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Gintautas KATULIS

DOCTORAL DISSERTATION

VICTIMIZED SOCIAL MISFITS: HOW DISCREPANCY FROM CLASSROOM VICTIMIZATION NORMS IS ASSOCIATED WITH EMOTIONAL AND BEHAVIORAL MALADJUSTMENT AMONGST EARLY ADOLESCENTS OVER TIME

SOCIAL SCIENCES,
PSYCHOLOGY (S 006)
VILNIUS, 2025

Mykolas Romeris University

MYKOLAS ROMERIS UNIVERSITY

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MYKOLO ROMERIO UNIVERSITETAS

Gintautas Katulis

VIKTIMIZUOJAMI SOCIALIAI NEPRITAPĘ: KAIP METŲ EIGOJE KLASĖS VIKTIMIZACIJOS NORMŲ NEATITIKIMAS YRA SUSIJĘS SU EMOCINĖMIS IR ELGESIO PROBLEMOMIS JAUNESNIŲ PAAUGLIŲ IMTYJE

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Adresas: Didlaukio g. 55, Vilnius.

Excerpts from: To this day

by Shane Koyczan.

"…I'm not the only kid who grew up this way,
Surrounded by people who used to say,
That rhyme about sticks and stones
As if broken bones
Hurt more than the names we got called,
And we got called them all…"

"…Our first day of grade three
When she got called ugly
We both got moved to the back of the class
So we would stop getting bombarded by spitballs,
But the school halls were a battleground,
Where we found ourselves outnumbered day after wretched day
We used to stay inside for recess,
Because outside was worse.
Outside we'd have to rehearse running away
Or learn to stay still like statues giving no clues that we were there…"

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1. INTRODUCTION

1.1. Relevance of the study

It can be risky to be different (Wright et al., 1986). The impulses for competition are deep-rooted and observed throughout living species, often manifesting as acts of aggression against those that are different (Donegan, 2012). Schools often serve as environments in which the roles of the aggressor and the victim surface through the acts of bullying (Allanson et al., 2015). Despite valiant efforts to decrease bullying victimization in schools and interventions showing partial success, the phenomenon is still prevalent and not fully understood requiring further investigation (Smith, 2016). Discerning the causative factors and underlying risks in the process of victimization remains elusive due to its chaotic nature (Sullivant et al., 2003).

Global data paints a concerning picture: amongst adolescents aged 15-16 over 15% of students experience physical victimization from peers, whereas more than 21% are subjected to relational victimization (Hosozawa et al., 2021, OECD, 2019). Even higher victimization numbers can be seen globally amongst younger adolescents aged 12-15 (Biswas et al., 2020). The same trend can be observed in Eastern Europe and the United States (Hosozawa et al., 2021, OECD, 2019). Developed regions like Western Europe report comparatively reduced incidents of victimization averaging at around 10% among early adolescents, regardless, the prevalence is still far from zero (Biswas et al., 2020).

It is difficult to overstate the snowballing effects victimization may have on youth. These repercussions are not merely emotional - manifesting as diminished self-esteem (Tsaousis, 2016), heightened depressive symptoms (Desjardins & Leadbeater., 2011), feelings of loneliness (Giletta, 2018), instances of suicidal ideation (Turner et al., 2013). The enduring psychological consequences of bullying often correlate with persistent interpersonal challenges, that can impair academic achievements, professional productivity, and overall well-being (Stapinski et al., 2014). The ramifications of victimization extend beyond current effects on the well-being of the victim, imposing long-term economic burdens upon society: adult victims of bullying are less likely to be employed and accumulate less wealth and are more likely to require healthcare signifying the economic burden of victimization (Brimblecombe et al., 2018).

Victimization perpetuates a closed cycle. Victims of peer bullying often experience higher levels of internalizing symptoms which, in turn, paradoxically increases susceptibility to subsequent victimization episodes (Reijntjes et al., 2010; Murray-Close et al., 2007). The aftermath of victimization often persists; even as students transition between educational settings or graduate into adulthood, the effects often remain: as evidence suggests that those who once bore the brunt of victimization are more predisposed to anxiety, internalized problems, and clinical diagnoses in their later years (Stapinski et al., 2014). Consequences of victimization extend beyond emotional disturbances but often transcend into behavioral outcomes as well (Reijntjes et al., 2011). A decline in academic performance may be impacted by prior victimization

(Espelage et al., 2013), a phenomenon possibly occurring due to heightened absenteeism (Juvonen & Graham, 2014). Troubled students are more inclined to skip school, resulting in negative perceptions by their teachers, which triggers further scenarios that compel disruptive behavior in class (Juvonen & Graham, 2014, Juvonen et al., 2000). Truants may also find themselves outside during school hours without many opportunities for prosocial activities or with other truant peers fostering chances for delinquent behavior (Rocque et al., 2017, Hanish & Guerra, 2002) expressed through further skipping school, stealing, and destruction of property (Bendixed & Olweus., 1999).

Interventions aiming to reduce peer victimization have reported promising outcomes in lessening instances of bullying and fostering a clearly safer environment for youth to develop (Evans et al., 2014). Western countries which instated comprehensive anti-bullying measures report diminished rates of victimization when contrasted with other regions (Ng et al., 2022) and successful interventions are noticed globally (Fraguas et al., 2021) as well as in Lithuania (Zuzevičiūte., 2023) and in the US (Gaffney et al., 2019). Unfortunately, success, while sought after, sometimes comes with unforeseen consequences. While many interventions succeeded in curbing bullying on a broad scale, an unintended consequence was unveiled: those children who continued to face bullying experienced heightened feelings of isolation, showcasing further increased internalizing symptoms, loneliness, and depressive symptoms (Garandeau & Salmivalli, 2019), as well as higher levels of behavioral problems (Liu et al., 2021). Recent findings suggest that this effect might transcend classroom environment and work at a national level, as findings presented in European conference of Developmental Psychology (ECDP) (Smith et al., 2023) indicate that in countries with lower victimization norms, those who remain victimized are worse off than the victims in countries with higher levels of victimization norms. This finding was confirmed in a recent publication (Agyekum-Hene et al., 2024).

In classrooms with lower levels of victimization norms, victimized students not only suffer from victimization but also become social misfits, worsening their condition (Garandeau & Salmivalli, 2019). This presents two problems: firstly, interventions aimed at reducing victimization in a classroom may inadvertently worsen conditions for the remaining victims and secondly, schools and classes with low victimization norms may have misfit victims for whom the classroom atmosphere is far from healthy. A greater understanding of this phenomenon could pave the way for educators and policymakers, offering them discerning insights into addressing the unique struggles faced by children who, perhaps driven by isolated victimization, exhibit signs of loneliness or aggression (Huitsing et al., 2019; Liu et al., 2021). It is evident that reverting to a median level of victimization, in order to ensure no child feels alienated, is neither a practical nor morally justifiable solution. However, understanding how being a social outlier is associated with increases in behavioral and internalized problems is paramount in identifying potential mechanisms for assistance.

1.2. Scientific problem and novelty

The relationship between feeling out of place, being a "social misfit" and experiencing decreased peer acceptance has long been established in research (Wright et al., 1986). Yet, as anti-bullying initiatives gain traction and demonstrate their effectiveness, there's an emerging urgency to delve deeper into this dynamic, particularly in the context of what's termed the healthy context paradox (Garandeau & Salmivalli 2019). This paradox suggests that as general descriptive victimization norms decrease, those who remain victimized feel even more isolated, and experience more internalizing problems (Laninga-Wijnen et al., 2023c). While explorations into how discrepancy from descriptive classroom norms of victimization results in behavioral and emotional outcomes for children remain scarce, there's some evidence that the association between victimization and depressive or internalizing symptoms appears more pronounced in classrooms where victimization is less normative (Yun & Juvonen., 2020). On the other hand, the understanding of how deviating from classroom victimization norms relates to externalizing problems—like conduct problems or delinquency—remains limited. Only one prior study from the cultural background of China tested whether externalizing problems of bullying victims are more pronounced in classrooms with lower victimization norms. Using cross-sectional data, the authors did find that the association between victimization and externalizing problems is more pronounced in classrooms with low victimization norms (Liu et al., 2021), however, they did not discern between relational and physical victimization types. Testing the association between the discrepancy from classroom victimization norms and externalizing symptoms in a Western sample is a novelty of this study.

Despite the hypotheses being tested, there are still questions that remain unanswered. One of the questions previously unanswered on the topic of the healthy context paradox is the homogeneity of the classroom (Laninga-Wijnen et al., 2023c). Previous studies gauged the average classroom victimization norms as the average of the classroom level of victimization (Gini et al., 2020). This ignores, however, the intricacies of similarity between the classmates. Consider two classrooms with identical average victimization levels. Their variability might diverge significantly. In one, all students might perceive victimization as moderate. On the other, half the students might perceive intense victimization while the remainder feel hardly any. Such distinctions in group homogeneity are addressed in this study through the employment of the Group Actor Partner Interdependence Model (G-APIM) (Kenny et al., 2012). Additionally, it remains ambiguous whether prior investigations factored in the individual being observed when calculating average classroom victimization (Garandeau & Salmivalli 2019; Liu et al., 2021). A singular individual's experience could markedly sway the average, either elevating or diminishing it. This is addressed in this study by calculating the classroom context separately for each individual in the class, excluding the focal individual from the calculation of classroom norms.

Furthermore, there's a notable scarcity of studies within the realm of the healthy context paradox that concurrently examine both peer- and self-reported victimization

and outcomes. Only two previous studies that stemmed from China used both self- and peer-reported measures of victimization and found significant results supporting the healthy context paradox predicting internalizing (Xiong et al., 2023) and externalizing problems (Zhao & Li, 2022) for self-report but not peer-reported data in both cases. This suggests that victimization measure type may play a role. It should be acknowledged that peer- and self-reported victimization are often weakly correlated (Oldenburg et al., 2015) and are also often associated with different outcomes (Košir et al., 2020). Therefore, another novelty of this study is that it probes the associations between discrepancy from classroom victimization norms and both internalizing and externalizing problems using both self- and peer-report data.

Additionally, no prior literature regarding the healthy context paradox examined both physical and relational victimization and their associations with internalizing and externalizing problems, specifically as a result of deviations from the typical classroom norms surrounding victimization. This study utilizes different types of victimization, as majority of previous studies measured victimization by merging physical and relational victimization together (Liu et al., 2021; Pan et al., 2021; Huitsing et al., 2019; Laninga-Wijnen et al., 2023c) this study looks at them separately. This is important because different types of victimization are associated with different types of outcomes, as physical victimization is more associated with externalizing problems and relational victimization more associated with internalizing problems (Sullivan et al., 2006) the same pattern could be distinguished in healthy context paradox. Additionally, gender differences could be revealed as the tendency is that boys are more inclined for physical victimization and girls are more inclined towards relational victimization (Herge et al., 2016).

Another novel aspect of this research is its cross-cultural approach, integrating samples from both Lithuanian and American student populations, thereby offering an enriched perspective and the possibility to validate findings across diverse settings. Considering that generalizability and replicability of findings in the field of psychology has been considered an issue (Anvari & Lakens, 2018), a combined sample offers immediate replication of the findings, suggesting that the findings may be more replicable.

Finally, this study uses a longitudinal approach to test the effects of healthy context paradox on changes in internalizing and externalizing symptoms. The majority of research in the field used cross-sectional data to look at concurrent associations (Yun & Juvonen, 2020; Liu et al., 2021; Huang et al., 2023a; Xiong et al., 2023) and while some did find longitudinal associations supporting the assumption that victimized social misfits are likely to experience increases in internalizing symptoms (Laninga-Wijnen et al., 2023c, Pan et al., 2021) no such research supporting increases in externalizing symptoms. The longitudinal approach allows us to discern the temporal relationships between victimization as a social misfit and subsequent changes in both internalizing and externalizing symptoms over time.

1.3. The Aim, Research questions, defense statements

1.3.1. Research aim

The main aim of this dissertation is to test whether dissimilarity to the descriptive classroom norms of physical and relational victimization is associated with increases in internalizing problems (loneliness and emotional symptoms) and externalizing problems (disruptiveness, physical aggression, delinquent behavior, and conduct problems) throughout the year in a combined sample of Lithuanian and USA early adolescence.

1.3.2. Research question

What is the longitudinal association between individual physical and relational victimization, classroom average levels of victimization, discrepancy from the descriptive classroom victimization norms, and homogeneity of the classroom on internalizing problems and externalizing problems?

1.3.3. Defense statements

Discrepancy from classroom victimization norms is associated with an increase in levels of externalizing and internalizing problems.

Victimized social misfits who are more discrepant from descriptive classroom norms of physical victimization experience increases in externalizing problems later in the year.

Victimized social misfits, who are more discrepant from descriptive classroom norms of relational victimization experience increases in internalizing problems later in the year.

1.4. Approbation of research and presentations

1.4.1. List of scienfitic publications related to dissertation

- Katulis, G., & Pilkauskaitė Valickienė, R. (2022). A systematic review of outdoor adventure education programs in schools. Social inquiry into well being, 20(2)
- Katulis, G., Kaniušonytė, G., & Laursen, B. (2023). Positive classroom climate buffers against increases in loneliness arising from shyness, rejection sensitivity and emotional reactivity. Frontiers in Psychiatry, 14.
- Katulis, G., Kaniušonytė, G., & Laursen, B. (2024). Extending the healthy context paradox to nonintervention settings: Escalating problem behaviors among victimized social outliers. *School Psychology*.

1.4.2. Presentations at conferences on the dissertation topic:

- G. Katulis. Patirtiniu ugdymu paremtų intervencijų efektyvumas mokyklose. Jaunųjų mokslininkų psichologų konferencija (JMPK). 2019, Vilnius, Lithuania.
- G. Katulis. Nuotykinėmis išvykomis paremtų intervencijų su mokiniais sisteminė analizė. Lietuvos psichologų kongresas (LPK). 2019, Vilnius, Lietuva.
- G. Katulis. The Unadventurous Life of a "Normal" Classroom. International camp-conference "Smithy of ideas" 2019, Kelmė, Lithuania
- G. Katulis. Outdoor adventures for a classroom. What? How? and Why? Social Innovation: Inclusiveness and Civic Mindedness (SOCIN). 2019, Vilnius, Lithuania
- G. Katulis, D. Šakinytė. The effect of perceived classroom peer context and victimization on internalized and externalized problems. International Society for the Study of Behavioural Development (ISSBD). 2022, Rhodes, Greece.
- G. Katulis, G. Kaniušonytė. Moderating effects of perceived classroom peer context on the relationship between shyness, victimization, and internalizing problems. European associaction for research on adolescence conference (EARA). 2022, Dublin, Ireland
- G. Katulis, G. Kaniušonytė, B. Laursen. Perceived positive classroom climate buffers against loneliness linked to shyness, rejection sensitivity and emotional reactivity. Society for research on adolescence annual meeting (SRA). 2023, San Diego, USA.
- G. Katulis. Skrolink kaip visi! Nukrypimas nuo deskriptyvių klasės socialinių tinklų vartojimo normų prognozuoja didesnę viktimizaciją. Jaunųjų mokslininkų psichologų konferencija (JMPK). 2023, Vilnius, Lithuania.
- G. Katulis. Victims Out of Sync: How Disparities in Victimization Impact Aggressive behavior Amongst Adolescents. European Conference of Developmental Psychology (ECDP). 2023, Turku, Finland.
- G. Katulis, G. Kaniušonytė, B. Laursen. Sveiko konteksto paradoksas – Kaip mažesnės klasės patyčių normos gali pabloginti situaciją likusioms aukoms. Lietuvos psichologų kongresas (LPK). 2024, Klaipėda, Lithuania.
- G. Katulis, G. Kaniušonytė. Healthy context paradox: How emotion suppression shapes victim responses to being social misfits. International Society for the Study of Behavioural Development (ISSBD). 2024, Lisboa, Portugal.

1.5. Definition of terms

- **Bullying:** Intentional, repeated, negative behavior by one or more individuals directed at a person who struggles to defend themselves. (Olweus & Limber, 2010)
- **Conduct Problems:** Manifestations of aggressive behavior, including fighting, lying, cheating, and opposing others. (Olweus, 2013; Kim et al., 2006)

- **Delinquent Behavior:** Acts characterized by truancy, theft, and property damage. (Bendixed & Olweus, 1999)
- **Descriptive classroom norms:** The prevalence of specific behaviors within a classroom setting. These norms are typically measured as the average frequency or intensity of each behavior among students within a particular classroom (Shin, 2017)
- **Discrepancy from descriptive Classroom Norms:** Often termed as "dissimilarity", this describes the deviation of an individual from the descriptive norms of a classroom regarding a specific trait, such as victimization. It reflects the average difference of an individual from the rest of the students in a class concerning the trait of interest (Kaufman et al., 2022)
- **Disruptiveness:** Behavior that is aggressive, oppositional, and hyperactive within a classroom environment. (Stormshak et al., 2000)
- **Group-Actor Partner Interdependence Model (GAPIM):** A methodological framework that facilitates the simultaneous modeling and analysis of intricate relationships between individual and group characteristics. (Garcia et al., 2015; Kenny and Garcia, 2012; Gommans et al., 2017)
- **Group-Person Dissimilarity Model:** This model proposes that associations between specific traits and behaviors and their outcomes in a group (e.g., behavioral or social outcomes like status) are mediated by the degree of similarity or dissimilarity between the individual and the group regarding that trait. (Wright, 1986)
- **Healthy Context Paradox:** A phenomenon showing that students victimized in groups with low victimization norms are worse off than those victimized in contexts with higher victimization norms. (Garandeau & Salmivalli, 2019)
- **Emotional Symptoms:** Refers to a set of psychological symptoms identified by Goodman's "Emotional Symptoms Scale". These symptoms include frequent complaints of physical ailments without apparent causes (e.g., headaches or stomachaches), a consistent sense of worry, tendencies to feel unhappy or tearful, apprehension or over-dependence in new situations, and a propensity towards unwarranted fears. Individuals exhibiting these symptoms often struggle with underlying emotional distress or related issues. (Goodman, 1997)
- **Loneliness:** A state characterized by a distressing sense of undesired social isolation, typically a result of perceived relational deficits. (Perlman & Peplau, 1981)
- **Physical Aggression:** Aggressive actions by a child, including hitting, pushing, or breaking objects. (Craig, 1998)
- **Physical Victimization:** The experience of receiving intentional physical harm or being threatened with such harm. This encompasses acts like hitting, punching, slapping, kicking, or any other physical assault. (Kennedy, 2020)
- **Relational Victimization:** Also known as social or relational aggression, this refers to behaviors that harm others by damaging or threatening their relationships or feelings of social acceptance. Such behaviors can include spreading

rumors, gossiping, socially excluding others, or manipulating friendships (Kennedy, 2020)

- **Victimization:** A concept often associated with the experience of being bullied. While bullying emphasizes the actions of the aggressor, victimization centers on the experience of the one subjected to these actions. Victimization covers a wide range of harmful actions directed at an individual, from physical and verbal attacks to relational and social ostracization (Geel et al., 2016).

2. LITERATURE REVIEW

2.1. The period of early adolescence

As children transition into adolescence, they are confronted with a tapestry of multifaceted challenges. Influenced by the onset of puberty and hormonal changes, children transition into unfamiliar terrain, seek to define their identities, and start perceiving their peers as increasingly important (Crone & Dahl, 2012). The social skills acquired during early childhood remain relevant, as youth who exhibited better social competence during childhood have fewer social problems during adolescence when these interpersonal relationships become paramount (Laursen & Hartl, 2013; Korhonen et al., 2014). During the period of adolescence, youth occasionally make irrational decisions, driven by a profound desire to discern their place in the world and ascertain their social standing (Shulman et al., 2015). Amplified by the innate longing for belonging and deep, meaningful relationships (Oberle et al., 2010), adolescence is particularly challenging for those deficient in social skills.

Typically, adolescence is defined as the period between ages 10 and 19, although some definitions extend it to 24 (Sawyer et al., 2018). Given this broad age span, it's imperative to be more specific when using the term adolescence. For the purpose of this study, our primary focus will be on early adolescence, which encompasses the latter half of primary school through most of middle school, specifically ages 9-15 (Sawyer et al., 2018). In our exploration of past research, the examples and insights highlighted will predominantly center on primary and middle school students, unless specified otherwise.

Facing victimization during adolescence can be particularly challenging. Even though victimization can manifest in childhood, it is during adolescence that victimized young individuals begin to create their social self-concept and craft a narrative defining their position in this world (Reese et al., 2010). When adolescents grapple with peer victimization and rejection, it profoundly influences their self-concept, potentially leading to enduring negative impacts unless counterbalanced by substantial social support from other sources such as supportive friends of parents (McDougall & Vaillancourt, 2015).

2.2. Problem and phenomenon of peer victimization

2.2.1. Defining victimization

Victimization is a broad term and regards the process of being harmed, often by other peers, and may refer to various forms of actions such as physical or verbal abuse, mistreatment, sexual abuse, etc. (Turner et al., 2006). Bullying on the other hand refers to the process of harming others, through intentional aggressive acts which are constant through time and on victims who are often weaker or in lower position and unable to defend themselves (Smith et al., 2008). Further in this study, unless specified

otherwise, bullying and victimization will be used interchangeably with bullying regarding the action of victimizing others and victimization as the process of being harmed. Additionally, both of these terms will regard victimization and bullying by peers in the school context and two main forms of victimization will be discussed mostly: physical victimization and relational victimization.

Physical victimization, also sometimes called overt victimization, reflects the experience of receiving intentional physical harm or being threatened with such harm. In this study, it will regard actions that include being hit, punched, slapped, kicked, or assaulted in other ways by one's peers (Kennedy, 2020).

Relational victimization, also sometimes regarded as social victimization, refers to the process of being verbally abused by peers or being harmed by damaging or threatening their relationships or feelings of social acceptance. Such behaviors can include spreading rumors, gossiping, socially excluding others, insulting, or manipulating friendships. Relational victimization has been scientifically associated with outcomes such as psychological distress, depression, anxiety, and other socio-emotional issues (Kennedy, 2020). Understandably, sometimes insults are separated as verbal victimization and not used interchangeably with relational victimization, therefore in the introduction we will use verbal and relational victimization separately, but in our analysis, relational victimization will include aspects of both relational and verbal victimization. As latent profile analysis with over 11,000 middle school students reveals, verbal and relational victimization often go together (Bradshaw et al., 2013).

A more recently manifested form of victimization is cyberbullying. It is characterized as bullying conducted through electronic modes of communication (Olweus & Limber, 2018). Although cyberbullying is relatively widespread, it is reported to be less prevalent than traditional forms of victimization (Brochado et al., 2021). Research indicates that the emotional distress experienced by victims of cyberbullying may be less severe compared to that of traditional bullying victims (Grigutytė et al., 2019). Despite the prevalence of cyberbullying, this study concentrates on traditional forms of victimization.

2.2.2. Prevalence of victimization

Victimization remains a pressing global issue, with recent statistics underscoring its widespread prevalence. According to a comprehensive global meta-analysis based on the Programme for International Student Assessment (PISA) with 15-16 year olds, collected in 2018 (the most recent current global data), 15.2% of school students worldwide have experienced physical victimization. Additionally, 20.9% have faced relational victimization, and 21.4% have been verbally victimized. Even more troubling, nearly one-third (30.4%) of children reported being frequently victimized in some manner (Hosozawa et al., 2021, OECD, 2019). Western Europe has made significant strides in reducing victimization rates. Data shows that only 9% of students experienced physical victimization, 13.4% faced relational victimization, 15.4% were verbally victimized, and 21.8% reported frequent victimization in one form or another.

Eastern Europe's statistics hover closer to the global average: 13.3% of students were physically victimized, 22.3% faced relational victimization, 17.5% were verbally victimized, and 28% experienced frequent victimization. Lithuania's numbers align closely with Eastern Europe's averages, with rates of 13.1% for physical victimization, 15.7% for relational victimization, 16.8% for verbal victimization, and 22.4% reporting frequent victimization (OECD, 2019). The USA, while showing commendable figures in addressing physical victimization at 7.2%, has higher rates for relational (17.8%) and verbal (19.2%) victimization. Notably, 25.9% of students in the USA reported frequent victimization, a figure that surpasses that of Lithuania (Hosozawa et al., 2021; OECD, 2019).

A slightly less country-specific global review of the prevalence of victimization based on the Global School-based Student Health Survey shows very similar findings with younger adolescents. Amongst 12-15-year-olds in Europe, the number of children who experienced peer victimization in the last 30 days ranged from 8 to 10% (Notably the research combined Western and Eastern Europe). American region, which involved both North and South Americas shows concerning numbers with 27-29% of 12-15-year-olds reporting being victimized by peers in the last 30 days (Biswas et al., 2020). It's important to state that this research did not distinguish between different types of victimization. The lower numbers in Europe may indicate that the various interventions and cultural initiatives oriented towards decreasing bullying are working. Regardless, looking at the global data, bullying victimization is far from extinct, and despite the major interest placed in it, still a prevailing global phenomenon.

2.2.3. Victimization across different ages

Victimization experiences vary across different age groups. Research on peer victimization predominantly focuses on primary and secondary school students (Oncioiu et al., 2020). A trend can be observed. As children become older and transition towards middle school, there tends to be a decline in victimization prevalence, which is usually the most pronounced during primary school years. A recent meta-analysis reveals that these levels begin to wane as students transition to middle school (Oncioiu et al., 2020). It could also point towards shifts in the nature of victimization. Some research indicates that while physical victimization might reach its peak in primary school and start decreasing in middle school, it could also partially transition into relational victimization during the latter phase (Underwood et al., 2009; Salmivalli & Kaukiainen, 2004). Another study that followed over 1,000 students from grade 3 to grade 6 observed that the association between being victimized and reacting aggressively tends to wane as children grow older, whereas the association between being victimized and withdrawal increases (Boivin et al., 2010). Considering that physical victimization is more associated with physical aggression and relational victimization with internalizing problems (Casper & Card, 2017) and that physical victimization transitions to relational victimization as children move toward adolescence (Underwood et al., 2009) this could imply that students either stop reacting to victimization

aggressively or that they face more relational victimization which is more likely to provoke withdrawal rather than aggression.

If victimization does not decrease but rather changes from physical to relational, as children develop emotional regulation skills and adopt behaviors that deter physical aggression (Casey et al., 2019), the prevalence of relational aggression can escalate, becoming a more pronounced instrument of harm. Furthermore, as youngsters transition into adolescence, the significance of peer relationships intensifies (Laursen & Hartl., 2013), subsequently augmenting the potential impact of relational victimization. Some studies highlight that trajectories of victimization over time differ based on its severity. For instance, a longitudinal study that followed over 2,000 children noticed that low-level victimization remains relatively consistent between ages 7 and 13, indicating that a comparable proportion of youth experiences consistent low-level victimization during these years (Geoffroy et al., 2018). Contrarily, the same study noticed that instances of severe victimization seem to diminish with age (Geoffroy et al., 2018), possibly accentuating the presence of social outliers.

While the levels and forms of victimization may shift over time, the trajectory of outcomes appears to remain relatively consistent across different age groups, although the association has intricacy. In the realm of internalizing problems as a response to victimization, all age brackets exhibit comparable effects. One meta-analysis, which reviewed 85 studies, discerned no age-based differences in the strength of the association between victimization and the emergence of internalizing problems (Christina et al., 2021). However, these findings are not unequivocal and may be dependent on other variables such as the form of victimization. A comprehensive meta-analysis suggested that the toll of physical victimization on internalizing problems diminished with age, however, in contrast, relational victimization had a more pronounced impact on these symptoms (Casper & Card, 2017). A possible explanation is that as young individuals mature, the emphasis on social relationships magnifies (Laursen & Hartl., 2013), and their ability to self-regulate and control their emotions drastically improves (Casey et al., 2019). Those who continue to endure physical victimization might be the ones struggling with anger management (Cooley et al., 2016). Consequently, they might manifest their distress outwardly through aggressive behaviors, rather than internalizing it.

The association between victimization and externalizing problems based on age presents a similarly nuanced picture. One meta-analysis reviewing 18 longitudinal studies found no substantial age-related differences in the manifestation of externalizing problems following victimization (Reijntjes et al., 2011). In contrast, another meta-analysis with 135 reviewed studies (notably not all longitudinal) viewed physical and relational victimization separately and noticed that the effects of physical victimization on externalizing problems intensify as children grow older whereas the association between relational victimization and externalizing problems wane with age (Casper & Card, 2017). This might suggest that as children mature, relational victimization could lead to fewer externalized behaviors.

2.2.4. Defining the victim

Victimization is a multifaceted process, encompassing more than just the dichotomy of the bully and the victim. Beyond these primary roles, a spectrum of secondary players emerges, including observers, reinforcers, and preventers (Lansu et al., 2023). Moreover, the lines demarcating these roles can blur, as an individual may simultaneously or sequentially occupy multiple positions—being a bully in one instance, a victim in another, and an observer elsewhere (Malamut et al., 2020). Complication in defining the victim also is strengthened by the existence of bully victims – those youth that are bullied and are victimized at the same time (Povilaitis, 2008). The motivations that drive bullies can vary based on their personal attributes and the prevailing group norms. For instance, in groups where bullying is seen as a popular and accepted behavior, it might be leveraged to climb the social ladder. In contrast, in groups where such behavior is less normative, bullying could emerge as an outlet for social frustrations (de Vries et al., 2021; Laninga-Wijnen et al., 2021).

In the context of this study, the primary focus rests on the victimized individuals. Even though victims experience various health and emotional problems (Zaborskis & Vareikienė, 2008), not everyone is equally predisposed to be victimized. Individual traits associated with being victimized are often signs of physical weakness or expressions of internalizing problems (Hodges & Perry, 1999), lack of problem-solving and social skills (Cook et al., 2010) as well as disruptive behavior, reactivity (Reijntjes et al., 2011) or lower social or academic status (Wynne & Joo, 2011). Other studies find convincing arguments that some students are genetically predisposed to victimization. A twin study showed that lower IQ, for example, is associated with chronic victimization risk (Bowes et al., 2013).

Quiet and more depressive youth may be less inclined or less able to defend themselves, making them the perfect targets for victimization (McLaughlin et al., 2009). Without well-developed social skills, they are less likely to have friends who will help them defend themselves or defend them, creating situations where the perpetrators may lack motivation to stop the victimizing behavior (Cook et al., 2010). Yet aggressive behavior may also provoke victimization (D'Urso & Symonds, 2022). Aggressive youth may provoke losing situations in which classmates may attempt to diminish one's aggressive climb for status and attention by physically victimizing or rejecting them. Despite the nuanced association between various individual characteristics and victimization, a clear pattern is visible. As various meta-analyses reveal, both internalizing and externalizing problems have a bidirectional relationship with victimization, meaning that they are both the antecedents and the result of peer victimization (Christina et al., 2021; Reijntjes et al., 2011).

Therefore, when looking at victim reactions to victimization two predominant categories can be devised: the passive victim and the provocative victim (Salmivalli et al., 1996). The provocative victim, occasionally referred to as the aggressive victim, is more frequently represented by boys—potentially attributable to gender variances in physical victimization (Schwartz et al., 2001). These individuals often manifest

impulsive, hyperactive, and emotionally dysregulated behaviors. Typical reactions can range from classroom disruptions and combative confrontations to other overtly defiant actions (Schwartz et al., 2001). Among provocative victims, bully-victims are present as well – those students who are bullied, but at the same time bully others as well (Povilaitis, 2008) Contrastingly, passive victims exhibit a more subdued response to their adverse experiences. Characterized by an anxious disposition (Salmivalli et al., 1996), they tend to internalize their distress, consequently displaying heightened depressive symptoms and other internalizing problems (Hanish & Guerra., 2004).

Classifying victims into specific types may oversimplify the nuances of their experiences, especially when there might be numerous unknown variables influencing their reactions. Nonetheless, it is evident that victims tend to display either more aggressive or more passive reactions. A recent meta-analysis provides further insight into this behavior, suggesting that the nature of victimization, rather than inherent child characteristics, might drive these responses. Specifically, victims of physical victimization exhibited a higher propensity for aggressive behavior, while victims of relational victimization showed a tendency towards internal reactions (Casper et al., 2017). However, considering the reciprocal relationship between victimization and behavioral problems (Riley et al., 2019) or internalizing problems (Vaillancourt et al. 2013), the question remains if aggressive victims are more likely to be physically victimized, or if physical victimization provokes physical aggression as understanding this dynamic could help create better intervention approaches.

2.2.5. Context of victimization

Victimization does not occur in isolation. It unfolds within a broader social context, with the environment playing a critical role. Schools are the primary settings for these incidents, making their climate a potential determinant of the nature and aftermath of victimization (Martínez et al., 2024). This climate includes elements such as safety, the learning environment, interpersonal relationships, and overarching structure (Cohen et al., 2009). A meta-analysis of over 150 papers on peer victimization suggests that a positive school climate is generally associated with a lower prevalence of victimization (Cook et al., 2010). Further adding to these findings, multilevel studies have identified specific school-wide attributes, such as respect for diversity (Gage et al., 2014) and social cohesion (Zaykowski & Gunter, 2012), as correlating with decreased instances of victimization. However, not all studies yield consistent results. For instance, a study involving 19 schools found that a generally positive school climate does not ensure reduced victimization in classrooms (Wilson, 2004). Moreover, when considering the outcomes of victimization, the picture becomes even more nuanced. Two studies, each involving over 1,000 3rd-6th grade participants from 50 schools, observed that school climate does not mitigate the consequences of victimization on mental health or academic achievement (Wang et al., 2014; Wang et al., 2018). Therefore, while research indicates that school climate plays a significant role in mitigating victimization, its effects on the outcomes of victimization appear to be less pronounced.

An important aspect of the classroom environment is the peers. Although research suggests that heightened perceptions of classroom cohesion can reduce victimization (Cava et al., 2010; Zaykowski & Gunter, 2012), the whole picture is nuanced. For instance, one study with 881 3rd and 4th graders revealed that in classrooms with greater cohesion (characterized by a dense network of friendship cliques encompassing many students), victims were less disliked than in less cohesive environments (Ahn et al., 2010). Conversely, another study with over 6,000 Spanish seventh and eighth graders found that in such cohesive settings, experiences of rejection led to increased chances of victimization (Martín Babarro et al., 2017). This might imply that in classrooms where the majority share close bonds, those on the periphery face heightened rejection finding themselves as "Social misfits" (Wright et al., 1986).

Classroom composition and norms significantly influence student behavior and outcomes. Students who deviate from the majority's descriptive classroom norms, whether it's in terms of the number of friends, social media connections, or even disruptive behavior, tend to experience higher rates of victimization (Kaufman et al., 2022). Another study with over 1000 students from 45 classrooms demonstrated that classroom environments in which defending a victim poses a threat to the defender, such as the risk of becoming victimized or losing status, witnesses higher levels of victimization (Laninga-Wijnen et al., 2021). Conversely, in classrooms where defending behavior boosts one's popularity, the incidence of victimization decreases (Laninga-Wijnen et al., 2021). The centralization of peer victimization (how centralized victimization is on a particular few students in a class) is crucial to consider too. A longitudinal study with 1020 elementary school students from 54 classrooms notes that in classrooms where a select few individuals are persistently targeted there is an escalation in victimization over time, suggesting that victimization seems to grow and does not stay focused on a select few (Serdiouk et al., 2015). This pattern might arise from the high visibility of victimization in such environments, leading to its perception as a tool for status elevation (Goodboy et al., 2016). Consequently, high-status students might then target their lower-status peers to maintain or enhance their stature. Students often emulate popular behaviors: in contexts where victimization correlates with popularity, its prevalence increases, yet it carries fewer negative repercussions (Dijkstra et al., 2008). Interestingly, while promoting defending norms related to status seems like a proactive approach, research has shown that merely defending victims doesn't always alleviate their depressive symptoms or bolster their self-esteem. Despite victims feeling a greater sense of belonging when defended, their emotional well-being often may remain unchanged, a recent insight demonstrated in a longitudinal study involving over 5,000 students from 238 classrooms (Laninga-Wijnen et al., 2023a).

2.3. Group norms and the Person-group similarity

Before delving into mechanisms responsible for the association between victimization and its emotional and social outcomes, it's beneficial to establish a solid foundation for this study. As research on bullying and victimization advances and the

broader spectrum of systems related to such behaviors are recognized as interconnected, the significance of Bronfenbrenner's Ecological Systems Model in this field becomes evident (Hong & Espelage, 2012). Victimization encompasses more than just the bully and the victim. It spans from the microsystem of the classroom (Thornberg et al., 2018) to the macrosystem of the culture where victimization occurs (Smith et al., 2023), highlighting the complex interplay throughout the process of victimization. Given that all social dynamics occur within interrelated systems (Bronfenbrenner & Morris, 1998), studies indicate that classrooms that are less hierarchical and encourage the defense of victims can lessen the likelihood of victimization (Saarento et al., 2015). The socioeconomic and academic status of the country where the students reside also plays a part (Marsh et al., 2023). Thus, it's crucial to determine the framework through which we examine the complex relationships between a young person's victimization and their subsequent reactions. While acknowledging the interactions among all systems, this study mainly concentrates on the relationship between an individual and their microsystem, specifically the similarity or dissimilarity to classroom descriptive norms. However, we must first define what it means to be similar or dissimilar to that group.

Group norms are often understood as rules and order of how to behave in the group (Nipedal et al., 2010). They are fueled by our innate need to belong, bringing us the ability to interact with one another relatively safely and know what to expect from one another (Baumeister & Leary, 1995). Groups tend to ostracize and reject those who do not uphold certain standards described as group norms. As a result, an impetus to conform emerges, ensuring alignment with the behavioral expectations set by the group (Shulman et al., 2017). In the realm of group norms, while there's a rich variety of definitions and categories, in research, four types stand prominently: subjective norms, descriptive norms, injunctive norms, and popularity norms.

Whereas subjective and descriptive norms bear a similarity, their divergence arises from their operationalization. Subjective norms, enjoying wider academic use along with significant criticism, reflect individual perspectives of the predominant behaviors within a group, albeit from a subjective lens. Descriptive norms, on the other hand, reflect a more objective perspective on group norms, operationalized as the average level of manifestation of specific behaviors in the group (Shulman et al., 2017). Although, some scholars define descriptive norms as individual beliefs about the widespread nature of certain behaviors, which can occasionally blur the lines between these terms, since on such occasions descriptive norms are operationalized as subjective (Rimal & Real., 2005). Injunctive norms represent one's interpretation of expected (as opposed to common) behaviors. However, the ambiguity in its operationalization often leads to it not being used in research (Rimal & Real., 2005). Popularity norms are emerging in contemporary research. These norms reflect behaviors both exhibited and endorsed by high-status and popular peers within groups (Pinho et al., 2021). These norms are often operationalized as an average correlation between popularity and trait or behavior of interest.

In the exploration of person-group similarity, both individual comparisons and

group norms play pivotal roles. Wright and others (1986) coined the term "social misfit", which encapsulates the notion that it isn't necessarily one's similarity to the group that gives status and acceptance. Rather, it's the dissimilarity that often predicts rejection. Thus, it's the children who stand out that are frequently marginalized. It's not always evident which specific behaviors foster acceptance or rejection; instead, the dynamic interplay between the individual and the group is what may determine the outcomes (Rubin et al., 2008).

The profound consequences of rejection must be emphasized. Commonly, two primary mechanisms emerge in response to ostracization. The first is aggressiveness. A segment of children, rather than displaying distress, respond to rejection by manifesting violent, aggressive, and delinquent behaviors, possibly as coping strategies against perceived injustices. The second mechanism, in stark contrast, is withdrawal. This retreat often manifests as internalizing problems, encompassing conditions such as anxiety and depression (Juvonen, 2013).

However, even when observing the phenomenon that children who do not align with the group norms are at lower status (Boivin et al., 1995) two questions emerge in the attempt to understand the mechanisms between person-group dissimilarity and internal and external outcomes. Why do peers reject the social misfit? And why does being rejected have negative outcomes?

Looking at these questions broadly enough we encounter evolutionary reasons for peer rejection as a convenient strategy for the well-being of the group. Group norms give stability and direction to the group, and adherence to them creates a safe and predictable environment. Those who do not adhere to these groups create a certain danger and in the interest of group goals, it is best to either "remove" such individuals or give them sufficient cause to adhere to the group norms (Noblit & Henrich, 2023). Since for the individual, it is significantly safer to remain part of the group than be rejected or ostracized, rejection can be sufficient reason to attempt to adjust one's behavior to match the behavior of the group. Possibly for this reason, people tend to be sensitive to both positions of their status in the groups as well as sensitive to rejection (Ellis et al., 2011).

However, the individual desire to match the group norms may be also moderated by how much the individual identifies with the group. A longitudinal study with 190 students found that students who identified with the group that was more inclined to delinquent behavior were also more inclined to delinquent behavior later in the year (Kiesner et al., 2002). Regardless, the findings should be taken with caution due to the low sample size. Follow-up studies for the effect were also not discovered. Similarities in personality also play a role, a study with 1108 early adolescents found that those who are more dissimilar to their classmates in extraversion, neuroticism, and Machiavellianism, were more likely to be victimized (Boele et al., 2017). Overall, dissimilar students are less preferred, and certain characteristics may strengthen the sense of dissimilarity, causing rejected students to feel that they need to regain their status in the group through various strategies.

2.4. Theoretical approaches to potential mechanisms of the association between victimization and adjustment problems

Before exploring the mechanisms through which victimization relates to both internalizing and externalizing outcomes, it's essential to introduce several theoretical approaches. Although this study primarily relies on group norms and person-group dissimilarity (Wright et al., 1986) as its foundation, this model alone doesn't fully explain the mechanisms accounting for the relationship between victimization and maladjustment or the association between being perceived as a social misfit and victimization. To address these gaps, several other theoretical frameworks that can offer insights into the underlying mechanisms will be presented. The presented theoretical frameworks are presented to assist in explaining the potential mechanisms between victimization, dissimilarity to classroom norms, and various psychological and behavioral outcomes.

Social comparison theory (Festinger, 1954).

Before the advent of the person-group similarity model, Festinger proposed the enduringly relevant social comparison theory in 1954. This theory elucidates the inherent human tendency to contrast oneself with others within a relevant group (Geber et al., 2018). Generally, people either engage in upward comparisons (contrasting themselves with those perceived as superior in some aspect) or downward comparisons (contrasting with those viewed as inferior). Interestingly, even though individuals predominantly engage in upward comparisons, the effect of this comparison is not positive, rather often leads to self-deflating outcomes (notably, self-deflation is also important when encountered in balance). This emphasizes the psychological importance of having referential points for downward comparison, as they can enhance self-esteem and overall well-being (Geber et al., 2018). The foundational principles of this theory are essential for understanding why dissimilarity from a group in levels of victimization correlates with maladjustment. One perspective suggests that victimized students may find themselves only able to make upward comparisons, leading to an inevitable feeling of self-deflation or a sense of unfairness (Pan et al., 2020).

Social information processing model (Crick & Dodge, 1996).

The Social information processing model delves into the intricate ways in which individuals encode and decipher social cues. Central to this model, and particularly pertinent to this study, is the notion that individuals internalize specific cues and cultivate interpretations based on these encodings. These internalized interpretations then guide individuals in formulating goals and devising strategies to navigate diverse situations. In their seminal work, Crick & Dodge (1996) used hostile attribution as a provocative mechanism for children to react aggressively. This refers to a scenario wherein, if a child discerns a behavior as hostile, they display an increased propensity towards an aggressive reaction, thus manifesting what is identified as reactive aggression. Conversely, if an individual discerns aggressive behavior as an instrumental

pathway to realize specific objectives under certain circumstances, they may exhibit what is termed as proactive aggression. A challenge that emerges, however, is the occasional misinterpretation by children, wherein they mistakenly perceive benign social cues as hostile. When these aggressive responses, rooted in such misinterpretations, fail to yield the desired outcomes, it can culminate in internalizing problems. This is often an outcome of flawed social information processing (Bell et al., 2009). This cognitive pattern finds its underpinnings in schematic thinking. As children assimilate various social schemas, they subsequently develop a perceptual bias, influencing their responses to the world around them. Models of social information processing are both predictive and resultant of victimization. This suggests a cyclical nature wherein victims might increasingly perceive the world through a hostile lens. Simultaneously, those with a predisposition to view the world as antagonistic often inadvertently shape environments that reinforce this perspective (van Reemst et al., 2016).

General strain theory (Agnew, 2006).

To better comprehend the connection between peer victimization and externalizing problems, the general strain theory offers valuable insights. When children are subjected to strain, as evidenced by physical and emotional threats from their peers, they undergo negative emotional responses (Hay & Meldrum, 2010). Within the framework of this theory, the most potent stressors are those that persist over time and are perceived as unjust. In an effort to alleviate this strain, individuals might manifest external behaviors, such as delinquency or conduct problems, particularly when they exhibit poor anger management (Cullen et al., 2008). In less frequent instances, they may show internalizing problems like eating disorders (Hay & Meldrum, 2010).

The theories presented lay the groundwork for examining the potential mechanisms involved in the outcomes of victimization. The General Strain Theory (Agnew, 2006) illuminates our understanding of why students who experience unjust maltreatment might resort to destructive or internalized coping strategies. Conversely, the Social Information Processing Model (Crick & Dodge, 1996) and the Social Comparison Theory (Festinger, 1954) provide a framework for the cognitive mechanisms linked to experiences of victimization. The Social Comparison Theory deepens our insight into how a social misfit might find themselves in a situation where they cannot see themselves as equals, thereby intensifying their sense of injustice. The Social Information Processing Model offers a clearer view of the potential continuous bidirectional associations between victimization and both internalizing and externalizing behaviors.

2.5. Outcomes and mechanisms of victimization

Victimization has a snowballing effect. The immediate and long-term outcomes of victimization are cause for alarm, not just for the individuals directly affected but for the society as a whole. The consequences of being victimized often serve as catalysts for further instances of victimization or predictors of future vulnerabilities (Vaillancourt et al., 2013). Victimization outcomes of pupils are typically placed into three

broad categories: *Internalizing problems*: psychological and emotional distresses that individuals undergo, often manifesting as anxiety, depression, withdrawal, and other mental health challenges (McConaughy & Skiba, 1993); *Externalizing problems*: Outward reactions or behaviors in response to victimization, such, as aggression, rebellion, or other disruptive actions (Keil & Price, 2006); *Academic Difficulties*: academic challenges, ranging from a dip in grades and performance to a complete disengagement from the academic environment (Schoeler et. al., 2018).

It's important to note that these categories aren't siloed but rather deeply interconnected, with one often leading to or exacerbating the other (Juvonen & Graham, 2014; Juvonen et al., 2000). For instance, a student who internalizes their plight might experience academic difficulties due to increased absences or a lack of concentration. Similarly, a student acting out (externalizing problems) might alienate their peers and teachers, leading to academic struggles. However, in this study, the primary lens of examination will be focused on the internalizing and externalizing problems, given their profound short- and long-term implications (Schoeler et al., 2018).

In public discourse, the link between victimization and internalizing problems is widely acknowledged. Such symptoms encompass a range of emotional and psychological distresses: loneliness, school anxiety, depressive symptoms, generalized anxiety, diminished self-esteem, suicidal ideation, illicit drug use, and even altered self-concept (Reijntjes et al., 2010). These aren't fleeting states; they can persist, shadowing an individual into adulthood. Previous studies underscore the long-term repercussions of victimization, including heightened depressive symptoms, eroded self-esteem (Isaacs et. al., 2008), increased anxiety, compromised general health, tendencies toward suicidal ideation and actions, as well as heightened consumption of alcohol, tobacco (Moore et al., 2017), and sleep disturbances (van Geel et al., 2016).

While victimization tends to cause internalized problems, the trajectory of its aftermath varies across individuals. The severity of its repercussions can indeed attenuate over time, particularly if the individual is fortified by robust support systems or certain intrinsic attributes. A recent systematic review underscores a significant, protective factor of friendships (Schacter et al., 2021). Children bolstered by meaningful social relationships often perceive the effects of victimization with a relatively muted sting (Davidson & Demaray, 2007). Similarly, school connectedness can act as a counterweight to the toll of victimization (Loukas & Pasch, 2013). This aligns with a pivotal theme of this study: those branded as "social misfits" may have difficulty weaving meaningful social relationships and nurturing a sense of belonging within their schools, thereby confronting exacerbated repercussions from their victimized states (Huitsing et al., 2012).

Family support also acts as a buffer, diminishing the lingering effects of victimization on internalizing problems (Isaacs et. al., 2008). In many cases, parental involvement and school climate accommodating victimization prevention buffers the negative outcomes of victimization (Wang et al., 2018). The individual's inherent characteristics are by no means passive bystanders in this dynamic. An inquiry into high school students revealed that internal religiosity can act as a buffer against victimization's

onslaught (Helms et al., 2015). Further research posits that a future orientation, a belief that the storm of victimization is but a transient phase, can serve to ward off feelings of hopelessness and curtail depressive symptoms (Hamilton et al., 2015). In the realm of self-belief, authentic self-esteem, rooted in the conviction that challenges bear profound meaning, can enable youth to rise above the adversities of victimization, steadfast and undeterred (Boulton & Macaulay, 2023).

Defining internalizing problems for this study

For the purposes of this study, the term "internalizing problems" serves as an umbrella term to broadly describe two separate variables included in this research: emotional symptoms and loneliness. These variables were selected due to their established association as outcomes of victimization (Christina et al., 2021; Guo & Li, 2022; Storch & Masia-Warner, 2004).

Given the introspective emotional nature of the aforementioned variables, it is apt to group them under "internalizing problems." However, a few clarifications are in order. Research on internalizing problems often encompasses depressive symptoms (Gorrese, 2016), leading to potential questions about the congruence of emotional symptoms with this definition. The term "emotional symptoms" finds its roots in Goodman's Strengths and Difficulties Questionnaire (Goodman, 1997). Studies have validated that emotional symptoms predict depressive disorders (Goodman et al., 2003), a finding that was recently corroborated (Armitage et al., 2023). This suggests that the emotional symptoms measured in this study are a fitting representation of depressive symptoms. Furthermore, our study incorporates the concept of loneliness, a variable frequently classified under the term "internalizing problems" in past research (Danneel et al., 2019; Casper & Card, 2017). While these variables are distinct, they are interconnected, and the correlation between loneliness and depressive symptoms stands at around .44 (Calandri et al., 2021).

Defining externalizing problems for the study

Externalizing problems represent the other dimension of outcomes. To the public, this might manifest as the image of an aggressive victim. While the undeniable link between internalizing problems and victimization is well-documented (Reijntjes et al., 2010; Murray-Close et al., 2007), it's crucial not to overlook the dichotomy wherein externalizing problems are frequently identified as both precursors and results of victimization (Reijntjes et al., 2011). It's not uncommon for victims to find solace in conduct problems, delving into delinquent behaviors (Walters, 2021), or expressing their internal distress through physical aggression (Sullivan et al., 2006). Especially notable is the escalating cycle in which aggressive victims, perhaps inadvertently, create scenarios that provoke counterattacks from their peers, thereby perpetuating their victimization (Pouwels et al., 2019; Ettekal et al., 2022).

For this study, "externalizing problems" encompasses the variables of disruptiveness, conduct problems, physical aggression, and delinquent behavior. All these variables have been previously classified under the "externalizing problems" category in

research and have demonstrated associations with victimization (Reijntjes et al., 2011; Hodges & Perry, 1999; Casper & Card, 2017; Schoeler et al., 2018). This affirms the suitability of incorporating these variables into our study as measures of externalizing problems.

2.6. Individual differences in victimization outcomes

It would be an oversimplification to categorize victimized children as purely provocative victims with externalizing problems or passive victims with internalizing problems as their responses to bullying. Evidence reveals a more nuanced picture. As described in a systematic literature review, aggressive victims, those displaying disruptive and aggressive behaviors, tend to exhibit higher internalizing problems such as loneliness and emotional distress compared to their passive counterparts (Schwartz et al., 2001). As these children employ aggressive responses, they often face heightened rejection (Christina et al., 2021). Conversely, passive victims commonly seek assistance from external sources, such as teachers, a finding corroborated by a qualitative study delving into the coping strategies of peer-bullying victims (Evans et al., 2017).

This paints a scenario where victimization amplifies both internal and external reactions. Most victims display increased internalizing problems like emotional distress and loneliness. But certain aggressive victims also manifest externalizing behaviors. In essence, while most victims grapple with internal struggles, only a subset acts out behaviorally (Gong et al., 2021). The kind of victimization, whether physical or relational, also plays a role in these outcomes. Physical bullying victims tend to show more externalizing behaviors (Casper et al., 2017), but the chicken-and-egg question remains: Does the type of victimization shape the response, or do individual traits dictate the type of bullying encountered?

It's plausible that individual traits dictate the victim's reaction to victimization. Illuminating this perspective, a longitudinal study focusing on young adolescents, utilizing peer-reported victimization measures, unveiled that those with a hostile attribution bias exhibited more externalizing problems. In contrast, a tendency towards self-blame correlated with internalizing problems (Perren et al., 2013). Such findings lend credence to the notion that children's perceptions of victimization significantly influence their responses. Gender dynamics further complicates the equation. A cross-sectional study involving young adolescents, drawing upon peer-reported victimization measures, discerned distinct gendered patterns. Typically, girls manifested more internal reactions, accompanied by a sense of helplessness, while boys often responded externally, resorting to counter-aggression. Intriguingly, such aggressive reactions often served to exacerbate victimization (Salmivalli et al., 1996).

Intrinsic personal traits can act as mitigating factors against the adverse effects of victimization. A pertinent example is the concept of locus of control, which has been shown to moderate the relationship between victimization and both externalizing and internalizing problems. This was substantiated by a longitudinal study where primary school students self-reported instances of victimization (Gong et al., 2021).

As touched upon earlier, children who feel a lack of control over their situations are likely more vulnerable than their counterparts who believe they exert some degree of influence over external events.

Emotional regulation is another critical facet. Longitudinal research focused on adolescents aged 16-17, relying on self-reported victimization measures, has revealed that both behavioral and cognitive regulation serves as a mediator in the relationship between victimization and internalizing problems (Adrian et al., 2019). In a parallel vein, a cross-sectional study pinpointed that alexithymia - characterized by a difficulty in recognizing and articulating emotions - mediates the connection between victimization and internalizing problems (Prino et al., 2019). This underscores the possibility that heightened internalizing problems could be attributed, in part, to children's struggles to articulate the emotional turmoil spurred by victimization.

Furthermore, nuanced facets of emotional regulation emerge when considering other research. For instance, a longitudinal study involving primary school students, relying on both self- and teacher-reported measures, illustrated that the ability to regulate feelings of sadness and worry can dampen the impact of victimization on internalizing problems (Cooley et al., 2022). On a related note, the management of anger was found to moderate the linkage between victimization and externalizing problems, as observed in a longitudinal study with young adolescents employing self-reported measures of victimization (Kaynak et al., 2015; Cooley et al., 2016).

Given the interdependent relationship between victimization and externalizing problems, it's pivotal to underscore that the very traits shielding individuals from the severe repercussions of victimization also safeguard them from victimization itself. Longitudinal research involving young adolescents, anchored in self-reported measures of overt victimization, indicates that enhanced anger regulation is associated with reduced instances of physical victimization (Riley et al., 2019). Further amplifying this understanding, longitudinal studies spanning ages 6 to 17 have highlighted an intriguing pattern: children who exhibited the highest levels of externalizing problems at the age of 6 consistently faced heightened levels of self-reported victimization throughout the observed duration (Oncioiu et al., 2020). In a compelling juxtaposition, while internalizing problems didn't initially serve as predictors for victimization in the earlier years, they began to assume this role as time progressed. This shift might stem from the evolving perceptions of peers, where internalizing problems, which perhaps were initially overlooked, became increasingly less appealing traits as children matured (Oncioiu et al., 2020

The prevailing notion suggests stark differences in how boys and girls experience victimization, and while there is truth to this, the narrative isn't entirely black and white. One consistent finding across multiple research studies and meta-analyses is that boys tend to be more at risk of physical victimization (Casper et al., 2017). This aligns with the observation that boys naturally exhibit higher physical aggression than girls (Carlo et al., 1999). Social dynamics play a part too; boys often congregate in larger groups where escalations to physical altercations are more likely, whereas girls typically interact within smaller circles, presenting fewer opportunities for physical

confrontations (Casper et al., 2017). The inherently empathetic nature of girls might further reduce such chances (Carlo et al., 1999).

However, another comprehensive meta-analysis signaled noticeable gender differences concerning victimization. It's worth noting that this particular study didn't differentiate between physical and relational victimization, implying the observed differences might rely on variations in physical victimization (Hosozawa et al., 2021). While the analysis recognized certain countries showcasing pronounced gender disparities and others with negligible differences, the overarching trend suggested that boys are victimized more universally, regardless of geographical boundaries (Hosozawa et al., 2021).

During their primary school years, victimized boys generally manifest heightened externalizing problems, whereas victimized girls lean towards internalizing problems. As they transition from primary to secondary education, internalizing problems as a consequence of victimization in boys tend to diminish, while they accentuate in girls (Gong et al., 2021). However, this isn't indicative of a uniform trajectory from victimization to these symptoms across genders. A recent meta-analysis found no substantial gender or age discrepancies related to internalizing problems, irrespective of the nature of victimization (Christina et al., 2021). This intimates that victimized boys and girls alike grapple with elevated internalizing problems in comparison to their non-victimized peers. A similar parity exists concerning trajectories toward externalizing problems, as discerned in a cross-sectional study with young adolescents (Prino et al., 2019).

This broader perspective suggests that while boys might be more prone to physical victimization, stemming from their intrinsic aggression and externalizing tendencies, it isn't the victimization per se that differentially impacts boys and girls. A parallel can be drawn with internalizing problems, which, though naturally more pronounced in girls, amplify equivalently for both genders due to victimization. These observations resonate with other research conclusions, such as boys displaying augmented aggression and girls showcasing increased depressive symptoms, yet the pathways from victimization to these outcomes remain consistent across genders, as illuminated by a longitudinal study encompassing children and young adolescents (Boivin et al., 2010).

2.7. Healthy context paradox

The term "Healthy Context Paradox" is a recent entrant in the academic lexicon, but the underlying phenomenon it denotes was noticed around a decade ago (Garandeau & Salmivalli 2019). In its essence, the "Healthy Context Paradox" reveals an unintended consequence of some bullying interventions that may initially appear successful. The intriguing and somewhat counterintuitive observation is that students subjected to victimization in classrooms where victimization is rare, due to lower victimization norms, tend to show higher levels of internalizing symptoms than those who endure similar experiences in environments where victimization is more prevalent (Garandeau & Salmivalli 2019). In essence, this paradox spotlights the hidden challenges of

fostering 'healthy' contexts; while reduced levels of victimization are commendable, the few victims in such environments may face amplified psychological distress.

The seeds of the "Healthy Context Paradox" can be traced back to research conducted even before its formal identification. One of the early indicators of this phenomenon was identified in a 2005 study by Nishina & Juvonen. This research collected daily accounts of victimization experiences from students and monitored the affected children's self-perception and feelings of humiliation. What the researchers found was that when victims saw their peers also subjected to harassment, the sting of humiliation and the negative effects of their self-perception were somewhat mitigated. The probable reasoning, as deduced by the authors, was a shared sense of suffering. When maltreatment wasn't an isolated experience but a shared ordeal, victims might have felt less singled out, potentially perceiving their victimization as less of a personal affront and more of a shared adversity (Nishina & Juvonen, 2005). These findings were not yet interpreted in the window of person-group dissimilarity, but indirectly already assumed that the "social misfit" feels worse than those who are not. These findings dovetail with the general strain theory (Agnew, 2001) which accentuates the significant strain caused by maltreatment which is importantly observed as unjust.

Following the initial observations by Nishina & Juvonen in 2005, the academic landscape saw an emergent interest in the interplay between person-group dissimilarity and its repercussions, this time with a focus on bullies rather than their victims (Sentse et al., 2007). Contrary to popular belief, which places emphasis solely on victims, this research brought to light that bullies too are not immune to the challenges of the "Healthy Context Paradox." In classrooms where victimization wasn't the norm (i.e., where there were lower normative levels of victimization), both the victims and the bullies found themselves less preferred by their peers. This suggests a sort of double jeopardy. Not only were the victims marginalized, but the bullies, who in these settings were seen as "social misfits" due to their atypical behavior, were also less favored by their classmates (Sentse et al., 2007).

The following year a similar study with bullies was performed but focused on popularity norms, rather than descriptive classroom norms (Dijkstra et al., 2008). They combined person-group dissimilarity and goal-framing approaches (Lindenberg, 2006) to come to their hypothesis that hinged on the idea that bullying, at its core, often manifests as a strategy for individuals to attain or maintain social status. Therefore, bullying would be effective primarily in environments where the act of bullying aligns with the behaviors of popular or high-status peers. The results confirmed their hypothesis. In classrooms where bullying was associated with popularity (high victimization popularity norms), bullies found more favor among their peers. This was the case even when the general behaviors of the classroom (descriptive classroom norms) were accounted for (Dijkstra et al., 2008). These studies, taken together, paint a nuanced picture of the complex web of relationships and norms within classrooms. They emphasize the significance of understanding not just the act of bullying or victimization in isolation, but also the broader context in which these behaviors occur.

Several more studies came out investigating the person-group dissimilarity model

associated with victims of peer bullying. The study by Huitsing et al., (2012) now focused not on peer-preference but on the well-being of victims. They found that in classrooms with highly centralized victimization (classrooms with a clear few "social misfit" victim in the class, as opposed to centralized chaotic victimization) victims tended to have higher depressive symptoms and lower self-esteem. They theorize that such children perceive themselves as potentially different and hence may place the blame on themselves for being victimized. In the process, they internalize the mistreatment towards themselves (Huitsing et al., 2012). Additionally, the study revealed another interesting result. In classrooms with highly centralized victimization, even non-victims had higher depressive symptoms and lower self-esteem (Huitsing et al., 2012). Perhaps observing other kids being victimized but not being able to help or choosing not to help, they may feel worse for the blight or have a higher sense of helplessness overall (Huitsing et al., 2012).

Further exploration into what's now known as the "healthy context paradox" likely gained momentum following the 2019 review by Garandeau & Salmivalli. While much of the earlier research primarily centered on internalizing problems, it consistently invoked the concept of person-group dissimilarity (Wright et al., 1986). Recent scholarship has begun to probe the unintended negative repercussions that may accompany attempts to reduce victimization through interventions (Lucas-Molina et al., 2022). A particularly significant study involved students participating in an anti-bullying program (Huitsing et al., 2019). The findings from a sample of 4,356 students aged 9-10 from 245 classrooms revealed that while the intervention successfully lowered victimization rates, those who continued to be bullied exhibited worsened depressive symptoms and diminished self-esteem compared to their peers in schools without interventions (Huitsing et al., 2019). The authors compared findings from control schools and schools that implemented bullying interventions that successfully decreased bullying victimization in classrooms. They used self-reported measures of global victimization and did not diversify between types of victimization. There were significant differences in effect sizes for victimization predicting depressive symptoms in intervention schools compared to non-intervention schools: victimization predicted depressive symptoms in intervention schools more strongly. Similarly, the effect size for victimization predicting self-esteem bigger in intervention schools than in non-intervention schools. For social anxiety, the differences were non-significant, although still, the effects were greater in intervention schools (Huitsing et al., 2019).

The healthy context paradox possibly extends beyond the classroom environment. Firstly, it could extend into the school climate, as a study finds that victimized students tend to report more mental health difficulties when they perceive better school climate (Zhu et al., 2022). It could also expand towards being a global phenomenon, as a study by Arnarsson & Bjarnason (2018) that was looking at victimization and victimization outcomes in various countries, found that the impact of bullying on life satisfaction is stronger in countries where bullying is less frequent. Similar findings were recently confirmed in an overview of 25 countries (Agyekum-Hene et al., 2024). In countries with lower victimization rates, the remaining victims are worse off.

2.7.1. Measuring victimization in the healthy context paradox

It could be debated what the best approach to measuring peer victimization is. Starting from the premise that not all types of victimization are equal, it seems important to define victimization types. In the research surrounding victimization, two types are often presented: physical and relational victimization (Casper & Card, 2017). Victimization is also often measured using either self-reported or peer-reported measures, with significant differences between these methods (Oldenburg et al., 2015). Considering that different measures of victimization may yield different results, both should be discussed.

Physical and relational victimization. When it comes to the processes and outcomes of physical and relational victimization, there are several differences. Firstly, in terms of outcomes, there is a view that, regardless of victimization type, victims are more prone to internalizing symptoms (Crick & Bigbee, 1998). Others suggest that relational victimization is more associated with internalizing problems than physical aggression (Gibb & Hanley, 2010). Some authors suggest that physical victimization is more associated with externalizing problems (Prinstein et al., 2001). This seems to draw a more general picture, as a meta-analysis suggests that relational victimization is more associated with internalizing problems, whereas physical victimization is more associated with behavioral problems (Casper & Card, 2017). In the realm of the healthy context paradox, the majority of research did not discern between types of victimization, using a global scale of victimization (Liu et al., 2021; Pan et al., 2021; Huitsing et al., 2019; Laninga-Wijnen et al., 2023c). A study that involved both types of victimization found support for both and their association with externalizing problems (Zhao et al., 2022), but the study investigated student cohorts and not the classroom norms. Arguments could be made that separating types of victimization may be arbitrary, since, in the context of the healthy context paradox, the problem is being a victimized social misfit rather than only victimized. On the other hand, there could be major differences in outcomes depending on whether a student is a social misfit experiencing physical or relational victimization. It could also be partly moderated by gender, as research suggests that boys are more prone to physical victimization, whereas girls are more prone to relational victimization (Crick & Bigbee, 1998). All in all, a review of the literature could suggest that, while in the field of victimization research, physical victimization is more associated with externalizing problems, and relational victimization is more associated with internalizing problems, a case can be made for both. However, current data is very limited when testing the healthy context paradox, which is an advantage and novelty of this research.

Self-reported and peer-reported measures of victimization. Another difference that occurs is between self and peer reports of victimization. Researchers argue that both types of reports are important to paint a more complete picture (Bouman et al., 2012), although both have advantages and disadvantages. One advantage of peer-reported measures is that they are combined from more than one reporter which increases their reliability (Baly et al., 2014), whereas a disadvantage is that peers may report victims

based on their status in the class, not necessarily due to victimization (Fox & Boulton., 2005). The advantage of self-report measures is that they may give a clearer insight into internalizing problems and the subjective reality of the student which could not be captured with peer reports, although this also could lead to social desirability bias or memory or perception errors (Košir et al., 2020).

Peer reports of bullying are more associated with feelings of self-acceptance than self-reports of bullying (Bouman et al., 2012). In the field of the healthy context paradox, this could be an important indicator that peer-reported measures may be better suited to describe the social misfit. An advantage of peer-reported measures is their links with popularity measures (De Bruyn et al., 2010), which could better allow for noticing discrepancies within the classroom. On the other hand, self-reports of victimization are more associated with internalizing problems, such as emotional symptoms (Hawker & Boulton, 2000). Additionally, relational victimization may be more private and recognized through self-report, whereas physical victimization is more open and visible to everyone and could be captured equally well through peer-reported nominations (Sijtsema et al., 2013). Overall, this suggests a few potential considerations. One is that self-reported measures should be more associated with the emotional symptoms of the students, whereas peer-reported measures could be more associated with behavioral problems. In the field of the healthy context paradox, findings have not been consistent.

Some findings indicate the effects of the healthy context paradox on self-reported measures of victimization and self-reported outcomes (Huitsing et al., 2019). Another study also found effects on internalizing symptoms for self-reported data but not for peer-reported measures of victimization (Xiong et al., 2023). In contrast to this finding, another study found that discrepancies in classroom victimization norms based on peer-reported data were associated with internalizing symptoms (Pan et al., 2021). For externalizing symptoms predicted by discrepancies from classroom victimization norms, there is only one cross-sectional example: a study that used only self-reported measures and found significant results (Liu et al., 2021). Overall, an inconsistent picture emerges. Although current findings lean toward stronger effects for self-reported measures in the field of the healthy context paradox, suggesting that it may be the sense of being a social misfit rather than being one, some research also finds support for peer reports of victimization. In conclusion, more research discerning between types of victimization and types of victimization reports is needed, which is another strength of this study.

2.7.2. Healthy context paradox and internalizing problems

Before delving into the associations between the healthy context paradox and internalizing problems, firstly grounds must be laid for the association between victimization and internalizing problems and the potential mechanisms at play.

Victimization and internalizing problems have a bidirectional relationship. Victimized students show impaired social skills, which may hinder their ability to cultivate

friendships, pushing them toward finding maladaptive relationships (Vaillancourt et al., 2013). Displaying behaviors such as social withdrawal and fearfulness, coupled with body language suggestive of vulnerability, these individuals inadvertently attract bullies seeking an easily targetable victim leading them into a repeated victimization cycle (Reijntjes et al., 2010). This reciprocal relationship has been solidly underscored by a recent meta-analysis: a correlation of r = .18 from victimization to internalizing problems, and r = .19 from internalizing problems to victimization (Christina et al., 2021). Victims with predominant internal reactions are typically categorized as passive victims, contrasting them with their more provocative counterparts (Reijntjes et al., 2010).

Victimized students often exhibit a heightened prevalence of emotional symptoms, as outlined by Goodman's "Emotional Symptoms Scale" (Goodman, 1997). This scale captures a range of psychological symptoms: recurrent complaints of physical ailments without obvious causes, a persistent sense of worry, tendencies to feel despondent, unease in novel situations, and unwarranted fears. Such symptoms often signify deeper emotional distress.

Victimization is also associated with loneliness. Loneliness is defined as a distressing sense of unwanted social isolation that arises in response to perceived deficiencies in relationships, loneliness stands apart from mere solitude (Perlman & Peplau, 1981). Victimized students frequently contend with intensified feelings of loneliness (Storch & Masia-Warner, 2004). Notably, much of the existing research does not differentiate loneliness from other internalizing problems in the context of victimization. However, a meta-analysis has pointed out that the correlation between victimization and loneliness is stronger than with anxiety or depressive symptoms (Wu et al., 2015). A recent meta-analysis suggests there is a high possibility of causality in the association between victimization and loneliness (Moore et al., 2017). Furthermore, a bidirectional association can be noted as longitudinal studies have shown that lonely youths are more vulnerable to both victimization and depression (Acquah et al., 2016).

In the realm of direct findings between healthy context paradox and internalizing symptoms, recent findings suggest a notable association. A longitudinal study exploring bidirectional associations between victimization and internalizing problems revealed that classroom-level victimization moderates the prospective impact of victimization on internalizing symptoms, rather than internalizing problems influencing victimization (Laninga-Wijnen et al., 2023c). The study included 3,470 students and relied on self-reported measures of victimization, without distinguishing between types of victimization. Notably, this research was the first to examine the reverse effects, specifically whether in classrooms with lower norms of victimization, internalizing problems become more evident and lead to increased victimization. This hypothesis was not supported, confirming the effects of the healthy context paradox on internalizing problems (in this case depressive symptoms, anxiety, and self-esteem) because youth are victimized in environments with lower norms of victimization (Laninga-Wijnen et al., 2023c).

Another longitudinal study delving into the healthy context paradox used a sample

of 2643 third and fourth-graders from 51 classrooms (Pan et al., 2021). They found that peer-reported victimized students in classrooms with lower victimization norms are more prone to depressive symptoms, lower social self-concept, and lower number of friends. The study only used peer-reported measures of victimization, did not use self-reported measures of victimization, and did not diversify between different types of victimization.

Not every study finds such convincing evidence for the healthy context paradox, especially when contrasting self-reported and peer-reported data. A recent exploration involving 2613 Chinese middle school students aged around 13 years old from 47 classrooms showcased this divergence. The authors used moderation analysis including an interaction term between individual victimization and classroom average level of victimization. Based on self-reported data, students who were victimized in classrooms characterized by lower victimization norms experienced elevated depressive symptoms and decreased self-esteem in comparison to their counterparts in classrooms with more prevalent victimization. However, these findings weren't mirrored in the peer-reported victimization data (Xiong et al., 2023). The authors also did not diversify between types of victimization, using a merged variable including physical and relational victimization questions. Additionally, recent findings presented at the European Conference of Developmental Psychology with 5661 students found no direct effects of "healthiness of the context" on depressive symptoms, social anxiety, self-worth, or feelings of comfort. On the other hand, they did find that there is an effect when looking through the prism of mediation via feelings of isolation and lack of friends (Laninga-Wijnen et al., 2023b).

There is considerable evidence on the effects of healthy context paradox in internalizing problems, much less so for loneliness. No prior research was found that would show if the victimized "Social misfits" feel lonelier than their counterparts. However, an argument could be made to look for this association. Firstly, when looking at mechanisms through which the healthy context paradox could be working, one of the ideas, raised by Zhu et al., (2022) is looking through the prism of social comparison theory (Festinger, 1954). The persistent victimized social misfits, observing a healthy classroom context, might perceive themselves unfavorably. They may believe that they are more incongruent with their classmates, which may invoke feelings of loneliness, due to social comparison (Zhu et al., 2022). Such "upward" social comparisons could lead these victims to blame themselves for their predicament, further eroding their self-esteem because they feel incapable of escaping the cycle of bullying (Huitsing et al., 2019).

Another perspective revolves around peer perceptions. Students might avoid associating with victims to preserve their social standing or sidestep potential negative interactions with these victims (Huitsing et al., 2019). This idea aligns with the person-group dissimilarity model (Wright et al., 1986) which posits that social misfits are more likely to be rejected, and that there's a known link between rejection and loneliness (Woodhouse et al., 2012).

Through the prism of evolution, there is also a rationale for victimized social misfits

to feel higher internalizing symptoms. Evolutionarily, it is preferable to avoid persisting in unproductive behaviors. If efforts to prevent victimization seem futile, then instead of fighting maltreatment that cannot be prevented, energy preservation could be preferred (Peterson et al, 2013). Consequently, students who perceive bullying as inescapable might instinctively opt for energy conservation. This approach can manifest as depressive symptoms, where students perceive their plight as predetermined and view forthcoming challenges pessimistically (Rose & Monda-Amaya, 2012). This idea is partly supported by findings that suggest that in the situation of victimization, perceived threat and perceived control mediate the relationship between victimization and emotional problems (Hunter et al., 2010). If students view a threat as insurmountable or feel incapable of managing a situation, self-preservation by accepting their predicament might seem optimal. The sense that the problem is insurmountable for victimized social misfits may be elevated because of their social standing, potentially leading to emotional symptoms and loneliness.

Another viewpoint could be added. If we look at the "healthy context paradox" through the lens of optimal distinctiveness (Brewer, 2012) we can speculate that it is difficult to feel optimally distinct, when you are the only one victimized. Recognizing the tendency for people to choose minority groups which often better accommodate the optimal balance between assimilation and differentiation (Leonardelli et al., 2010) if the classroom does not provide the opportunity to assimilate with the minority because there are none, the remaining differentiation is far from optimal (Kuo & Yang., 2017). Viewing from this perspective, we can postulate that in classes with higher norms of victimization, children can assimilate themselves with other victims, whereas in classes with low victimization norms, this assimilation becomes unachievable.

Pan et al. (2021) expand on the ideas of why experiencing victimization as a "social misfit" might be linked with heightened internalizing problems: First is based on social relationships: In classrooms where victimization is a rarity, those who are victimized might face amplified rejection. The potential social cost of befriending these individuals could be substantial, which is evidenced by the fewer friendship nominations these victims typically receive (Deptula & Cohen., 2004). Another explanation includes potentially impacted self-concept: For students who are isolated in their experiences of victimization, the absence of peers with similar experiences can exacerbate feelings of loneliness. Confronted with their unique plight, they may grapple with understanding the cause, often leading them towards detrimental self-perceptions. This introspective search can significantly harm their self-concept, as they may come to believe there's something intrinsically wrong with them that perpetuates their victimization (Pan et al., 2021).

Despite the divergent findings between self-reported and peer-reported victimization, evidence for both reporters was discovered in previous literature (Pan et al., 2021; Huitsing et al., 2019). Additionally, accounting for the fact that previous literature measuring the healthy context paradox and internalizing problems used depressive symptoms (associated with emotional symptoms), no research was found to measure loneliness directly, however, theoretical insights suggest that being a victimized

social misfit should invoke feelings of loneliness. This makes it a novelty of this study. Regardless, considering the correlated nature of the variables and their legitimacy to stand under the umbrella term of internalizing problems, loneliness, and emotional symptoms will be considered under the same hypothesis. Additionally, considering that previous literature gives no significant ground to discriminate based on types of victimization, a hypothesis is raised based on these findings on the healthy context paradox:

For both peer and self-reports of victimization and both physical and relational victimization, students in classrooms with lower descriptive victimization norms will show higher increases in internalizing symptoms (expressed through loneliness and emotional symptoms) than students in classrooms with higher descriptive victimization norms.

2.7.3. Healthy context paradox and externalizing problems

Before delving into the association between the healthy context paradox and externalizing symptoms, the groundwork for the association between victimization and externalizing symptoms and mechanisms at play should be laid. Victims are generally more prone to disruptiveness (Kaynak et al., 2015) which is often defined as aggressive, opposing, and hyperactive behavior, particularly within the classroom setting (Stormshak et al., 2000), delinquent behavior (Crawford & Manassis, 2011) characterized by intentional school skipping, theft, and property damage (Bendixed & Olweus., 1999), and conduct problems that include aggressive actions, fighting, lying, cheating, and opposing others (Olweus, 2013; Kim et al., 2006).

This dynamic is complex, and mechanisms may be different. Without emotional tools to regulate their frustration (Kaynak et al., 2015) victimized social misfits may indulge in disruptiveness. Through the prism of the social information processing model, victimized children faced unjust maltreatment countless times, fairly creating a schema of a classroom as a threatening place. Through their biased social information processing these children may erroneously interpret even neutral or unintentional acts as targeted aggressions (Burgess et al., 2006). It is also possible that the association is the other way around, that disruptive adolescents are rejected by their peers, which seems to be the case as suggested by previous research, that students tend to reject those peers that exhibit externalizing problems (Gasser et al., 2017). It should also be noted that those students who exhibit externalizing problems prefer similar peers and vice-versa (Fortuin et al., 2015) this could imply that students in classrooms with lower externalizing problem norms by exhibiting disruptiveness could become rejected victimized social misfits.

Whereas there is ample support for the idea that students who do not fit in with the classroom descriptive norms are more likely to be rejected (Schoop-Kasteler et al., 2023; De Swart et al., 2023) there is hardly any research exploring potential mechanisms of why the social misfits would turn to externalizing problems. When talking about the direct associations between the healthy context paradox and externalizing

symptoms, it should be noted that the association with internalizing problems has garnered significantly more attention than its association with externalizing behaviors. Notably, only one study out of China have delved into the interplay between classroom victimization norms and aggressive reactions stemming from victimization.

Liu et al. (2021) took the lead in this area with a study involving cross-sectional data of 1764 middle schoolers aged around 14 from 47 classrooms. They used self-reported global measures of victimization and did not discern between types of victimization. For externalizing problems, they viewed self-reports of a merged variable of aggressiveness and rule breaking. The authors discovered that students victimized in settings where victimization was less of a norm were more inclined towards externalizing behaviors, such as defying rules and engaging in physical altercations. They used moderation analysis with an interaction term between victimization and descriptive classroom norms of victimization (calculated as the average reported level of victimization within class) and found that the interaction term was significant suggesting that a healthier context may not be healthy for the remaining victims. A limitation of this study is its lack of distinction between physical and relational victimization, as well as its use of cross-sectional data.

A subsequent study shifted the focus from the broader classroom environment to the more intimate realm of friend cliques. Zhao et al. (2022) observed that discrepancies from the victimization norms within these cliques could predict escalated aggressive behavior, even up to two years later. They used a sample of 691 middle school students aged around 12 from 153 friend cliques. An advantage of this research was its differentiation between relational and physical victimization and the use of peer and self-reports of victimization. The study uncovered significant correlations for both physical and relational victimization, however, these findings were restricted to self-reported instances of victimization and didn't extend to peer-reported cases (Zhao et al., 2022).

When trying to interpret the reasons for the association between being a victimized social misfit and externalizing problems several ideas can be discussed. Firstly, we can look at past findings from the perspective of coping theory (Lazarus, 1993). As children perceive themselves as segregated in their plight victimization, they may find it too difficult to solve this issue. As such, the remaining option becomes coping with their emotional turmoil, they may exhibit various behavioral maladjustments as ways to vent their inner emotions.

Additionally, it could be viewed that a fitting strategy to avoid bullying and rejection would be to avoid school overall. Studies suggest that rejected students, which is often the case with social misfits, tend to avoid school (Havik et al., 2015). When victimized students avoid the classroom environment to dodge potential maltreatment by their peers, they often end up neither at school nor at home (Juvonen & Graham, 2014). Outside and in the absence of prosocial engagements, these youths wander the streets or form bonds with other truant peers bolstering each other's opportunities for delinquent behaviors (Rocque et al., 2017; Hanish & Guerra, 2002).

The General Strain Theory (Agnew, 2001) provides a perspective into this dynamic as well suggesting that children subjected to unjust treatment might retaliate without necessarily addressing the root of their distress. There lies a risk that such victimized children could become inherently more aggressive, experiencing augmented conduct problems. Their distorted perception, in line with the social information processing model (Burgess et al., 2006), might lead them to misconstrue neutral situations as threats, eliciting aggressive reactions. This misinterpretation can trigger a self-fulfilling prophecy, where their aggressive demeanor draws further aggression and further rejection.

Another idea supported by research is the mediating role of hostile attribution. Research by Liu et al., 2021 found that children, when unjustly victimized in a setting where such behavior is rare, tend to view such mistreatments through a lens of malevolence. Consequently, they might be predisposed to respond aggressively, as opposed to merely internalizing these adverse experiences (Liu et al., 2021).

With a lack of research directly delving into this relationship, some insights have to be drawn from general research on person-group dissimilarity and victimization research. In the realm of person-group dissimilarity, findings indicate that adolescents who are rejected by their peers tend to lean toward externalizing problems (Ladd., 2006). Authors argue that rejected peers gain a certain rejected status which is internalized by them and their peers, and to cope with that status and gain their way into the social structure adolescents sometimes turn to destructive behaviors (Ladd., 2006).

Despite the null findings for peer-reported victimization in cliques, there is not enough support to discredit peer-nomination-based reports. Considering the significant effects of classroom descriptive norms of victimization on potential increases in externalizing problems, a hypothesis is raised:

For both peer and self-reports of victimization and both physical and relational victimization, students in classrooms with lower descriptive victimization norms will show higher increases in externalizing symptoms (expressed through peer-reported disruptiveness, physical aggression, and self-reported delinquent behavior and conduct problems) than students in classrooms with higher descriptive victimization norms.

2.8. Context of Covid-19

Before delving into the methodological considerations of the present study, it is important to contextualize the potential ramifications of the Covid-19 pandemic on students' well-being. Given that the data for this study was garnered during the 2021 academic year, the overarching environment shaped by Covid-19 might bear significance. A study conducted in Finland observed a decline in victimization during lockdown periods, along with a diminishing disparity in school adjustment between victimized and non-victimized students (Repo et al., 2022). This suggests a potential attenuation in the long-term impacts of victimization, particularly as students have limited physical interactions in school settings. Corresponding observations were made in

Canada, indicating a decline in victimization in the post-lockdown era (Vaillancourt et al., 2021). However, there is a prevailing hypothesis suggesting a potential transference of victimization from in-person settings to cyber realms during the lockdown (Buzaitytė-Kašalynienė et al., 2021). Within the framework of the healthy-context paradox, this transition could amplify adverse outcomes for victims.

Additionally, there are other intricacies to be addressed. A Lithuanian study elucidated that students' sedentary lifestyles coupled with parental distress encountered during the pandemic were predictive of diminished student well-being and an uptick in somatic complaints (Breidokienė et al., 2021). This might indicate an overall surge in students' internalizing symptoms during the Covid-19 era. Given the general amplification of internalizing symptoms among students (Crescentini et al., 2020), the specific effects attributable to victimization could be obscured. If both victimized and non-victimized students manifest heightened internalizing symptoms during the pandemic, the differential impact of victimization might be less discernible.

In terms of victimization, the pandemic of Covid-19 also had its role in changes in victimization. Due to the lockdown, some traditional victimization transferred to cyberbullying, which showed an increase in prevalence (Barlett et al., 2021). Although a meta-analysis suggests that global levels of cyber-bullying could have decreased during the pandemic, because of a much more supervised use of social media (Huang et al., 2023b). On the other hand, while the prevalence could have decreased, the negative outcomes could have been exacerbated (Eden et al., 2023).

In summation, the implications of the Covid-19 pandemic and associated lockdowns on the study's outcomes remain uncertain. While some research suggests attenuated victimization, this could potentiate the manifestations of the healthy context paradox increasing the risk of being a social misfit. Conversely, the pervasive rise in internalizing symptoms among students could mask such effects.

2.9. Group actor-partner interdependence model

The study of groups and the relationships between individuals and groups presents significant methodological challenges and is often constrained by limitations (Marsh et al., 2012). In older literature especially, a common problem was using individual students' perceptions as representations of classroom-level variables (Marsh et al., 2012). A practical concern arises when considering each classroom as a distinct entity; the number of required participants is effectively the number of participants in each group squared. In group studies, since a single participant often represents the group, this suggests a need for about 50 classrooms to adequately identify potential group-level differences (Marsh et al., 2012). Another challenge in group research is the interaction between individuals within the group and the group as a collective. Given the complex dynamics in larger groups, this poses a significant challenge. Three types of such interactions have been proposed: group composition as a consequence, group composition as a context, and group composition as a cause (Levine & Moreland, 2008). "Composition as a consequence" refers to the idea that every individual

contributes dynamics to the group and the sum of these contributions defines group dynamics. Yet, since each contribution interacts with others, this dynamic becomes intricate to quantify. "Composition as a context" relates to how an individual perceives the group, and "composition as a cause" describes how the group dynamic influences the individual—essentially the reverse of "composition as a consequence" (Levine & Moreland, 2008).

Finally, we turn our attention to the methodological approach employed in this study – the Group actor-partner interdependence model (G-APIM) (Kenny & Garcia, 2012). This model primarily centers on "composition as a context" and "composition as a cause" but does not address "composition as a consequence". G-APIM expands on the actor-partner interdependence model (APIM), which focuses on dyadic data analysis, examining the interrelationships between an individual and a counterpart (be it a parent, friend, spouse, etc.). Within the APIM framework, the dyad is regarded as a singular participant, with correlations being drawn between one individual's variables and those of the other. In a parallel manner, G-APIM is structured, with each participant's analysis encompassing group-level variables. In this paradigm, the group composition variable acts as the predictor, allowing for an assessment of whether group composition influences behavior and its outcomes of an individual (Garcia et al., 2015). Initially, the model encompassed only dichotomous variables like gender, ethnicity, or opinion direction (Kenny & Garcia, 2012), but subsequent model iterations have accommodated both categorical and continuous variables (Garcia et al., 2015). Though relatively nascent, applications of this model have been rigorously explored and expanded upon (Gommans et al., 2017; Kaufman et al., 2022; Bonito, 2022).

The G-APIM approach mitigates many of the challenges previously encountered in measuring the relationships between groups and individuals. The first, quite intuitive advantage of G-APIM is its methodology for gauging the group composition variable by omitting the focal individual. Essentially, the group with which an individual interacts is conceptualized as a unit minus that individual. To illustrate, in a group comprised of 1 boy and 5 girls, the boy perceives his group as being solely girls, whereas for the girls, the group encompasses both girls and a boy. Consequently, when deriving the group composition variable for an individual, G-APIM strictly accounts for the attributes of the other group members alone. This group composition variable accounts for potential effects of the group, or the group climate (Garcia et al., 2015). In our case it accounts for the average levels of victimization amongst other classmates of our focal individual, therefore it looks at how the victimization climate itself may be associated with various individual outcomes. In G-APIM every individual has a unique classroom environment, they are surrounded by different classmates than they are, therefore the effect of the classroom environment is tested using the model (Bonito, 2022).

Another merit of the G-APIM model is its ability to not only quantify an individual's similarity to the group but also to gauge the group context variable by factoring in the group's homogeneity (how alike members are to one another concerning a specific trait). This facet is particularly pivotal in representing group composition, especially for continuous variables, which aren't simply captured by measuring how an

individual differs from the rest of the group (Garcia et al., 2015). The homogeneity of the group captures the diversity of the group the individual is in and also corresponds to the group climate and how similar all the others in the group are. If everyone else in the group is similar in terms of victimization, this could paint a very different group climate than in class where victimization is diverse (Bonito, 2022). Therefore, direct effects of classroom homogeneity are tested on the outcome variable (Kaufman et al., 2022).

G-APIM is gaining traction in psychological research as a tool to address group composition, as underscored by Theodorou et al. (2021). Findings that most align with this study come from Kaufman et al. (2022). They investigated the social misfit hypothesis as a predictor of victimization, an angle somewhat divergent from this study's focus. Employing G-APIM, the research revealed that pronounced deviations from classroom norms—like fewer friendships, limited social media connections, and lower disruptive behaviors—were predictors of victimization (Kaufman et al., 2022). Intriguingly, while externalizing issues like disruptiveness are often correlated with heightened victimization (Ostrov et al., 2019), this particular study found the opposite when measuring discrepancies in disruptiveness levels. Such findings underscore a critical mechanism that validates the social-misfit viewpoint. In classrooms where disruptiveness is prevalent, not conforming to the aggressive demeanor might elevate the likelihood of victimization.

G-APIM's methodology for examining the "healthy context paradox" strengthens the research design. It facilitates testing both the descriptive group composition concerning victimization and the group's homogeneity (Garcia et al., 2015). This strategy provides a deeper insight into the paradox, probing whether, in addition to being a "social misfit" through victimization, the relational dynamics among other children influence this association.

2.10. Summary of the review

During early adolescence, children undergo significant transitions. From a life predominantly dictated by adult influence, they shift towards self-driven and peer-oriented environments, attaching heightened importance to friendships (Laursen & Hartl, 2013). This period witnesses their evolution from impulsive physical behaviors to more organized and relationally driven interactions. Such developmental shifts also manifest in how victimization occurs, characterized by a decline in physical victimization and an uptick in relational forms (Underwood et al., 2009). As adolescents grapple with an intensified need for belonging, not all manage to seamlessly fit in, leading some to stand out as 'misfits.' In situations where students find themselves misaligned with prevalent group or classroom norms, they risk becoming outliers, often resulting in their marginalization (Wright et al., 1986). It's noteworthy that no specific traits assure universal acceptance. Instead, group dynamics largely dictate the desirable traits, making adolescence a challenging phase (Rubin et al., 2008). The downside of standing out, rooted in dissimilarity, extends beyond mere peer rejection; it often translates

into negative experiences, including peer victimization.

Peer victimization has a cascading effect on the well-being of students and is also reciprocal with both internalizing and externalizing problems. Victimization can be different, some are physically victimized by being pushed or hit, and others are relationally victimized by being teased or unaccepted into groups (Turner et al., 2006). Regardless of various successful interventions (Laninga-Wijnen et al., 2021) victimization is still a big problem amongst adolescences globally with over 30% of children who have been frequently victimized by peers (Hosozawa et al. 2021).

Victimization is multifaceted and doesn't occur in a vacuum. It's shaped by a combination of individual and group dynamics. Factors influencing victimization range from group norms around victimization, popularity, and defending victims (Laninga-Wijnen et al., 2021), to individual traits like physical vulnerability, internalized symptoms (Hodges & Perry, 1999), inadequate problem-solving capabilities, social skills deficits (Cook et al., 2010), disruptive tendencies, emotional reactivity (Reijntjes et al, 2011), or even diminished social or academic standing (Wynne & Joo, 2011). Children victimized by peers face almost certain adverse outcomes unless fortified by a robust psychological framework for managing emotions (Kaynak et al., 2015) or backed by substantial social support (Isaacs et al., 2008). These negative effects typically manifest as internalizing or externalizing problems.

Victimization's influence on internalizing problems spans a wide spectrum, including loneliness, school anxiety, depressive symptoms, generalized anxiety, diminished self-esteem, suicidal ideation and behaviors, illicit drug use, and impacts on self-concept (Reijntjes et al., 2010). Unfortunately, these ramifications tend to persist long after the victimization has ceased (Moore et al., 2017). As victims internalize their experiences, some begin to blame themselves, rationalizing that they somehow deserve such mistreatment. This internalized view warps their self-concept, aligning it with the derogatory treatment they've endured (Huitsing et al., 2012), often culminating in eroded self-esteem and elevated depressive symptoms (Garandeau & Salmivalli, 2019). These victims employ various coping mechanisms in their adversarial environments (Rose & Monda-Amaya, 2012).

Peer victimization leads many to adopt more passive strategies, escalating to delinquency (Walters, 2021) and even physical aggression (Sullivan et al., 2006). In attempts to evade the hostile school environment, truancy becomes an escape. Yet, this often places them in company with fellow truants, pushing them further into delinquency to alleviate their emotional distress (Rocque et al., 2017; Hanish & Guerra, 2002). Upon returning to school, these students are ill-prepared academically and, coupled with punitive actions from educators, find themselves in a negative feedback loop. Reacting to perceived injustices, they may become disruptive in class (Juvonen & Graham, 2014; Kaynak et al., 2015). Struggling with emotional regulation or attempting to assert their position, they may lash out at peers, mirroring the very behaviors of those who victimized them. This inability to navigate social relationships can lead to further conduct issues and aggressiveness (Kim et al., 2006). Due to their history, these individuals often interpret situations as more threatening than they are, making

them prone to unnecessary aggression and, ironically, increasing their susceptibility to future victimization (Burgess et al., 2006).

After successful interventions led to a decrease in victimization, an unintended negative side effect emerged, known as the "healthy context paradox." This paradox suggests that while anti-bullying interventions are overall beneficial in reducing bullying and victimization rates, they can inadvertently harm the remaining victims in settings where bullying becomes less prevalent. In such contexts, the few remaining victims become even more conspicuous as "social misfits" when juxtaposed against their non-victimized peers. This heightened dissimilarity is linked with worse social and emotional outcomes for these victims compared to those in contexts with more prevalent bullying (Garandeau & Salmivalli, 2019).

Several mechanisms underlie this phenomenon. In low-bullying environments, victims often face greater rejection, enjoy lower social status, and struggle to form friendships. Associating with someone perceived as an "outlier" becomes a risk. Additionally, these victims are more inclined to blame themselves for their plight when they perceive that few share their experiences, leading to damage to their self-concept (Pan et al., 2021). The healthy context paradox is well-documented in various studies, especially regarding internalizing problems like anxiety and depression (Garandeau & Salmivalli, 2019). However, there's a gap in research when it comes to externalizing problems. Some support does exist for this aspect (Liu et al., 2021), suggesting that the nature of victimization, such as physical aggression, may cause victims to exhibit aggressive reactions (Casper et al., 2017).

Measuring peer victimization involves distinguishing between physical and relational forms, as each is linked to different psychological outcomes: physical victimization often correlates with externalizing behaviors, while relational victimization is more associated with internalizing problems (Casper & Card, 2017). Victimization is typically assessed through self-reported or peer-reported methods, each with strengths and weaknesses. Self-reports may capture internalizing symptoms better, reflecting the victim's subjective experience, but are prone to biases, whereas peer-reports offer a more reliable, objective view of victimization within social contexts (Bouman et al., 2012; Baly et al., 2014). These differences are crucial when studying phenomena like the "healthy context paradox," where inconsistencies in research suggest that the sense of being a social misfit, rather than the reality, might drive internalizing symptoms (Huitsing et al., 2019; Pan et al., 2021). Therefore, further research that carefully distinguishes between types of victimization and reporting methods is essential to gain clearer insights into these dynamics.

For our study, we employ the Group Actor-Partner Interdependence Model (G-APIM). This model offers a robust framework for simultaneously assessing the effects of individual victimization and classroom norms on internalizing and externalizing outcomes (Kenny & Garcia, 2012). By factoring out the individual when measuring classroom norms, G-APIM sidesteps issues like using personal perceptions as stand-ins for group dynamics (Garcia et al., 2015). Moreover, it facilitates the examination of both the deviation from classroom norms and the uniformity in victimization. It's

a fitting approach to probe the complexities of the healthy context paradox, offering a comprehensive methodology for thorough exploration (Kenny & Garcia, 2012).

2.11. Research Hypotheses

Students who are more discrepant from descriptive classroom norms in physical and relational victimization will experience higher levels of externalizing problems and internalizing problems later in the year:

- Higher discrepancy from peer-reported physical victimization classroom norms and higher classroom homogeneity is associated with increases in peer-reported disruptiveness and physical aggression later in the year.
- Higher discrepancy from peer-reported physical victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported emotional symptoms and loneliness later in the year.
- Higher discrepancy from peer-reported relational victimization classroom norms and higher classroom homogeneity is associated with increases in peer-reported disruptiveness and physical aggression later in the year.
- Higher discrepancy from peer-reported relational victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported emotional symptoms and loneliness later in the year.
- Higher discrepancy from self-reported physical victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported conduct problems and delinquent behavior later in the year.
- Higher discrepancy from self-reported physical victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported emotional symptoms and loneliness later in the year.
- Higher discrepancy from self-reported relational victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported conduct problems and delinquent behavior later in the year.
- Higher discrepancy from self-reported relational victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported emotional symptoms and loneliness later in the year.

3. RESEARCH METHODS

3.1. Participants

The study sample included a total of 706 participants aged 9 to 14 years old (*M*=11.8, *SD*=1.131). Full details of the sample are provided in Table 1. The total sample used in the study comprised 367 boys and 339 girls from Lithuania (n=541) and the USA (n=165). The students spanned grades 4 (85 boys, 80 girls, *SD*age=0.445), 5 (166 boys, 137 girls, *SD*age=0.392), 6 (47 boys, 41 girls, *SD*age=0.415), and 7 (71 boys, 79 girls, *SD*age=0.444). Participants were distributed across 39 classrooms: 10 fourth-grade (7 in Lithuania, 3 in the USA), 16 fifth-grade (9 in Lithuania, 7 in the USA), 5 sixth-grade (all from Lithuania), and 8 seventh-grade (all from Lithuania) classrooms were included in the sample.

In Lithuania, the communal sample consisted of 541 students (259 girls, 282 boys) enrolled across all seven public middle schools from a single Lithuanian town of Utena. It consisted of 115 fourth graders (*M*age=9.81, *SD*age=0.40), 188 fifth graders (*M*age=10.84, *SD*age=0.412), 88 sixth graders (*M*age=11.86, *SD*age=0.41), and 150 seventh graders (*M*age=12.76, *SD*age=0.44). Most were ethnic Lithuanians living with both biological parents (71.8%). Other family structures included blended families (12.2%), single-parent homes (15.1%), and guardians/grandparents (1%). Most had at least one sibling (83%) and 9.9% received free meals at school.

In the USA, 165 students (80 girls, 85 boys) were recruited from a South Florida public school whose ethnicity and income matched the state's school-age population. The American subsample included 50 fourth graders (*M*age=9.74, *SD*age=0.53) and 115 fifth graders (*M*age=10.68, *SD*age=0.34). School records indicated the sample was 40% European-American, 27.3% Hispanic-American, 20% African-American, 4.2% Asian-American, and 8.5% mixed/other backgrounds.

3.2. Procedure

This study uses data that was collected during the project "Navigating through the secondary school: The role of friends and parents (NAVIGATE)" (Project No. 09.3.3-LMT-K-712-17-0009), conducted from 2020 to 2023. This project was funded by grants from European Social Fund (project No 09.3.3-LMT-K-712-17-0009) under a grant agreement with the Research Council of Lithuania (LMTLT). The project was under the leadership of Professor Brett Laursen.

The research team included Prof. Dr. Rita Žukauskienė, Prof. Dr. Goda Kaniušonytė, Dr. Aistė Bakaitytė, Dr. Audra Balundė, Dainora Šakinytė, Gintautas Katulis, and was supervised by Prof. Dr. Rita Žukauskienė and Prof. Dr. Brett Laursen. As part of the research team, I was responsible for data collection, I included additional measures into the questionnaire, helped gather participants, did workshops for teachers, presented findings to schools and wrote research articles.

The NAVIGATE project collected data across three time points during the school

year - late September/early October, early February, and late April. Due to COVID-19 restrictions, only pilot data was collected during the academic year 2020-2021. During the academic year 2021-2022 data was collected from all 4th-7th grade students and during the academic year 2022-2023 data was collected from all 5th-8th grade students from the Lithuanian town of Utena. This city was selected for its representative sample with socioeconomic diversity and ethnic homogeneity. While data was gathered over three years, some collections were canceled due to pandemic quarantines. The current study utilizes data from September 2021 and February 2022.

Additionally, the project NAVIGATE partnered with the Florida Atlantic University project team, led by Professor Brett Laursen, to perform parallel research in US primary and middle schools in Florida. The project was funded by the U.S. National Institute of Child Health and Human Development (HD096457). While classroom differences during middle school limited comparability, shared data from US primary schools was included in a combined international sample. Primary school students from the USA included 4th and 5th grade students. Primary school is considered up to 5th grade in the USA, whereas it is considered up to 4th grade in Lithuania. The US data was collected concurrently with Lithuanian data and was integrated into the joint dataset.

Table 1. *Demographic statistics of study participants.*

		N	Percent
	Merged sample		
Gender	Boys	369	52.3%
	Girls	337	47.7%
Grade	4th	165	23.4%
	5th	303	42.9%
	6th	88	12.5%
	7th	150	21.2%
	Lithuania		
Gender	Boys	282	52.1%
	Girls	259	47.9%
Grade	4th	115	21.3%
	5th	188	34.8%
	6th	88	16.3%
	7th	150	27.7%
Household composition	Both parents	367	67.8%
	Single parent with stepmother or stepfather	62	11.4%
	Single parent	77	14.2%
	Guardians/ grandparents	5	0.9%
School meal assistance	Does not receive	448	82.8%
	Receives free meals	49	9.1%
	Did not reply	45	8.1%

USA			
Gender	Boys	87	30.3%
	Girls	78	69.7%
Grade	4th	50	52.7%
	5th	115	47.3%
Ethnicity	European-American	66	40%
	Hispanic-American	45	27.3%
	African-American	33	20%
	Asian-American	7	4.2%
	Mixed/other backgrounds.	14	8.5%

Note. N=706.

Combining datasets from different countries adds value to the generalizability of the findings since they replicate across different datasets. To elucidate universal group processes around victimization, merging international data can provide a more robust test if the results hold up in a combined sample. Strengthened by the idea that globally, group processes are often more similar than different (Hanel et al., 2019) it could be stated that merging the datasets is a viable option to confirm the replicability of the findings. On the other hand, valid concerns could be raised about data compatibility. However, while victimization prevalence often varies cross-culturally (Due et al., 2005), the dynamics, outcomes, and consequences of victimization appear more consistent (Gini & Pozzoli, 2009). To account for potential cross-national differences in our variables of interest, we ran a multigroup analysis which revealed little differences between significant paths between countries. The full findings of multiple group analysis are discussed in the results section. This suggests that the hypothesized processes operated similarly regardless of national origin, bolstering the validity of analyzing the integrated data. Integrating international datasets has been applied in prior research to probe universal effects in diverse samples (Leggett-James et al., 2023). Moving forward, further developing this approach can continue revealing cross-cultural consistencies in group processes related to victimization and other domains. Therefore, the inclusion of cross-cultural participants can be considered a strength of the research.

Data from the Lithuanian sample was collected by inviting all 4th-7th graders (45 classrooms, 29 of which had participation rates above 60%) in a communal Lithuanian town of Utena to participate in the study, contingent on written parental consent and student assent. Trained personnel administered questionnaires via computer tablets in a quiet classroom setting throughout the 2021-2022 academic year, in two waves four months apart (October 2021, February 2022). The Mykolas Romeris University ethics committee (No. 6/-202) approved the study. Participants were informed they could withdraw from participation at any time, and the research team provided opportunities for questions and debriefing. Questionnaires took around 30-40 minutes to complete, but students were given ample time. A brief break with a dot-to-dot puzzle was introduced in the mid-questionnaire. The Lithuanian study achieved an initial

participation rate of 65.2% from the student population of 1159. The two waves included 713 and 728 participants respectively, with 680 students participating in both. After excluding classrooms with under 60% participation, rates increased to 71.4% and 69.3% for the two waves.

A similar approach was used for the USA sample. With written parental approval, participating students completed questionnaires on tablets in a quiet classroom. Data collection occurred in September 2021 and January-February 2022 by a trained research team. The research was approved by the university Institutional Review Board (#135501-16). Students across all 14 4th-5th grade classrooms were invited to participate; 10 classrooms had participation rates above 60% (M=78.7%, *SD*=9.8%). The USA sample had participation rates of 69% for wave 1 and 69.4% for wave 2, rising to 73.7% and 74.2% respectively after excluding low participation (below 60%) classes.

Peer nomination data was collected on all students in participating classes, enabling participants to nominate non-participating classmates. This resulted in only three students missing nomination data points at each wave which resulted from students joining/leaving after wave 1. Scores were standardized using a regression-based technique that adjusts peer nomination score based on variations within the group and group size (Velásquez et al., 2013), providing a more robust alternative to simply multiplying nominations by the proportion of participants.

Monte Carlo simulations (Muthén & Muthén, 2002) with 1,000 replications were conducted to determine the sample size needed for adequate power (i.e., 80%) to detect statistically significant ($p<.05$) effects. The results indicated that all analyses were adequately powered. Specifically, a minimum sample of 550 was necessary to detect small (B=.20) effects.

Item-level missingness ranged from 11.6-31.6% (M=16.643%, *SD*=5.27) at Time 1, and 12.2-31.4% (M=18.4%, *SD*=7.1) at Time 2. Little's MCAR (missing completely at random) test indicated data were missing completely at random, $\chi 2(97673)=98023.577$, $p=0.214$. Thus, missing item-level data were imputed via the EM algorithm with 25 iterations separately for each wave.

Wave-level missingness for self-reported variables accounted for an average of 8.2% of data across variables (range=6.2-9.9%). Regression analyses did not predict missingness based on observed demographics, supporting the MCAR assumption, meeting a prerequisite for using Full Information Maximum Likelihood (FIML) to handle missing wave level data.

Instruments underwent translation from English to Lithuanian by a bilingual team, then back-translation by a separate team, with differences resolved through discussion. Questionnaire items were given to the participants in a randomized order to avoid the presentation-order effect.

3.3. Measures

3.3.1. Evaluation of research measures

To evaluate the validity of self-reported measures, Confirmatory Factor Analysis (CFA) was implemented using the Maximum Likelihood (ML) function. The analyses in this study were performed using separate measures for each tested model; consequently, CFA was conducted separately for each study variable. Additionally, longitudinal measurement invariance analysis was performed to confirm that the instruments perform equally across different time points (Steenkamp & Baumgartner, 1998). To achieve this, three invariance models were tested and compared for each study variable: *Configural* invariance model which is done by performing CFA with the items at Time 1 and Time 2 with no model restrictions. Secondly, the *metric* invariance model is tested which presumes equivalence between factor loadings across the two time points. Thirdly, the *full scalar* invariance model is tested which checks the assumption that expected scores on all items are equivalent across time points after controlling for differences in the means of their respective latent constructs (Geldhof & Stawski, 2015). The model should fit the data with a comparative fit index (CFI) being close to or above 0.95 and Root Mean Square Error of Approximation (RMSEA) being close to or below 0.06 (Hu & Bentler, 1999). The models are then compared using recommendations suggested by Chen (2007) suggesting that for models to be significantly different, ΔCFI should be >-.010; ΔRMSEA should be >.015. If the longitudinal invariance models do not differ significantly and fit the data well, it can be assumed that the measurements are stable across time.

3.3.2. Peer report measures

Peer-reported physical and relational victimization, physical aggression, and disruptiveness were measured using peer-reported nomination data. Participants completed a peer assessment questionnaire which consisted of a roster of questions on which they identified the names of classmates who best fit a description. Unlimited same and other-sex nominations were permitted. *Physical victimization* was measured by asking students to nominate unlimited classmates who meet the description of "someone who is hit or pushed by others". *Relational victimization* was measured by asking students to nominate classmates who meet the description of "Someone who is called names or made fun of by others". *Disruptiveness* was measured by asking students to nominate unlimited classmates who meet the description of "Someone who acts out or disrupts class". *Physical aggression* was evaluated by asking students to nominate unlimited classmates who meet the description of "Someone who fights or hits others". Single-item peer nomination measures are considered to be reliable because each informant is treated as a separate indicator (Bukowski et al., 2012), although nominations describing observable traits tend to be more reliable than those describing preferences (Cillessen, & Marks, 2017). Furthermore, previous research

has indicated that peer reports reliably identify children experiencing victimization (Scholte et al., 2013). Additionally, peer reports have been validated as a trustworthy method for assessing aggressive and disruptive behaviors, given that children may downplay such behaviors in self-reports (Erath et al., 2008).

3.3.3. Self-report measures

Physical and Relational Victimization. For self-report measures of physical victimization and relational victimization, we used three items on physical victimization (e.g., How often has another child hit, kicked, or shoved you?) and three items on relational victimization (e.g., How often has another child called names or made fun of you?) from the "Peer Victimization: Social Experiences Questionnaire" (Crick & Grotpeter, 1996). Participants answered questions on a scale of 1 to 5 (*1 – never, 5 – always*). The average score from the 3 items was calculated for physical and relational victimization scores respectively. Cronbach's Alpha was .786 for Time 1 and .837 for Time 2 for physical victimization. For self-report measures of relational victimization, Cronbach Alpha was .837 for Time 1 and .833 for Time 2. We used an abbreviated version of the questionnaire that originally had 5 questions for relational and physical victimization each, however, it is not uncommon to abbreviate questionnaires regarding victimization due to logistic and practical reasons (not to overwhelm the participants with the number of questions) since abbreviated questionnaires reliably depict victimization (Solberg & Olweus, 2003). The questionnaire typically has a moderate correlation with peer reports of victimization (Storch et al., 2005). In current data the correlation coefficients between self and peer reports of victimization varied between .187 and .298, all significant. Confirmatory factor analysis (CFA) revealed acceptable levels of model fit and factor loadings between .723 and .834 (Mean=.789) for relational victimization and .707 and .780 (Mean=.779) for physical victimization (Hair et al., 2019). However, due to the measures only having 3 items each, model fit indices for the CFA could not be acquired. Additionally, longitudinal measurement invariance analysis was conducted. For physical victimization, a *full scalar* invariance model was created (Steenkamp & Baumgartner, 1998) with good model fit (CFI=.999; RMSEA=.008 [.000; .054]) that did not significantly differ from the *configural* invariance model (ΔCFI=.001; ΔRMSEA=-.009). For relational victimization, the *full scalar* invariance model also had a good model fit (CFI=.985; RMSEA=.066 [.044; .089]) that did not significantly differ from the *configural* invariance model (ΔCFI=.001; ΔRMSEA=-.009). Therefore, it can be concluded that the factor contribution structure operated equivalently over time. Full model fit information is given in supplemental Table S22.

Conduct problems and emotional symptoms. For self-reported measurements of conduct problems and emotional symptoms, we used items from the Strengths and Difficulties Questionnaire (Goodman, 1997). For conduct problems (some research regards it as externalizing symptoms (Papachristou & Flouri, 2020), participants responded to 5 questions regarding various behavioral problems (e.g., I break rules at home, school, or elsewhere). For emotional symptoms (some research regards it as

internalizing symptoms (Papachristou & Flouri, 2020), 6 items corresponding to various emotional issues were used (e.g. I worry a lot). All items were on a scale from 1 to 5 (*1 – never, 5 – always).* The average score from the items was used for both conduct problems and emotional symptoms. Cronbach's Alpha for conduct problems was .734 for Time 1 and .755 for Time 2. CFA revealed acceptable, but on the lower end, factor loadings ranged from .422 to .688 (Mean=.598). For emotional symptoms, the internal reliability score of Cronbach Alpha was .822 for Time 1 and .833 for Time 2, whereas CFA revealed factor loadings that ranged from .524 to .860 (Mean=.638). While average factor loadings below 0.7 are not considered ideal it is often considered acceptable (Hair et al., 2019). It is not uncommon for the strengths and difficulties questionnaire factor loadings to be on the lower side, which does not take away from its validity as a measure (Kersten et al., 2016). Additionally, longitudinal measurement invariance analysis was conducted. For conduct problems, a *full scalar* invariance model was established (Steenkamp & Baumgartner, 1998) with good model fit (CFI=.978; RMSEA=.042 [.029; .054]) that did not significantly differ from the *configural* invariance model (ΔCFI=.002; ΔRMSEA=.003). For emotional symptoms, the *full scalar* invariance model had an acceptable model fit (CFI=.925; RMSEA=.075 [.067; .084]) that did not significantly differ from the *configural* invariance model (ΔCFI=-.001; ΔRMSEA=-.009). Therefore, it can be concluded that the factor contribution structure operated equivalently over time.

Delinquent behavior. For delinquent behavior, we used 4 items based on measures by Bendixen & Olweus (1999). Participants responded to questions (e.g., Taken things from a store without paying?) on a scale from 1 to 5 (*1 – never, 5 – always).* The average score from the 4 items was used. Cronbach's Alpha was .769 for T1 and .830 for T2. CFA revealed factor loadings ranging from .408 to .759 (Mean=.684). While there is an item at the lower end of acceptable, the average level of factor loadings was acceptable (Hair et al., 2019). Additionally, longitudinal measurement invariance analysis was conducted. The *full scalar* invariance model was established (Steenkamp & Baumgartner, 1998) with good model fit (CFI=.968; RMSEA=.057 [.045; .070]), however, it did significantly differ from the *configural* invariance model (ΔCFI=.014; ΔRMSEA=-.008). Therefore, partial invariance was tested by releasing one indicator at a time between the time points. Since only one indicator was responsible for the model differences, as suggested by Little (2013) it is not a sufficient reason to remove the item since other indicators appear to be invariant across time. Therefore, all items were kept in the further analyses.

Loneliness. Participants completed an abbreviated 3-item loneliness scale (Parker & Asher, 1993). Participants responded to three items that corresponded to their sense of loneliness (e.g., I feel alone at school). All items were on a scale from 1 to 5 (*1 – never, 5 – always)* and the 3 items were averaged. Although relying on 3 questions may sometimes raise concerns about the depth of the measurement, in this study the general sense of loneliness as a single factor was measured and did not include previously used social dissatisfaction or friendship quality attributes (Müller et al., 2018). Considering high internal reliability that ranged from .930 at Time 1 to .940 at Time

2, a larger number of items may not be essential. CFA factor loadings also suggest that this is a reliable method to measure the sense of loneliness and range from .897 to .897 (Mean=.904). Additionally, longitudinal measurement invariance analysis was conducted. A *full scalar* invariance model was established (Steenkamp & Baumgartner, 1998) with good model fit (CFI=1; RMSEA=.018 [.000; .054]) that did not significantly differ from the *configural* invariance model (ΔCFI=-.001; ΔRMSEA=.011). Therefore, it can be concluded that the factor contribution structure operated equivalently over time.

3.4. Plan of analysis

3.4.1. Group Actor-Partner Interdependence Model (G-APIM)

To test the hypotheses—that a higher discrepancy from classroom descriptive norms of victimization (i.e., being victimized in classrooms with lower victimization norms) increases the likelihood of exhibiting externalizing problem behaviors (Disruptiveness, conduct problems, delinquent behavior, physical aggression) and experiencing more internalizing problems (Emotional symptoms and loneliness) both concurrently and later in the year—the Group Actor-Partner Interdependence Model (G-APIM; Garcia et al., 2015; Kenny and Garcia, 2012) was implemented. G-APIM is an analytical model that unravels interrelations between an individual and the group - in this instance, between students and their respective classrooms. G-APIM is an extension of the Actor partner interdependence model, however in this case the partner is not an individual partner but the group in which a focal individual is in. In this study, the group of interest is the classroom (or more pointedly, the classmates) of the focal student. When a partner is a group, while, in reality, there is interdependence (the individual has an effect on the group and the group has an influence on the individual) a more conventional approach is only to analyze the effects of the group on the individual, but not the other way around. Hence, for this analysis, we will investigate classroom dynamics predicting individual outcomes as is standard for G-APIM (Kenny and Garcia, 2012).

A standard approach to G-APIM analysis is to compare several sub-models of G-APIM with one another and choose the best-fitting one. It is recommended to build the models in an advancing order, starting with the simplest one and adding variables and increasing complexity (Kaufman et al., 2022). Overall, 13 different sub-models can be tested that are created based on G-APIM, but it is advisable to choose those which correspond to the hypotheses. Before proceeding to explain the different sub-models of G-APIM , the essential principles of creating the sub-models will be presented.

The G-APIM variables

G-APIM is predicated upon four key predictor variables, generated from the principal predictor variable and its classroom variations: *x, x', i*, and *i'*. See Figure 1d for reference.

The variable *x* (Individual victimization) in this case describes the individual score on the predictor variable. For peer-reported victimization, it signifies the standardized number of received victimization nominations by an individual, for self-reported victimization measures it represents the mean score of self-reported victimization.

The variable *x'* (Classroom descriptive victimization norm) describes the classroom's average level of the predictor variable (victimization), excluding the focal individual. In this study context, for peer-reported victimization it corresponds to the average number of nominations received by students in the individual's classroom, for self-reported victimization it corresponds to the class's average score of self-reported victimization. The exclusion of the focal individual is an important aspect of creating the group variable x' because while the individual is a part of the group and adds to the descriptive norms, in G-APIM analysis we are looking at the dynamic between the individual and the group, hence only the norms defined by others are considered. If the score of the focal individual were to be included in the group descriptive norm, when predicting an outcome in a sub-model that includes both individual and the group scores, it would be impossible to know if the group score (in our case average level of victimization) is not generated from the score of the individuals. For example, a victimized individual nominated by most peers could be the only victimized person, in such a case their inclusion in the group norm would suggest a higher level of victimization in the classroom, even though it would be boosted only by the victimized focal student.

The third variable and a unique aspect of G-APIM is *i* (discrepancy from classroom victimization norm) which represents the dissimilarity between the individual and the group. The variable *i* is calculated as the absolute value of the average of the difference between the scores of the individual in victimization (x) and the scores of every other classmate's levels of victimization (x of others). In other terms, it represents how much on average the focal student is different from other students in the classroom. This value is multiplied by 2 and divided by the highest value (standardizing the value to be from 0 to 2). Then 1 is subtracted creating a variable ranging from -1 (absolute dissimilarity) to 1 (absolute similarity). Importantly, this variable does not discern which direction of dissimilarity is perceived. In our case, it does not explain whether the individual has gained more or fewer victimization nominations than the average of the classroom. The variable measures how different the individual is to their classmates, but not in which direction (more or less victimized). This limitation is addressed by supplemental simple slope analysis.

The fourth variable is *i'* (Classroom victimization homogeneity) which defines the homogeneity of the group within the classroom, in other words, how high of a variance there is in the classroom without the individual. It is calculated as the average difference between all other students in the classroom excluding the focal individual. This variable is a unique aspect of the G-APIM model because it addresses an important aspect of the potential significance of how the victimization is spread in the classroom that could be important when predicting various outcomes. An example could be two hypothetical classrooms in one of which everyone is slightly victimized whereas in

another one some children are very victimized, and some are not victimized at all. The average levels of victimization in the classroom would be the same, but the dynamic of the victimization would be categorically different. A classroom where everyone is slightly victimized would be very homogenous, whereas a classroom where few are strongly victimized and some are not, the homogeneity would be low. Therefore, it is important to address homogeneity as well to understand how similarity between other students may be associated with outcomes of interest.

The G-APIM sub-models

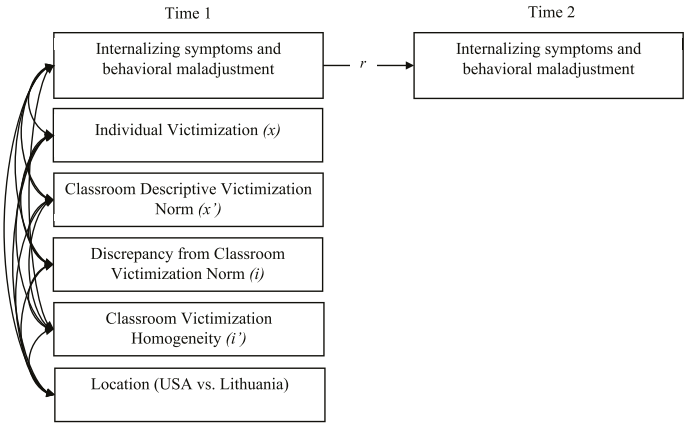
For the testing of the hypotheses of this study, which is that victimized students in classrooms where victimization norms are low will experience more internalizing and externalizing problems than victimized students in classrooms with higher victimization norms. Essentially the essence of this hypothesis is best captured by the variable "*i*" which corresponds to the discrepancy between the individual and the classroom in terms of victimization, which would reveal if students who are more different from the classroom victimization norms are worse off or not which is the essence of the healthy context paradox. To test this, several sub-models of G-APIM were tested to identify the one that best fits the data both cross-sectionally and longitudinally. While the hypothesis emphasizes the discrepancy between an individual and the classroom (e.g., a child being victimized in a classroom where other students uniformly are not victimized), this situation is most aptly captured by the *complete sub-model* or *similarity contrast sub-model* that involves the variable "*i*". However, the standard procedure recommends starting with the simplest model. This approach is not only conventional but is especially relevant since limited research exists on the "healthy context paradox" and the individual's deviation from the group norm. Even if the hypotheses are not validated, examining simpler models remains valuable. It is pertinent to determine if victimization or classroom-wide victimization levels significantly predict student maladjustment. The conceptual longitudinal *complete sub-model* (complete in the sense that it includes all 4 G-APIM variables) of G-APIM is presented in Figure 1d. Cross-sectional models in all cases include the same G-APIM variables as longitudinal models, but the outcome variable is Time 1 Internalizing symptoms and Behavioral maladjustment (Figure 1e).

When performing a comparison of the sub-models, all of the sub-models included all the variables of the G-APIM. When testing the assumption that certain predictors aren't needed, only the paths from those predictors to the outcome variable were set to 0, with the variables still included in the sub-model as Time 1 covariates (covariates in the case with cross-sectional analysis). The same pattern of results in terms of sub-model choice emerged when eliminating the variables completely from the sub-models.

The procedure started with the simplest *empty sub-model* (Figure 1a) which involves only an autoregressive path (*r*) (and included only the covariates in the cross-sectional analysis case). In this way, all paths from the 4 G-APIM variables are set to be equal to 0. In this study, this checks the assumption that the outcome variable is not

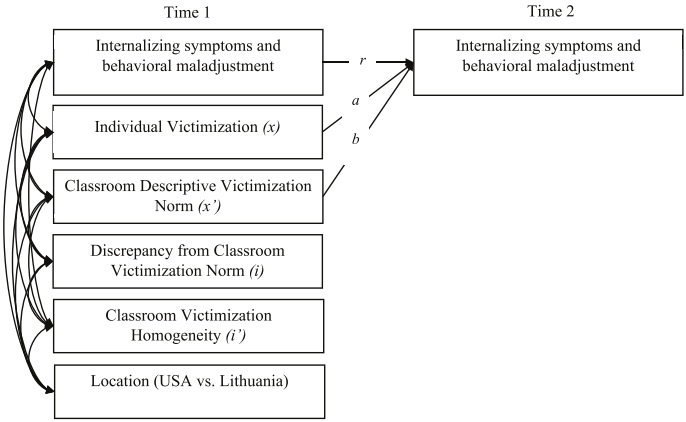
predicted either by victimization, or group levels of victimization, or the interactions between the individual and the group in terms of victimization.

Figure 1a. Conceptual longitudinal G-APIM empty Sub-model



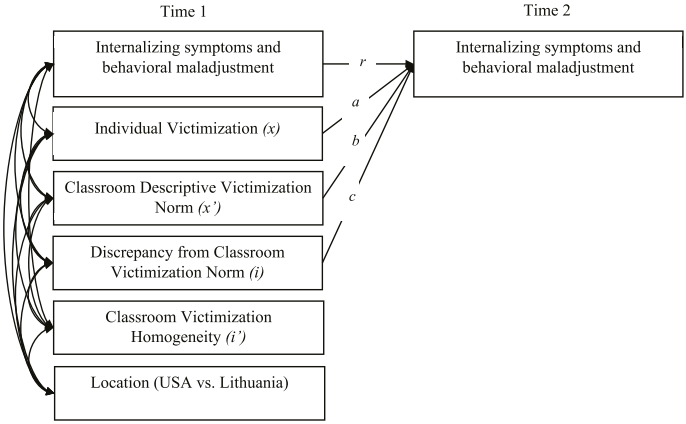
Note. The figure depicts the longitudinal empty sub-model that includes autoregressive path (r) and location as a covariate.

Figure 1b. Conceptual longitudinal G-APIM main-effects Sub-model



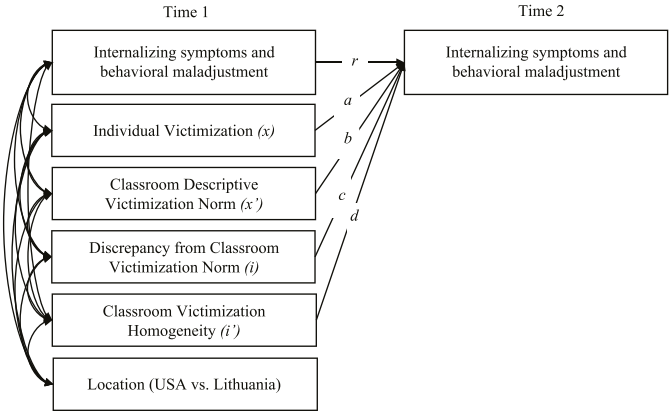
Note. The figure depicts the longitudinal Main effects sub-model including autoregressive path (r), actor effects path (a), group effects path (b), and location as a covariate. Contrast sub-model includes autoregressive path (k), actor effects path (a), and group effects path (b), but the a and b paths are set to be equal in size but opposite in effect direction.

Figure 1c. Conceptual longitudinal G-APIM person-fit Sub-model



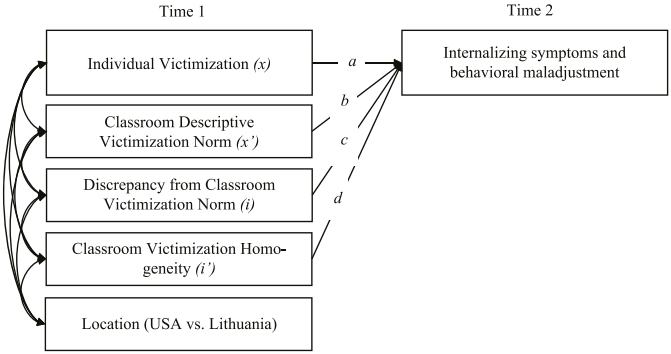
Note. The figure depicts longitudinal Person fit sub-model including autoregressive path (*r*), actor effects path (*a*), group effects path (*b*), discrepancy effects path (*c*), and location as a covariate.

Figure 1d. Conceptual longitudinal G-APIM complete Sub-model



Note. The figure depicts the longitudinal *Complete* sub-model that includes autoregressive path (*r*), actor effects path (*a*), group effects path (*b*), discrepancy effects path (*c*), and homogeneity path (*d*), and location as a covariate. *Similarity contrast* sub-model includes all depicted paths but the paths *c* and *d* are set to be equal in size but opposite in effect direction. *The full contrast* sub-model includes all depicted paths but the paths a with *b*, as well as *c* with d are set to be equal in size but opposite in the direction effect.

Figure 1e. Conceptual Concurrent data G-APIM complete Sub-model



Note. The figure depicts the cross-sectional *Complete* sub-model that includes actor effects path (*a*), group effects path (*b*), discrepancy effects path (*c*), homogeneity path (*d*), and location as a covariate. *Similarity contrast* sub-model includes all depicted paths but the paths c and d are set to be equal in size but opposite in effect direction. The full contrast sub-model includes all depicted paths but the paths a with b, as well as c with d are set to be equal in size but opposite in the direction effect.

The second sub-model is the *Main Effects Model (*Figure 1b): This sub-model considers both actor effects (*a*) path, stemming from Individual victimization (*x*) and group effects (*b*) path, stemming from Classroom descriptive norms of victimization (*x'*). However, the discrepancy effects (*c*) path, stemming from the discrepancy from classroom descriptive victimization norms variable (*i*) and homogeneity effects (*d*) path, stemming from classroom homogeneity variable (*i'*) are assumed negligible, keeping these paths set to zero. Essentially, in this study, this sub-model checks the assumption that both descriptive classroom victimization norms and individual victimization predict the outcome, but the discrepancy from the classroom norms and the homogeneity of the classroom does not.

The third sub-model is *Person-fit Model* (Figure 1c): In addition to the *main effects* sub-model (i.e., paths *a* and *b*), this sub-model includes the discrepancy effects path (*c)* representing the difference between an individual's level of victimization and the average level of victimization in their classroom. This sub-model assumes that in addition to individual victimization and classroom descriptive victimization norms, the difference between the individual and their classmates in terms of victimization predicts the outcome. Homogeneity effect (*d*) it set to 0.

The fourth sub-model is the *Complete Sub-model* (Figure 1d): Extending beyond the person-fit sub-model, this sub-model incorporates classroom homogeneity effects path (*d)* describing the similarity of others in terms of victimization. This sub-model checks the assumption that in addition to individual victimization and classroom descriptive victimization norms, the discrepancy from the classroom victimization norms and the homogeneity of the classroom predicts the outcome variable. (Garcia et al., 2015).

It should be noted that in both *person fit* and *complete* sub-models the *x* and *x'* variables are still included as predictors, which is important because the *i* and *i'* variables are created from them. This suggests that if the *x* and the *x'* variables were to be omitted, then *i* and *i'* would be more likely to be significant predictors of the outcomes, but there would be no controlling for individual levels of victimization or classroom descriptive norms. Because, relatively unavoidably, in this case, children who are more discrepant from the classroom in terms of victimization will also be victimized, without controlling for individual victimization, it would be impossible to say if the discrepancy from the classroom or the individual levels of victimization better predicts the outcomes, hence all variables are included.

The presented sub-models were the base sub-models of G-APIM. Additionally, a few other sub-models were tested which could give more insights into the findings:

The *contrast sub-model* (Figure 1b) is set to investigate whether outcome variables (internalizing and externalizing problems) varied as a function of social comparisons between individual victimization and peer level of victimization. It assumes that both the individual levels of victimization (*x*) and classroom levels of victimization (*x'*) predict the outcome but with opposite signs, such as that it checks the assumption that a child implicitly or explicitly compares oneself with others and the effect of individual victimization is relative to the victimization of others. In other words, the effects of

individual victimization surface only when the victimization of others is low. This sub-model is performed by following the procedure done by Gommans et al., (2017) whereas firstly it must meet the requirement that in the *main-effects* sub-model paths *a* and *b* are similar in strength but in opposite directions. In that case, the actor effects path (*a*) and the group effects path (*b*) are set to be equal, but with opposite valence of each other.

The *similarity contrast* sub-*model* (Figure 1d) includes all 4 G-APIM variables, but the discrepancy from the classroom norm effects (*c*) and homogeneity of the group effects paths (*d*) are set to be opposite of each other. Before confirming this sub-model it should be confirmed that the complete model has both paths *c* and *d* predicting the outcome with similar effect size but in opposite directions. This sub-model checks the assumption that the discrepancy from the classroom victimization norms (*i*) predicts the outcome better when the classroom is homogenous (*i'*), hence, the child is different among relatively similar peers.

The final sub-model which was tested is the *full contrast* sub-model (Figure 1d) where both the actor effects path (*a*), and group effects path (*b*) are set to be equal but opposite of each other, as well as discrepancy effects path (*c*) and homogeneity effects path (*d*) are also set to be equal but opposite of each other. This sub-model should be considered if, in the *complete* sub-model, the *a* and *b* paths as well as *c* and *d* paths predict similarly in strength but in opposite directions. This sub-model checks the assumption that victimization (*x*) predicts the outcome variable depending on the classroom norms (*x'*) (victimized student with low levels of average victimization) and that the difference from the classroom norm (*i*) predicts the outcome depending on the homogeneity of the classroom (*i'*) (child is different among similar peers). In more simple terms this corresponds to an assumption that higher levels of victimization of a student among non-victimized peers who are homogenous in their non-victimization is the best predictor of the outcome variable.

Following the combined procedure of Gommans et al., (2017) and Kaufman et al., (2022) this study compared the model fit based on SABIC (Sample-Size Adjusted Bayesian Information Criterion) and RMSEA fit indices. SABIC is used to evaluate model fit by balancing goodness-of-fit with model complexity. Similar to BIC (Bayesian Information Criterion), it penalizes models with more parameters to prevent overfitting, but it applies a correction that makes it more appropriate for smaller samples. Lower SABIC values indicate better model fit, with differences greater than 10 generally considered meaningful (Raftery, 1995). However, since no single index provides a definitive measure of model adequacy (Peugh & Feldon., 2020), SABIC is interpreted alongside RMSEA, to ensure a more comprehensive evaluation. The RMSEA is a widely used fit index that evaluates model discrepancy per degree of freedom. When comparing models, a decrease in RMSEA of at least .015 is generally considered a meaningful improvement in model fit (Chen, 2007). In cases where SABIC and RMSEA yield conflicting results, priority is given to the index with a significant change threshold (Chen, 2007). We compared SABIC and RMSEA model fit scores to select the best-fitting sub-model, with the caveat that the additional path in a sub-model must be statistically

significant (e.g., if the *person-fit model* had a better fit than the *main effect model* but the *c* path in the *person-fit model* was nonsignificant then the *main effect model* would be selected (Garcia et al., 2015)). Additionally, the chosen model must fit the data at least as well as the *complete sub-model*. Finally, in case changes in RMSEA and SABIC contradict one another (one decreases, but the other increases) the model with significant change (ΔSABIC>10; ΔRMSEA>.015) as suggested by Chen (2007) is chosen. In cases where both RMSEA and SABIC change in opposite directions, but both do not reach significant changes, the index that changed proportionally more (ΔSABIC of 1 would equal ΔRMSEA of .001) is chosen.

Considering that when comparing the models with one another, it is possible to compare models that essentially do not fit the data, but one is still better than the other. To avoid this, for the chosen final models, minimum requirements were established based on Hu and Bentler (1999) guidelines: The Tucker–Lewis Index (TLI) and the Comparative Fit Index (CFI), should be as close to 1 and considered very good if above 0.95. The Root Mean Square Error of Approximation (RMSEA) should be close to 0, best below 0.06 and SRMR (Standardized Root Mean Square Residual) should be below 0.08. In this study, instances of perfect fit (CFI = 1, RMSEA = 0) were observed in some models, indicating that the specified structure closely aligns with the observed data. However, this perfect fit is not attributable to a lack of degrees of freedom, as all the tested models included a covariate and were not fully saturated. Prior research has noted similar occurrences (Best & Mayerl, 2013; Shroff & Thompson, 2004).

The G-APIM analysis was conducted with Mplus 8.4 (Muthén & Muthén, 1998-2018) using the ML function. The analysis was also replicated using the Bayesian estimator. The same pattern of significant results emerged using the ML function and the Bayesian estimator, hence the results presented are from the analysis that used the ML function.

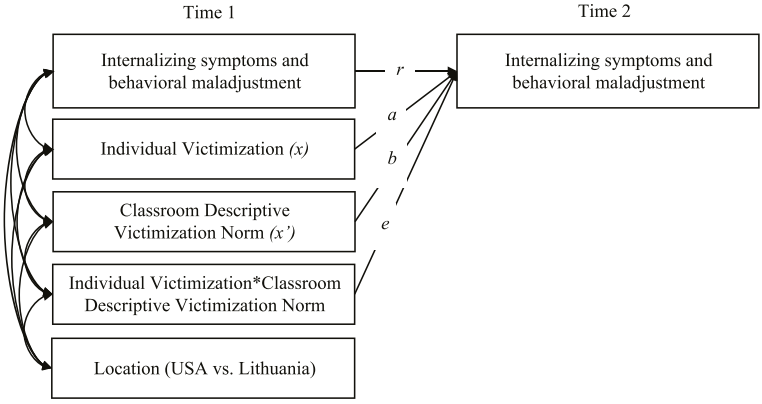
Notably, the students are nested in classrooms, however, since G-APIM variables are created based on the group and the models investigate the interrelationships between the student and the classroom it essentially becomes dyadic data and therefore we did not cluster it in classrooms. Intraclass correlations for our variables varied between .001 and .157 (M=0.054). However, only one variable (peer-reported victimization) exceeded the intraclass correlation of 0.1 which could suggest that group-level effects are important, but that multilevel modeling may be peripheral (Hedges & Hedberg, 2007). Additionally, considering that the G-APIM model building essentially accounts for the classroom level victimization levels and the homogeneity, it could be deemed that multilevel adjustments or additional controlling for nesting were not essential for the results. Finally, since the classroom average level of victimization variable is unique for each individual and is included in the analysis as a predictor variable, multilevel analysis was not used, as group-level variables should be calculated for the whole group, not for each individual. Although multilevel analysis could potentially be an alternative method to approach current hypotheses, G-APIM is used in this case.

3.4.2. Supplemental analyses

To visualize our results as a follow-up we implemented a simple slope analysis using IBM SPSS 26 with the addon of PROCESS (Hayes, 2012) in which we calculated the *i* term as an interaction between x and x' terms. In this way, we illustrate the idea that being victimized in a classroom where victimization of others is not normative (discrepancy from classroom norm) leads to negative outcomes. This approach has been previously implemented when using G-APIM and allows for visualization via simple slope analysis (Theodorou et al., 2021). The follow-up analysis was performed for the variables that in the main analyses had significant actor effects (path *a*) or discrepancy effects (path *c*). This is done because essentially if the *i* term is calculated as an absolute difference or an interaction term, considering our data, in both cases, it would signify similar things: the difference between the individual and the classroom, different calculations may fail to capture certain results, which could be captured with simple slope analysis. The analytical model of the regression analysis performed for simple slopes is presented in Figure 2.

Simple slope analysis also addresses the unspecified direction of the *i* variable (the discrepancy from the classroom victimization norm does not specify if the student is more, or less victimized than the classroom norm). If the findings reveal that victimization significantly predicts the outcome differently depending on descriptive classroom victimization norms, it will automatically reject the possibility that the discrepancy effects appear because the child is less victimized than the norm (not more).

Figure 2. Simple Slope Regression Analytical Model



Note. r - the autoregressive path; a - the actor effects path; b - and group effects path; e – interaction path.

Finally, Supplemental multiple-group contrasts were performed. These analyses examined whether direct and indirect paths differed between boys and girls, primary

and secondary school students, and USA and Lithuania students. The analysis was performed by comparing our final models of choice between the two groups with the regression paths set to be equal among the groups, freeing paths of interest one at a time, for each analysis. The differences between the chi-square of the original model and the model with one path allowed to vary were compared between the two groups. Even though certain gender and age differences are acknowledgeable in terms of levels of victimization, delinquent behavior, and acting out, we have no reason to assume that the association between victimization and perceived outcomes should be different. In other words, for example, even though girls on average may be less physically victimized than boys (Hosozawa et al., 2021), there is no reason to assume that the association between physical victimization and perceived outcomes for girls should be different than for boys. Because no hypotheses for group differences in how victimization predicts outcome variables were raised, Bonferroni correction was applied when interpreting multigroup analysis results. This means that for the analysis to be considered significant, the p-value would have to be less than .05 even when multiplied by the number of paths tested for each model.

4. RESULTS

4.1. Preliminary analysis

4.1.1. Descriptive statistics

Table 2 shows the descriptive statistics of the variables used in the study. Notably, several variables had skewness exceeding 2, namely Self-reported delinquent behavior, peer-reported disruptiveness, peer-reported physical aggression, peer-reported physical victimization, and peer-reported relational victimization. For peer-reported victimization variables skewed data is common since it involves a lot of zeroes from students who do not receive victimization nominations (e.g., Kaufman et al., 2022). Some authors suggest transforming the skewed data (Hammouri et. al., 2020). Acknowledging this, the same preliminary main models that involved the skewed variables were tested with the same variables not transformed and transformed by having the variables squared (used for positively skewed data). Since no significant differences occurred, accounting for the fact that G-APIM transforms variables to create the G-APIM variables, it was preferred to use non-transformed variables for further analyses.

Minimum values for all self-report variables ranged from 1 to 5. For peer-report items, values ranged from 0 (no nominations) to 20 (the maximum amount of nominations received in the research). Notably, in some cases, the number of nominations is not an integer number, which is the result of the regression-based standardization procedure.

4.1.2. Correlational analysis

Table 3 presents correlation (Pearson's *r*) coefficients between the variables. Most of the variables, expectedly, correlated with each other. It could be noted that Time 1's conduct problems did not correlate with peer-reported relational victimization (*r*=.058 [-.018; 136]), time 1 physical aggression did not correlate with loneliness (*r*=.059 [-.041; 162]), and emotional symptoms did not correlate with peer-reported physical victimization (*r*=.069 [-.016; 158]).

For time 2 variables, self-reported loneliness did not correlate with peer-reported disruptiveness (*r*=.031 [-.063; 120]) and peer-reported physical aggression (*r*=.012 [-.079; 116]). Peer-reported physical victimization did not correlate with self-reported emotional symptoms (*r*=-.026 [-.103; 078]). Significant correlations between self-reported items and peer nominations were weak, ranging from *r*=.081 to *r*=.247.

Table 2. *Descriptive statistics of the study variables.*

	Time 1					Time 2				
Variable	Min-max	*M*	*SD*	Skew.	Kurt.	Min-max	*M*	*SD*	Skew.	Kurt.
Self-report Conduct problems	1-5	1.858	0.655	0.909	0.997	1-5	1.856	0.688	1.205	2.115
Self-report Delinquent behavior	1-5	1.254	0.475	3.330	14.730	1-5	1.254	0.512	3.661	17.430
Peer-report Disruptiveness	0-17	1.583	3.051	2.675	7.400	0-20	1.580	3.030	2.706	7.967
Peer-report Physical aggression	0-17	1.144	2.380	3.246	12.617	0-17.5	0.888	2.043	4.371	24.848
Self-report Emotional symptoms	1-5	2.469	0.797	0.517	0.003	1-5	2.488	0.824	0.339	-0.321
Self-report Loneliness	1-5	1.902	1.024	1.226	0.869	1-5	1.881	1.020	1.250	0.965
Peer-report Physical victimization	0-9.6	0.436	0.958	3.681	20.98	0-12.5	0.371	0.865	5.738	60.320
Self-report Physical victimization	1-5	1.616	0.813	1.812	3.366	0-5	1.587	0.808	1.780	3.248
Peer-report Relational victimization	0-11.5	0.529	1.080	4.103	26.451	0-10.5	0.521	1.009	3.966	24.516
Self-report Relational victimization	1-5	1.926	0.944	1.213	1.005	1-5	1.884	0.959	1.182	0.807

Note. N=706. Min-Max = Minimum value and Maximum value; M = Mean; SD = Standard deviation; Skew. = Skewness; Kurt. = Kurtosis.

Table 3. *Correlations and autocorrelations of included Time 1 and Time 2 variables*

	1	2	3	4	5	6	7	8	9	10
1. SR Conduct problems	.578**	.427**	.119**	.143**	.503**	.399**	.118**	.500**	.058	.500**
2. SR Delinquent behavior	.533**	.421**	.109*	.116**	.128**	.222**	.176**	.387**	.137**	.314**
3. PR Disruptiveness	.247**	.222**	.886**	.813**	-.091*	.040	.490**	.129**	.355**	.108**
4. PR Physical aggression	.225**	.149**	.787**	.850**	-.095*	.059	518**	.219**	.427**	.135**
5. SR Emotional symptoms	.502**	.205**	-.136**	-.139	.659**	.548**	.069	.355**	.046**	.442**
6. SR Loneliness	.416**	.266**	.031	.012	.557**	.543**	.169**	.458**	.229**	.624**
7. PR Physical Vict.	.064	.096*	.307**	.368**	-.026	.120**	.562**	.328**	.633**	.248**
8. SR Physical Vict.	.530**	.430**	.259**	.286**	.296**	.404**	.256**	.541**	.273**	.729**
9. PR Relational Vict.	.127**	.132**	.223**	.244**	.081	.215**	.654**	.275**	.647**	.266**
10. SR Relational Vict.	.503**	.371**	.196**	.196**	.388**	.560**	.233**	.733**	.293**	.563**

Note. N=706. Time 1 results are presented above the diagonal. Time 2 results are presented below the diagonal. Autocorrelations are presented on the diagonal. Confidence intervals depicted in supplemental table S21.

SR = Self-report; PR = Peer report; Vict. = Victimization;

**p<.05. **p<.01.*

4.1.3. Gender, school level, and location differences

Separate 2 (time) by 2 (gender); 2 (time) by 2 (primary and secondary school), and 2 (time) by 2 (location) ANOVAs were conducted with all the variables (self-report and peer-report) as dependent variables. Time was the repeated measure. Notably, there is a difference between the school systems of Lithuania and the USA. The primary school in Lithuania ends and children transition to middle school after the 4th grade whereas in the USA it ends after 5th grade. Therefore, when comparing countries, we only used primary school student data, because we only used 4th and 5th-grade students from the USA, thus if we had used full Lithuanian data as a comparison, potential differences could've occurred due to age, not locational differences. The same reasoning applies to comparing primary (4th grade from Lithuania and 4th and 5th grade from USA) with secondary school (5th, 6th, 7th grade students from Lithuania) students. Comparing these groups based on the grade only could skew the results. It seemed more appropriate to compare school levels.

Only one difference emerged for changes in variables through time, based on gender. Full results are depicted in supplemental table S1. There was a statistically significant gender × time interaction on peer-reported physical victimization (F(1, 698)=8.042; p=.003; d=.21). Physical victimization decreased for boys (F(1, 327)=12.408, p=.000; d=.389), but not for girls (F(1, 300)=0.036, p=.849; d=.000).

Several differences emerged when comparing changes in means for primary and secondary school students. Full results are depicted in supplemental table S2. A significant middle/primary school x time interaction emerged for emotional symptoms (F(1, 639)=13.843, p=.004; d=.292). Emotional symptoms decreased for primary school students (F(1, 253)=5.515, p=.020; d=.292), but not for secondary school students (F(1, 386)=2.885, p=.090; d=.167). Significant middle/primary school x time interactions emerged for self-reported physical victimization (F(1, 621)=7.291, p=.007; d=.220) which also decreased for primary school students (F(1, 235)=6.275, p=.013; d=.326) but not for secondary school students (F(1, 386)=.810, p=.369; d=.089). Differences emerged for peer-reported physical victimization (F(1, 698)=6.158, p=.013; d=.190) which decreased for primary school students (F(1, 277)=10.961, p=.001; d=.397) but did not change for secondary school students (F(1, 421)=1.041, p=.308; d=.089). Differences emerged for peer-reported relational victimization (F(1, 698)=9.302, p=.002; d=.229) which increased for primary school students (F(1, 277)=4.690, p=.031; d=.263) and decreased for secondary school students (F(1, 421)=4.244, p=.040; d=.201).

As expected, there were no significant country x time interactions found which suggests that in both the Lithuanian sample and the USA sample, the variables changed or remained stable throughout time similarly, regardless of differences at their baseline levels. Full results are depicted in supplemental table S3.

Additionally, several differences emerged between genders for the means of the variables of interest across the two time points. Girls on average scored higher on loneliness (F(1, 627)=8.794, p=.003; d=.238) and emotional symptoms (F(1, 639)=24.937, p=.000; d=397) than boys. On the other hand, boys on average scored higher on

delinquent behavior ($F(1, 595)=9.233$, $p=.002$; $d=.246$), self-reported physical victimization ($F(1, 621)=15.123$, $p=.000$; $d=.313$), peer-reported physical victimization ($F(1, 698)=11.787$, $p=.001$; $d=.263$), disruptiveness ($F(1, 699)=24.965$, $p=.000$; $d=.375$) and physical aggression ($F(1, 699)=60.208$, $p=.000$; $d=.585$).

Several differences emerged between primary school students and secondary school students for the means of our variables of interest across the two time points. On average emotional symptoms ($F(1, 639)=13.843$, $p=.000$; $d=.292$.) were reported higher by primary school students than by secondary school students. Self-reported relational victimization was also reported significantly higher by primary school students than by secondary school students ($F(1, 623)=5.000$, $p=.026$; $d=.179$). Primary school students also reported higher levels of peer-reported physical victimization ($F(1, 698)=29.261$, $p=.000$; $d=.408$) as well as peer-reported relational victimization ($F(1, 698)=4.491$, $p=.034$; $d=.132$).

Finally, several differences emerged between Lithuanian and USA primary school students for the means of our variables of interest across the two time points. Students from USA on average scored higher on Loneliness ($F(1, 240)=4.301$, $p=.039$; $d=.270$), emotional symptoms ($F(1, 252)=19.719$, $p=.000$; $d=.582$), and peer-reported disruptiveness ($F(1, 276)=4.162$, $p=.042$; $d=.246$).

Additionally, we tested the changes in reported variables over time with general linear modeling, comparing the means between Time 1 and Time 2 variables. The full results are reported in supplementary table S4. Two significant results emerged. Peer-reported levels of physical victimization decreased from Time 1 to Time 2 ($F(1, 699)=9.818$, $p=.002$; $d=.238$). The mean decreased from 0.471 at Time 1 to 0.371 at Time 2. And secondly, peer-reported physical aggression decreased from Time 1 to Time 2 ($F(1, 700)=17.574$, $p=.000$; $d=.313$). The mean decreased from 1.094 at Time 1 to 0.887 at Time 2. Findings indicate that physical victimization and physical aggression decreased during the semester.

4.2. Victimization Predicting Adjustment Problems: Results from Group Actor Partner Interdependence Models

4.2.1. Peer-reported physical victimization predicting peer-reported disruptiveness, physical aggression, self-reported loneliness, and emotional symptoms

Table S5 shows concurrent and Table 4 shows longitudinal model fit indices of the different G-APIM sub-models for Peer-reported physical victimization predicting peer-reported disruptiveness, physical aggression self-reported loneliness, and emotional symptoms.

Peer-reported Disruptiveness

Concurrent results

For peer-nominated physical victimization predicting peer-reported disruptiveness, the best fitting model was *person-fit* ($\chi 2(2)=2.825$, p=.243; *RMSEA*=.024[.000;.083]; *CFI*=.997; SRMR=.025). The results of the sub-model comparison are depicted in Table S5. The sub-model involves paths (*a, b, c)* from 3 G-APIM predictor variables (*x, x', i*). Compared to the alternative sub-models, the *person-fit* sub-model had the lowest RMSEA and SABIC scores, and the additional freed path (c) was statistically significant.

Table S9 describes the concurrent results. Time 1 physical victimization, lower classroom descriptive victimization norms, and higher discrepancy from classroom victimization norms predicted Time 1 peer-reported disruptiveness. The more victimized and the more dissimilar students were to their peers in terms of physical victimization, the more disruptiveness they exhibited. The lower the classroom descriptive victimization norms (excluding the focal individual) were for physical victimization; the more individual student peer-reported disruptiveness was expressed. This confirms the misfit hypothesis, whereas discrepancy from classroom victimization norms predicted disruptiveness.

A Follow-up Simple slope analysis with physical victimization predicting disruptiveness based on classroom descriptive victimization norms was performed. Figure S1a and supplemental table S17 present the results. There was a stronger statistically significant positive association between Time 1 peer-reported individual victimization and Time 1 disruptiveness at low levels of classroom victimization norms (1 *SD* below the mean) (B=2.055, *p*=.000) than at high levels of victimization norms (1 *SD* above the mean) (B=1.323, *p*=.000), since the interaction term was significant (β=-.231; p=.001). In classrooms where victimization is less normative, victimization is more strongly associated with disruptiveness, than in classrooms where victimization is more normative.

Longitudinal results

For peer-nominated physical victimization predicting peer-reported disruptiveness, the best fitting model was *similarity contrast* ($\chi 2(2)=0.069$, p=.966; *RMSEA*=.000[.000;.000]; *CFI*=1; SRMR=.001). The results of the sub-model comparison are depicted in Table 4. The sub-model involves paths (*a, b, c, d*) from all 4 G-APIM predictor variables (*x, x', i, and i'*) but discrepancy and homogeneity paths (*c* and *d*) are set to be equal but opposite to each other, checking the assumption that disruptiveness is highest for students who are discrepant from descriptive classroom norms while other students in the class are more homogenous. Compared to alternative sub-models, the *similarity contrast* sub-model had the lowest RMSEA scores, and the additional freed paths (*c* and *d*) were statistically significant. The SABIC was lowest in the *full contrast model*, but the *similarity contrast* sub-model was selected because the RMSEA was lower by more than .010, whereas the SABIC in the *full contrast* sub-model was higher by less than 1.

Table 5 and figure S5 depict the results for the longitudinal *similarity contrast* sub-model of G-APIM with 4 predictor variables. Time 1 discrepancy from peer-reported physical classroom victimization norms and Time 1 classroom victimization homogeneity predicted Time 2 disruptiveness. The more dissimilar students were to their peers on initial peer-reported physical victimization in more homogenous classrooms (excluding the focal individual) in terms of initial victimization, the more individual student disruptiveness increased from Time 1 to Time 2. The discrepancy from descriptive classroom victimization norms predicts disruptiveness more in classrooms where other students are less discrepant from one another, emphasizing the misfit hypothesis. Time 1 peer-reported individual victimization (*x*) and Time 1 classroom descriptive victimization norms (*x'*) did not significantly predict Time 2 disruptiveness. Initial student victimization and initial classroom levels of victimization were unrelated to changes in disruptiveness from Time 1 to Time 2.

A Follow-up simple slope analysis with victimization predicting increased disruptiveness based on classroom descriptive victimization norms was performed. Figure 3a and supplemental table S13 present the results. There was a statistically significant positive association between Time 1 peer-reported individual victimization to Time 2 disruptiveness at low levels of classroom victimization norms (1 *SD* below the mean) (B=.402, *p*=.000) but not at high levels of victimization norms (1 *SD* above the mean) (B=-.056, *p*=.500). In classrooms where victimization is less normative, victimization is associated with disruptiveness, whereas in classrooms where victimization is more normative, it is not. This further confirms that victimized children who are misfit to classroom norms (victimized more than descriptive norms) show increases in disruptiveness, whereas children who do not diverge from classroom norms by being victimized, do not show increases in disruptiveness.

Both cross-sectional and longitudinal results confirm the misfit hypothesis that discrepancy from classroom physical victimization norms predicts disruptiveness throughout the year.

Discrepancy from classroom descriptive victimization norms is associated with higher disruptiveness concurrently and increases in disruptiveness throughout the year. Whereas physical victimization predicted disruptiveness concurrently, only discrepancy from classroom victimization norms predicted increases in disruptiveness throughout time.

Peer-reported Physical aggression

Concurrent results

The best-fitting sub-model for peer-reported physical victimization predicting peer-reported physical aggression concurrently was the *Person-fit* sub-model ($\chi 2(2)=2.730$, p=.255; *RMSEA*=.023[.000;.082]; *CFI*=.998; SRMR=.025). The results of the sub-model comparison are depicted in Table S5. The sub-model involves paths (*a, b, c)* from 3 G-APIM predictor variables (*x, x', i*).

Table 4. *Comparison of Longitudinal G-APIM models for individual-group similarity of peer-reported physical victimization on peer-reported: disruptiveness, physical aggression, and self-reported: loneliness and emotional symptoms.*

Outcome	Model fit indices	Empty	Main effects	Person-fit	Complete	Contrast	Similarity contrast	Full contrast
Disrupt.	SABIC	632.28	630.847	630.355	629.596	630.586	**626.275**	626.058
	RMSEA	.056	.049	.039	000	.005	**.000**	.011
	[95% CI]	[.027; .088]	[.006; .091]	[.000; .093]	[.000; .023]	[.016; .087]	**[.000; .000]**	[.000; .065]
Physical aggression	SABIC	-145.873	-153.4	**-171.433**	-168.404	-156.73	-159.527	-162.849
	RMSEA	.094	.094	**.000**	.000	.008	.086	.067
	[95% CI]	[.067; .124]	[.060; .133]	**[.000; .046]**	[.000; .065]	[.049; .114]	[.044; .134]	[.031; .107]
Loneliness	SABIC	**-1626.04**	-1619.87	-1616.73	-1617.5	-1623.02	-1619.34	-1622.49
	RMSEA	**.000**	.026	.039	.000	.015	.000	.000
	[95% CI]	**[.000; .052]**	[.000; .073]	[.000; .093]	[.000; .000]	[.000; .060]	[.000; .069]	[.000; .052]
Emotional symptoms	SABIC	-2381.1	-2380.17	-2381.8	**-2384.46**	-2383.38	-2376.81	-2380.02
	RMSEA	.058	.062	.054	**.000**	.051	.081	.063
	[95% CI]	[.030; .090]	[.026; .103]	[.007; .106]	**[.000; .072]**	[.017; .087]	[.039; .129]	[.027; .103]

Note. N=706. Numbers in bold refer to the final selected models. SABIC = Sample Adjusted Bayesian information criterion; RMSEA = Root Mean Square Error of Approximation; G-APIM = group actor–partner interdependence model; Disrupt. = Disruptiveness

Compared to the alternative sub-models, the *person-fit* sub-model had the lowest RMSEA and SABIC scores, and the additional freed path (c) was statistically significant.

Table S9 describes the concurrent results. Time 1 physical victimization, lower classroom descriptive victimization norms, and higher discrepancy from classroom victimization norms predicted Time 1 peer-reported physical aggression. The more victimized and the more dissimilar students were to their peers in terms of physical victimization, the more physical aggression they exhibited. The lower the classroom descriptive victimization norms (excluding the focal individual) were for physical victimization; the more individual student peer-reported physical aggression was expressed. This confirms the misfit hypothesis, whereas discrepancy from classroom victimization norms predicted physical aggression.

A Follow-up Simple slope analysis with physical victimization predicting physical aggression based on classroom descriptive victimization norms was performed. Figure S1b and supplemental table S17 present the results. There was a stronger statistically significant positive association between Time 1 peer-reported individual victimization and Time 1 physical aggression at low levels of classroom victimization norms (1 *SD* below the mean) (B=1.684, *p*=.000) than at high levels of victimization norms (1 *SD* above the mean) (B=1.067, *p*=.000), since the interaction term was significant (β=-.262; p=.000). In classrooms where victimization is less normative, victimization is more strongly associated with physical aggression than in classrooms where victimization is more normative.

Longitudinal results

For peer-nominated victimization predicting Physical aggression, the best-fitting sub-model was *the person-fit* sub-model ($\chi 2(2)=0.429$, p=.807; *RMSEA*=.000[.000;.046]; *CFI*=1; SRMR=.001). The results of the sub-model comparison are depicted in Table 4. The sub-model involves paths (*a, b, c)* from 3 G-APIM predictor variables (*x, x', i*). Compared to the alternative sub-models, the *person-fit* sub-model had the lowest RMSEA and SABIC scores and the additional freed *(c*) path was statistically significant.

Table 5 and figure S6 depict the results for the *person fit* sub-model of G-APIM with 3 predictor variables. Time 1 discrepancy from classroom victimization norms and Time 1 lower classroom descriptive victimization norms predicted Time 2 peer-reported physical aggression. The more dissimilar students were to their peers on initial peer-reported victimization, the more their physical aggression increased from Time 1 to Time 2. The lower the classroom descriptive victimization norms (excluding the focal individual) were for initial physical victimization, the more individual student peer-reported physical aggression increased from Time 1 to Time 2. This confirms the misfit hypothesis, whereas discrepancy from classroom victimization norms predicted physical aggression, however, the homogeneity of the classroom was not included in the model. Time 1 peer-reported individual victimization (*x)* did not significantly predict Time 2 physical aggression. Initial student victimization was unrelated to changes in physical aggression from Time 1 to Time 2.

A Follow-up Simple slope analysis with victimization predicting increased physical aggression based on classroom descriptive victimization norms was performed. Figure 3b and supplemental table S13 present the results. There was a statistically significant positive association between Time 1 peer-reported individual victimization to Time 2 physical aggression at low levels of classroom victimization norms (1 *SD* below the mean) (B=.436, *p*=.000) but not at high levels of victimization norms (1 *SD* above the mean) (B=.098, *p*=.139). In classrooms where victimization is less normative, victimization is associated with physical aggression, whereas in classrooms where victimization is more normative, it is not. This further confirms that victimized children who are misfit to classroom norms (victimized more than descriptive norms) show increases in physical aggression, whereas children who do not diverge from classroom norms by being victimized, do not show increases in physical aggression.

Both cross-sectional and longitudinal results confirm the misfit hypothesis suggesting that discrepancy from classroom descriptive victimization norms is associated with higher physical aggression concurrently and increases in physical aggression throughout the year.

Whereas physical victimization predicted physical aggression concurrently, only discrepancy from classroom victimization norms predicted increases in physical aggression throughout time.

Self-reported loneliness

Concurrent results

The best fitting sub-model for peer-reported physical victimization predicting loneliness was the *main effects* sub-model ($\chi 2(3)=5.322$, p=.150; *RMSEA*=.033[.000;.078]; *CFI*=.990; SRMR=.025). The results of the sub-model comparison are depicted in Table S5. The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict loneliness. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores. *Contrast* sub-model had lower RMSEA score, but since it included paths c and d, that were not significant, *main effects* model was selected.

Table S9 describes the concurrent results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 1 self-reported loneliness. The more victimized students were the more loneliness they experienced. Classroom descriptive victimization norms did not significantly predict self-reported loneliness.

A Follow-up Simple slope analysis with physical victimization predicting loneliness based on classroom descriptive victimization norms was performed. Figure S1c and supplemental table S17 present the results. There were no significant differences between the associations between victimization and loneliness based on classroom descriptive victimization norms. The interaction term was not significant (β=-.109; p=.201). This does not confirm the misfit hypothesis concurrently.

Table 5. *G-APIM results from the best fitting sub-models: Peer-reported physical victimization predicts peer-reported: disruptiveness and physical aggression and self-reported: loneliness and emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Disruptiveness (peer report).			
Similarity contrast sub-model			
Disruptiveness (peer report) (T1)	**.863**	**[.837; .889]**	**.000**
Individual Victimization (*x*)	-.058	[-.139; .022]	.156
Classroom Descriptive Victimization Norm (*x'*)	-.006	[-.053; .042]	.812
Discrepancy from Classroom Victimization Norm (*i*)	**-.116**	**[-.197; -.036]**	**.005**
Classroom Victimization Homogeneity (*i'*)	**.064**	**[.019; .108]**	**.005**
Outcome: Time 2 Physical aggression (peer report)			
Person fit sub-model			
Physical aggression (T1)	**.767**	**[.730; .803]**	**.000**
Individual Victimization (*x*)	-.054	[-.135; .026]	.183
Classroom Descriptive Victimization Norm (*x'*)	**-.054**	**[-.098; -.011]**	**.014**
Discrepancy from Classroom Victimization Norm (*i*)	**-.193**	**[-.274; .-112]**	**.000**
Outcome: Loneliness (Self-report)			
Empty sub-model			
Loneliness (T1)	**.544**	**[.489; .599]**	**.000**
Outcome: Emotional symptoms (self-report)			
Complete sub-model			
Emotional symptoms (T1)	**.650**	**[.605; .695]**	**.000**
Individual Victimization (*x*)	-.042	[-.177; .093]	.542
Classroom Descriptive Victimization Norm (*x'*)	**.173**	**[.006; .285]**	**.003**
Discrepancy from Classroom Victimization Norm (*i*)	.044	[-.137; .450]	.531
Classroom Victimization Homogeneity (*i'*)	**.147**	**[-.209; -.004]**	**.014**

Note: N=706 All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate. In similarity contrast, sub-model paths c and d (from i and i') are set to be equal but opposite of each other.

Results significant at p<.05 in bold.

Figure 3a. Time 1 Peer-reported Physical Victimization Predicting Time 2 Peer-reported Disruptiveness at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

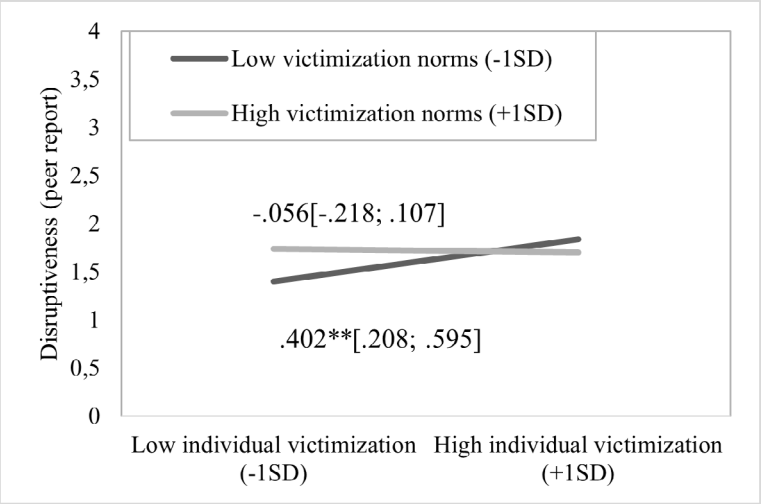
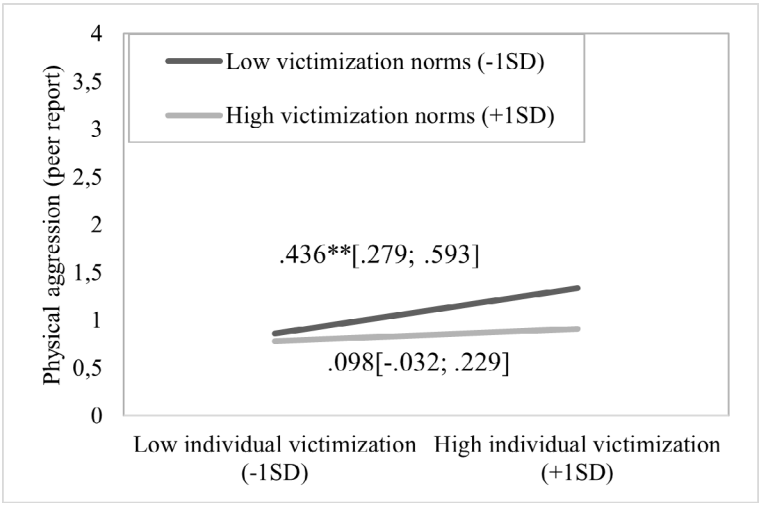


Figure 3b. Time 1 Peer-reported Physical Victimization Predicting Time 2 Peer-reported Physical Aggression at Low and High Levels of Classroom Peer-reported Physical Victimization Norms (x').



Note. $N = 706$; * $p < .05$; ** $p < .001$.

Longitudinal results

For peer-nominated victimization predicting self-reported loneliness, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=4.994$, p=.416; *RMSEA*=.000[.000;.052]; *CFI*=1; SRMR=.008). The results of the sub-model comparison are depicted in Table 4. The sub-model suggests that neither peer-reported physical victimization nor the group composition of the variable predicts changes in loneliness. The sub-model includes only the autoregressive path (*k*) but none of the G-APIM variables. Compared to the alternative sub-models, the *empty* sub-model had the lowest RMSEA and SABIC scores. This suggests that neither individual physical victimization, nor classroom descriptive victimization norms, nor discrepancy from the classroom victimization norms nor homogeneity of the classroom victimization norm significantly predict changes in loneliness. These findings do not align with the misfit hypothesis. Follow-up analyses were not performed for the empty model.

Both concurrent and longitudinal results do not confirm the misfit hypothesis. Discrepancy from classroom physical victimization norms did not predict loneliness.

Physical victimization predicted loneliness concurrently but did not predict increases in loneliness across time.

Self-reported emotional symptoms

Concurrent results

The best fitting sub-model for peer-reported physical victimization predicting emotional symptoms was the *main effects* sub-model ($\chi 2(3)=3.433$, p=.329; *RMSEA*=.014[.000;.067]; *CFI*=.998; SRMR=.024). The results of the sub-model comparison are depicted in Table S5. The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict loneliness. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores.

Table S10 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization did not predict Time 1 self-reported emotional symptoms. Classroom descriptive victimization norms predicted emotional symptoms concurrently. The higher the victimization norms in the classroom the higher the emotional symptoms. The follow-up simple slope analysis was not performed because victimization did not significantly predict emotional symptoms.

Longitudinal results

For peer-nominated victimization predicting self-reported emotional symptoms, the best-fitting sub-model was *the complete* sub-model ($\chi 2(1)=0.135$, p=.713; *RMSEA*=.000[.000;.072]; *CFI*=1; SRMR=.002). The results of the sub-model comparison are depicted in Table 4. The sub-model included paths (*a, b, c, d*) from all 4 G-APIM predictor variables (*x, x', i, and i'*). Compared to the alternative sub-models,

the *complete* model had the lowest RMSEA and SABIC scores the additional path was statistically significant.

Table 5 and figure S7 depict the results for the *complete* sub-model of G-APIM with 4 predictor variables. Time 1 classroom descriptive victimization norms and Time 1 classroom victimization homogeneity predicted Time 2 self-reported levels of emotional symptoms. The higher the classroom descriptive victimization norms and the higher the homogeneity of the group, the more self-reported emotional symptoms increased from Time 1 to Time 2. Findings indicate that students in classrooms with high levels of victimization but also high levels of victimization homogeneity (other students are more similar to each other in terms of victimization) report increasing levels of emotional symptoms. These findings do not support the misfit hypothesis. Since neither individual victimization nor discrepancy from classroom descriptive victimization norms predicted emotional symptoms, the follow-up simple slope analysis was not performed because the paths *a* and *c* were non-significant.

Both concurrent and longitudinal results do not confirm the misfit hypothesis. Neither victimization nor discrepancy from descriptive classroom norms did not predict emotional symptoms, either concurrently or across time.

4.2.2. Peer-reported relational victimization predicting peer-reported disruptiveness and physical aggression and self-reported loneliness, and emotional symptoms

Table S6 presents the concurrent and Table 6 presents the longitudinal model fit indices of the different G-APIM sub-models for Peer-reported relational victimization predicting peer-reported disruptiveness, physical aggression and self-reported loneliness, and emotional symptoms.

Peer reported disruptiveness

Concurrent results

The best fitting sub-model for peer-reported relational victimization predicting peer-reported disruptiveness was the *main effects* sub-model ($\chi 2(3)=3.106$, p=.375; *RMSEA*=.007[.000;.064]; *CFI*=.999; SRMR=.005). The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict disruptiveness. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores. *The complete* sub-model had a lower RMSEA score, but since it included paths c and d, that were not significant, the *main effects* model was selected.

Table S10 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 1 peer-reported disruptiveness. The more victimized students were the more disruptiveness they

expressed. Classroom descriptive victimization norms did not significantly predict peer-reported disruptiveness.

A Follow-up Simple slope analysis with physical victimization predicting disruptiveness based on classroom descriptive victimization norms was performed. Figure S2a and supplemental table S18 present the results. There were no significant differences between the associations between victimization and disruptiveness based on classroom descriptive victimization norms. The interaction term was not significant (β=.135; p=.071). This does not confirm the misfit hypothesis concurrently.

Longitudinal results

For peer-nominated relational victimization predicting peer-reported disruptiveness, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=9.896$, p=.078; *RMSEA*=.037[.000;.071]; *CFI*=.996; SRMR=.010). The *empty* sub-model which tests the assumption that neither peer-reported physical victimization nor the group composition of the variable predicts changes in outcome variables and includes only the autoregressive path (*k*) but none of the G-APIM variables. Compared to the alternative sub-models the *empty* model did not have the lowest RMSEA and SABIC scores, but since all additional freed paths in alternative sub-models were non-significant, the *empty model* was selected based on the selection criteria.

Table 7 depicts the results. This model included only the autoregressive path (*k*) from Time 1 disruptiveness to Time 2 disruptiveness, but all the G-APIM variable paths (*a, b, c,* and *d*) were set to 0. This suggests that neither individual relational victimization, classroom descriptive victimization norms, the discrepancy from the classroom victimization norms, or homogeneity of the classroom victimization norm significantly predicts changes in peer-reported disruptiveness. These findings do not align with our hypothesis. Follow-up analyses were not performed for the *empty sub-model.*

Both concurrent and longitudinal results do not confirm the misfit hypothesis, as discrepancy from relational classroom descriptive victimization norms did not predict disruptiveness either concurrently nor across time.

Peer reported physical aggression

Concurrent results

The best fitting sub-model for peer-reported relational victimization predicting peer-reported physical aggression was the *complete* sub-model ($\chi 2(1)=0.093$, p=.760; *RMSEA*=.000[.000;.068]; *CFI*=1; SRMR=.003). The *complete* sub-model includes paths (*a, b, c, d)* from all 4 G-APIM predictor variables (*x, x', i, and i'*). Compared to the alternative sub-models, the *complete* sub-model had the lowest RMSEA and SABIC scores and the additional freed path was significant.

Table S10 describes the results for the *complete* sub-model of G-APIM with 4 predictor variables. Higher levels of Time 1 relational victimization and lower levels of classroom descriptive victimization norms and classroom homogeneity of

victimization predicted Time 1 peer-reported physical aggression. The more victimized students were the more physical aggression they expressed. Students were also more prone to physical aggression in classrooms with lower victimization norms and lower homogeneity of classmates in terms of victimization.

A Follow-up Simple slope analysis with physical victimization predicting physical aggression based on classroom descriptive victimization norms was performed. Figure S2b and supplemental table S18 present the results. There were no significant differences between the associations between victimization and physical aggression based on classroom descriptive victimization norms. The interaction term was not significant (β=.076; p=.301). This does not confirm the misfit hypothesis concurrently.

Longitudinal results

For peer-nominated relational victimization predicting self-reported physical aggression, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=8.492$, p=.131; *RMSEA*=.031[.000;.067]; *CFI*=.996; SRMR=.012). Compared to alternative sub-models the *empty* sub-model had the lowest SABIC, but did not have the lowest RMSEA, but since all additional freed paths in alternative sub-models were non-significant, the *empty model* had to be selected, based on the selection criteria.

Table 7 depicts the results. This model included only the autoregressive path from Time 1 physical aggression to Time 2 physical aggression, but all the G-APIM variable paths (*a, b, c,* and *d*) were set to 0. This suggests that neither individual relational victimization, classroom descriptive victimization norms, discrepancy from the classroom victimization norms, or homogeneity of the classroom victimization norm significantly predicts changes in peer-reported physical aggression. These findings do not align with our hypothesis. Follow-up analyses were not performed for the empty model.

Both concurrent and longitudinal results do not confirm the misfit hypothesis. Discrepancy from relational classroom descriptive victimization norms did not predict physical aggression either concurrently or across time.

Table 6. *Comparison of Longitudinal G-APIM models for individual-group similarity of peer-reported relational victimization on peer-reported: disruptiveness and physical aggression, and self-reported: loneliness and emotional symptoms.*

Outcome	Model fit indices	Empty	Main effects	Person-fit	Complete	Contrast	Similarity contrast	Full contrast
Disrupt.	SABIC	**-61.723**	-60.574	-57.233	-57.637	-62.138	-58.803	-60.308
	RMSEA	**.037**	.025	.004	.000	.027	.022	.027
	[95% CI]	**[.000; .071]**	[.000; .072]	[.000; .094]	[.000; .086]	[.000; .068]	[.000; .081]	[.000; .074]
Physical aggression	SABIC	**-814.02**	-809.823	-810.617	-808.598	-812.447	-806.758	-809.395
	RMSEA	**.031**	.037	.000	.000	.031	.051	.004
	[95% CI]	**[.000; .067]**	[.000; .081]	[.000; .072]	[.000; .084]	[.000; .070]	[.000; .102]	[.000; .083]
Loneliness	SABIC	-2417.01	-2413.54	-2411.9	-2412.73	-2416.91	-2415.92	**-2419.29**
	RMSEA	.035	.038	.004	.000	.027	.000	**.000**
	[95% CI]	[.000; .070]	[.000; .082]	[.000; .094]	[.000; .063]	[.000; .068]	[.000; .037]	**[.000; .000]**
Emotional symptoms	SABIC	**-3154.93**	-3149.39	-3146.19	-3143.85	-3151.66	-3147.09	-3149.36
	RMSEA	**.000**	.019	.033	.047	.018	.022	.010
	[95% CI]	**[.000; .052]**	[.000; .069]	[.000; .089]	[.000; .122]	[.000; .062]	[.000; .081]	[.000; .069]

Note. N=706. Numbers in bold refer to the final models. SABIC = Sample Adjusted Bayesian information criterion; RMSEA = Root Mean Square Error of Approximation; G-APIM = group actor–partner interdependence model; Disrupt. = Disruptiveness

Table 7. *G-APIM results from the best fitting sub-models: Peer-report relational victimization predicts peer-reported disruptiveness, physical aggression and self-reported loneliness, and emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Disruptiveness (peer report).			
Empty sub-model			
Disruptiveness (peer report) (T1)	**.886**	**[.870; .901]**	**.000**
Outcome: Time 2 Physical aggression (peer report)			
Empty sub-model			
Physical aggression (T1)	**.835**	**[.812; .857]**	**.000**
Outcome: Loneliness (Self-report)			
Full contrast sub-model			
Loneliness (T1)	**.528**	**[.471; .586]**	**.000**
Individual Victimization (*x*)	-.156	[-.342; .031]	.102
Classroom Descriptive Victimization Norm (*x'*)	.051	[-.010; .113]	.102
Discrepancy from Classroom Victimization Norm (*i*)	**-.229**	**[-.415; -.043]**	**.016**
Classroom Victimization Homogeneity (*i'*)	**.105**	**[.020; .190]**	**.016**
Outcome: Emotional symptoms (self-report)			
Empty sub-model			
Emotional symptoms (T1)	**.654**	**[.610; .698]**	**.000**

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Results significant at p<.05 in bold.

Self-reported loneliness

Concurrent results

The best fitting sub-model for peer-reported relational victimization predicting loneliness was the *main effects* sub-model ($\chi 2(3)=0.671$, p=.880; *RMSEA*=.000[.000;.031]; *CFI*=1; SRMR=.004). The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict loneliness. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores.

Table S10 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 1 self-reported loneliness. The more victimized students were the more loneliness they experienced. Classroom descriptive victimization norms did not significantly predict self-reported

loneliness.

A Follow-up Simple slope analysis with peer-nominated relational victimization predicting loneliness based on classroom descriptive victimization norms was performed. Figure S2c and supplemental table S18 present the results. There were no significant differences between the associations between victimization and loneliness based on classroom descriptive victimization norms. The interaction term was not significant (β=-.026; p=.747). This does not confirm the misfit hypothesis concurrently.

Longitudinal results

For peer-nominated relational victimization predicting self-reported loneliness, the best-fitting sub-model was *the full contrast* sub-model ($\chi 2(3)=0.274$, p=.964; *RMSEA*=.000[.000;.000]; *CFI*=1; SRMR=.002). The *full contrast* sub-model involves paths (*a, b, c, d*) from all 4 G-APIM predictor variables (*x, x', i, and i'*) but the paths *a* and *b* as well as *c* and *d* are set to be equal but opposite to each other in effect direction, checking the assumption that loneliest are the victimized students in low victimization classrooms and who are discrepant from descriptive classroom norms while other students in the class are more homogenous. Compared to the alternative sub-models, the *full contrast* sub-model had the lowest SABIC and RMSEA scores and the additional freed paths were significant therefore it was selected.

Table 7 and figure S8 depict the results for the *full contrast* sub-model of G-APIM with 4 predictor variables. Time 1 discrepancy from classroom victimization norms and Time 1 classroom victimization homogeneity predicted Time 2 self-reported loneliness. The more dissimilar students were to their peers on initial peer-reported victimization, and the more homogenous a classroom (excluding the focal individual) was in initial victimization, the more individual student loneliness increased from Time 1 to Time 2. The discrepancy from descriptive classroom victimization norms predicts loneliness when students are present in classrooms where other students are less discrepant from one another, emphasizing the misfit hypothesis. Time 1 peer-reported individual victimization (*x)* and Time 1 classroom descriptive victimization norms (*x'*) did not significantly predict Time 2 loneliness. Initial student victimization and initial classroom levels of victimization were unrelated to changes in loneliness from Time 1 to Time 2.

Follow-up Simple slope analysis with victimization predicting increased loneliness based on classroom descriptive victimization norms was performed. Figure 4a and supplemental Table S14 present the results. There was a statistically significant positive association from Time 1 peer-reported individual victimization to Time 2 loneliness at low levels of classroom victimization norms (1 *SD* below the mean) (B=.139, *p*=.002) but not at high levels of victimization norms (1 *SD* above the mean) (B=-.074, *p*=.056). In classrooms where relational victimization is less normative, victimization is associated with loneliness, whereas in classrooms where relational victimization is more normative, it is not (notably, for victimized students in classrooms with higher relational victimization norms, the prediction approached significance to the opposite direction). This further confirms that victimized children who are misfit to classroom

norms (victimized more than descriptive norms) show increases in loneliness, whereas children who do not diverge from classroom norms by being victimized, do not show increases in loneliness.

The misfit hypothesis was confirmed longitudinally. Higher discrepancy from classroom relational victimization norms predicted increases in loneliness across time.

Concurrently higher discrepancy from classroom victimization norms did not predict higher loneliness.

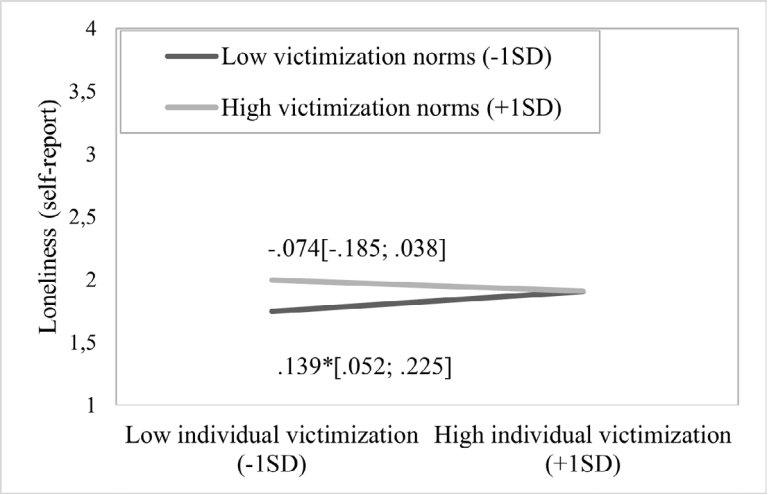
Self reported emotional symptoms

Concurrent results

The best fitting sub-model for peer-reported relational victimization predicting emotional symptoms was the *main effects* sub-model ($\chi 2(3)=2.199$, p=.532; *RMSEA*=.000[.000;.056]; *CFI*=1; SRMR=.009). The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict loneliness. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores.

Table S10 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization did not predict Time 1 self-reported emotional symptoms. Classroom descriptive victimization norms predicted emotional symptoms concurrently. The higher the victimization norms in the classroom the higher the emotional symptoms. The follow-up simple slope analysis was not performed because victimization did not significantly predict emotional symptoms.

Figure 4a. Time 1 Peer-reported Relational Victimization Predicting Time 2 Self-reported Loneliness at Low and High Levels of Classroom Self-reported Physical Victimization Norms (x').



Note. N = 706; * p < .05; ** p < .001.

Longitudinal results

For peer-nominated relational victimization predicting self-reported emotional symptoms, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=4.994$, p=.416; *RMSEA*=.000[.000;.052]; *CFI*=1; SRMR=.011). Compared to alternative sub-models the *empty* sub-model had the lowest SABIC and RMSEA scores, therefore this sub-model was selected.

Table 7 depicts the results. This sub-model included only the autoregressive path (*k*) from Time 1 emotional symptoms to Time 2 emotional symptoms, but all the G-APIM variable paths were set to 0. This suggests that neither individual relational victimization, classroom descriptive victimization norms, discrepancy from the classroom victimization norms or homogeneity of the classroom victimization norm significantly predicts changes in self-reported emotional symptoms. These findings do not align with our hypothesis. Follow-up analyses were not performed for the empty model.

Both concurrent and longitudinal results do not confirm the misfit hypothesis. Discrepancy from relational classroom descriptive victimization norms did not predict emotional symptoms either concurrently or across time.

4.2.3. Self-reported physical victimization predicting self-reported conduct problems, delinquent behavior, loneliness, and emotional symptoms

Table S7 presents the concurrent and Table 8 presents the longitudinal model fit indices of the different G-APIM sub-models for self-reported physical victimization predicting self-reported conduct problems, delinquent behavior loneliness, and emotional symptoms.

Self-reported conduct problems

Concurrent results: For self-reported physical victimization predicting self-reported conduct problems concurrently, the best fitting model was the *contrast sub-model* ($\chi 2(2)=0.186$, p=.911; *RMSEA*=.000[.000;.029]; *CFI*=1; SRMR=.005). The model involves the paths (*a, b, c, d)* from all 4 G-APIM predictor variables (*x, x', i, and i'*) but the paths c and d, are set to be equal but with opposing signs to each other. This checks the assumption that students who are discrepant from descriptive classroom norms while other students in the class are more homogenous exhibit more conduct problems. Compared to the alternative sub-models. The *contrast sub-model* had the lowest RMSEA and SABIC scores and the additional freed paths (*c* and *d*) were significant, hence it was chosen based on selection criteria.

Table S11 describes results for the *full contrast* sub-model of G-APIM with 4 predictor variables. Time 1 victimization, discrepancy from classroom victimization norms and Time 1 classroom victimization homogeneity predicted Time 1 self-reported conduct problems. The more dissimilar students were to their peers on self-reported relational victimization, and the more homogenous a classroom (excluding the focal individual) was in initial victimization, the higher the conduct problems. The discrepancy from descriptive classroom victimization norms predicts conduct problems when students are present in classrooms where other students are less discrepant from one another, emphasizing the misfit hypothesis.

A Follow-up Simple slope analysis with victimization predicting conduct problems based on classroom descriptive victimization norms was performed. Figure S3a and supplemental table S19 present the results. There was a statistically significant positive association between peer-reported individual victimization and conduct problems at both low levels of classroom victimization norms (1 *SD* below the mean) (B=.471, p=.000) and at high levels of victimization norms (1 *SD* above the mean) (B=.369, p=.560) but the association was weaker at high levels, although interaction term only approached significance (β=-.414, p=.074).

Longitudinal results:

For self-reported physical victimization predicting self-reported conduct problems, the best-fitting sub-model was *the full contrast* sub-model ($\chi 2(3)=1.088$, p=.779; R*MSEA*=.000[.000;.042]; *CFI*=1; SRMR=.005). It involves the paths (*a, b, c, d)* from all 4 G-APIM predictor variables (*x, x', i, and i'*) but the paths *a* and *b*, as well as c and d, are set to be equal but opposite to each other. This checks the assumption that victimized students in low victimization classrooms and who are discrepant from descriptive classroom norms while other students in the class are more homogenous exhibit more conduct problems. Compared to alternative sub-models, the *full contrast* sub-model had the lowest SABIC and RMSEA scores and the additional freed paths (*c* and *d*) were significant, hence it was chosen based on selection criteria.

Table 9 and figure S9 depict the results for the *full contrast* sub-model of G-APIM with 4 predictor variables. Time 1 discrepancy from classroom victimization norms and Time 1 classroom victimization homogeneity predicted Time 2 self-reported conduct problems. The more dissimilar students were to their peers on initial self-reported relational victimization, and the more homogenous a classroom (excluding the focal individual) was in initial victimization, the more individual student conduct problems increased from Time 1 to Time 2. The discrepancy from descriptive classroom victimization norms predicts conduct problems when students are present in classrooms where other students are less discrepant from one another, emphasizing the misfit hypothesis. Time 1 peer-reported individual victimization (*x)* and Time 1 classroom descriptive victimization norms (*x'*) did not significantly predict Time 2 conduct problems. Initial student victimization and initial classroom levels of victimization were unrelated to changes in conduct problems from Time 1 to Time 2.

A Follow-up Simple slope analysis with victimization predicting increased conduct problems based on classroom descriptive victimization norms was performed. Figure 5a and supplemental Table S15 present the results. There was a statistically significant positive association between Time 1 peer-reported individual victimization to Time 2 conduct problems at low levels of classroom victimization norms (1 *SD* below the mean) (B=.197, *p*=.000) but not at high levels of victimization norms (1 *SD* above the mean) (B=.022, *p*=.560). In classrooms where physical victimization is less normative, victimization is associated with conduct problems, whereas in classrooms where physical victimization is more normative, it is not. This further confirms that victimized children who are misfit to classroom norms (victimized more

than descriptive norms) show increases in conduct problems, whereas children who do not diverge from classroom norms by being victimized, do not show increases in conduct problems.

Both concurrent and longitudinal results confirm the misfit hypothesis, emphasizing that students who are more discrepant from classroom physical victimization norms are more prone to conduct problems concurrently and show increases in conduct problems over time.

Table 8. *Comparison of Longitudinal G-APIM models for individual-group similarity of self-reported physical victimization on self-reported: conduct problems, delinquent behavior, loneliness, and emotional symptoms.*

Outcome	Model fit indices	Empty	Main effects	Person-fit	Complete	Contrast	Similarity contrast	Full contrast
Conduct problems	SABIC	395.992	394.773	395.071	396.383	392.079	393.466	**390.687**
	RMSEA	.048	.032	.008	.000	.026	.000	**.000**
	[95% CI]	[.017; .081]	[.000; .077]	[.000; .075]	[.000; .044]	[.000; .067]	[.000; .048]	[.000; .042]
Del. behavior	SABIC	-334.87	-338.821	**-339.214**	-336.332	-341.197	-339.714	-342.083
	RMSEA	.053	.025	**.000**	.000	.021	.000	.000
	[95% CI]	[.023; .085]	[.000; .072]	**[.000; .049]**	[.000; .000]	[.000; .064]	[.000; .000]	[.000; .040]
Loneliness	SABIC	1579.123	1579.077	1580.983	1582.2	**1576.009**	1582.115	1579.055
	RMSEA	.039	.018	.012	.000	**.000**	.031	.018
	[95% CI]	[.000; .073]	[.000; .068]	[.000; .077]	[.000; .054]	**[.000; .057]**	[.000; .087]	[.000; .068]
Emotional symptoms	SABIC	**876.9**	881.317	883.327	886.538	878.995	883.826	881.535
	RMSEA	**.017**	.018	.014	.004	.016	.024	.002
	[95% CI]	**[.000; .057]**	[.000; .068]	[.000; .077]	[.000; .117]	[.000; .061]	[.000; .082]	[.000; .071]

Note. N=706. Numbers in bold refer to the final models. SABIC = Sample Adjusted Bayesian information criterion; RMSEA = Root Mean Square Error of Approximation; G-APIM = group actor–partner interdependence model; Del. behavior = Delinquent behavior.

Self-reported delinquent behavior

Concurrent results

For self-reported physical victimization predicting self-reported delinquent behavior, the best-fitting sub-model was the *person-fit* sub-model ($\chi 2(2)=2.980$, p=.225; R*MSEA*=.026[.000;.084]; *CFI*=.993; SRMR=.009). It involves the paths (*a, b, c*) from 3 G-APIM predictor variables (*x, x', i*). Compared to the alternative sub-models, the *person-fit* sub-model had the lowest RMSEA and SABIC scores except for the *complete* sub-model, however, because in the *complete sub*-model the path d was not significant, based on the selection criteria, *person-fit* sub-model was selected.

Table S11 describes the results for the *person-fit* sub-model of G-APIM with 3 predictor variables. Victimization and discrepancy from classroom victimization norms predicted self-reported delinquent behavior. The more victimized and dissimilar students were to their peers on initial self-reported relational victimization, the higher the individual delinquent behavior was. This confirms the misfit hypothesis.

A Follow-up Simple slope analysis with victimization predicting delinquent behavior based on classroom descriptive victimization norms was performed. Figure S3b and supplemental Table S19 present the results. There were no significant differences between the associations between victimization and delinquent behavior based on classroom descriptive victimization norms. The interaction term was not significant (β=-.220; p=.409). Whereas the findings suggest that higher discrepancy from classroom victimization norms is associated with higher levels of delinquent behavior, the follow-up analysis does not support these findings.

Longitudinal results

For self-reported physical victimization predicting self-reported delinquent behavior, the best-fitting sub-model was the *person-fit* sub-model ($\chi 2(2)=0.503$, p=.777; R*MSEA*=.000[.000;.049]; *CFI*=1; SRMR=.002). It involves the paths (*a, b, c*) from 3 G-APIM predictor variables (*x, x', i*). Compared to the alternative sub-models, the *person fit* model did not have the lowest SABIC score, but the sub-models that had lower SABIC scores were *Contrast, similarity,* and *full contrast* sub-models, for which to be chosen, additional criteria had to be met. The paths *a* and *b* or *c* and *d* had to have had a similar effect with opposite effect direction, which was not the case for self-reported physical victimization predicting delinquent behavior. Of the remaining sub-models, the *person-fit* sub-model had the lowest RMSEA and SABIC, therefore, the selected sub-model was the *person-fit* sub-model.

Table 9. *G-APIM results from the best fitting sub-models: Self-reported physical victimization predicts self-reported: conduct problems, delinquent behavior, loneliness, and emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Conduct problems			
Full contrast sub-model			
Conduct problems (T1)	**.540**	**[.477; .604]**	**.000**
Individual Victimization (*x*)	-.027	[-.161; .107]	.690
Classroom Descriptive Victimization Norm (*x'*)	.009	[-.037; .056]	.690
Discrepancy from Classroom Victimization Norm (*i*)	**-.151**	**[-.286; -.016]**	**.028**
Classroom Victimization Homogeneity (*i'*)	**.082**	**[.009; .156]**	**.028**
Outcome: Time 2 Delinquent behavior			
Person fit sub-model			
Delinquent behavior (T1)	**.372**	**[.298; .446]**	**.000**
Individual Victimization (*x*)	-.001	[-.148; .146]	.988
Classroom Descriptive Victimization Norm (*x'*)	**-.116**	**[-.199; -.034]**	**.006**
Discrepancy from Classroom Victimization Norm (*i*)	**-.154**	**[-.309; -.001]**	**.051**
Outcome: Loneliness (Self-report)			
Contrast sub-model			
Loneliness (T1)	**.505**	**[.441; .569]**	**.000**
Individual Victimization (*x*)	**.095**	**[.022; .168]**	**.010**
Classroom Descriptive Victimization Norm (*x'*)	**-.033**	**[-.058; -.008]**	**.010**
Outcome: Emotional symptoms (self-report)			
Empty sub-model			
Emotional symptoms (T1)	**.654**	**[.610; .698]**	**.000**

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate. In full contrast sub-model, paths a and b (from x and x') and c and d (from i and i') are set to be equal but opposite of each other. In contrast, sub-models, paths a and b (from x and x') are set to be equal but opposite of each other.

Results significant at p<.05 in bold.

Table 9 and figure S10 depict the results for the *person-fit* sub-model of G-APIM with 3 predictor variables. Time 1 discrepancy from classroom victimization norms approached significance (p=.051) predicting Time 2 self-reported delinquent behavior. Time 1 classroom descriptive victimization norms negatively predicted Time 2 self-reported delinquent behavior. The more dissimilar students were to their peers on initial self-reported relational victimization, and the lower the descriptive classroom norms of self-reported physical victimization (excluding the focal individual), the more individual delinquent behavior increased from Time 1 to Time 2. The discrepancy from descriptive classroom victimization norms predicts conduct problems more in classrooms with low victimization norms, emphasizing the misfit hypothesis. Time 1 self-reported individual victimization (*x*) did not significantly predict Time 2 delinquent behavior. Initial student victimization was unrelated to changes in delinquent behavior from Time 1 to Time 2.

A Follow-up Simple slope analysis with victimization predicting increased delinquent behavior based on classroom descriptive victimization norms was performed. Figure 5b and supplemental Table S15 present the results. There was a statistically significant positive association between Time 1 peer-reported individual victimization and Time 2 delinquent behavior at low levels of classroom victimization norms (1 *SD* below the mean) (B=.197, *p*=.000) but not at high levels of victimization norms (1 *SD* above the mean) (B=-.013, *p*=.677). In classrooms where physical victimization is less normative, victimization is associated with delinquent behavior, whereas in classrooms where physical victimization is more normative, it is not. This further confirms that victimized children who are misfit to classroom norms (victimized more than descriptive norms) show increases in delinquent behavior, whereas children who do not diverge from classroom norms by being victimized, do not show increases in delinquent behavior.

Longitudinal findings support the misfit hypothesis and suggest that higher discrepancy from classroom physical victimization norms is associated with increases in delinquent behavior.

Concurrent results show only partial support for the misfit hypothesis. Whereas higher discrepancy from classroom physical victimization norms is associated with higher rates of delinquent behavior, supplemental analysis did not show interaction effects.

Self-reported loneliness

Concurrent results

The best fitting sub-model for self-reported physical victimization predicting loneliness was the *main effects* sub-model ($\chi 2(3)=1.462$, p=.691; *RMSEA*=.000[.000;.048]; *CFI*=1; SRMR=.007). The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict loneliness. Compared to the

alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores.

Table S11 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 1 self-reported loneliness. The more victimized students were the more loneliness they experienced. Classroom descriptive victimization norms did not significantly predict self-reported loneliness.

A Follow-up Simple slope analysis with self-reported physical victimization predicting loneliness based on classroom descriptive victimization norms was performed. Figure S3c and supplemental table S19 present the results. There were no significant differences between the associations between victimization and loneliness based on classroom descriptive victimization norms. The interaction term was not significant (β=-.240; p=.326). This does not confirm the misfit hypothesis concurrently.

Figure 5a. Time 1 Self-reported Physical Victimization Predicting Time 2 Self-reported Conduct problems at Low and High Levels of Classroom Self-reported Physical Victimization Norms (x').

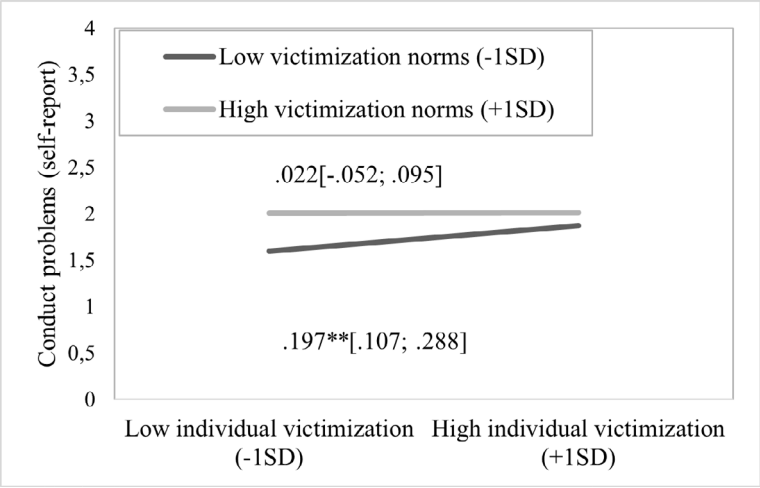


Figure 5b. Time 1 Self-reported Physical Victimization Predicting Time 2 Self-reported Delinquent behavior at Low and High Levels of Classroom Self-reported Physical Victimization Norms (x').

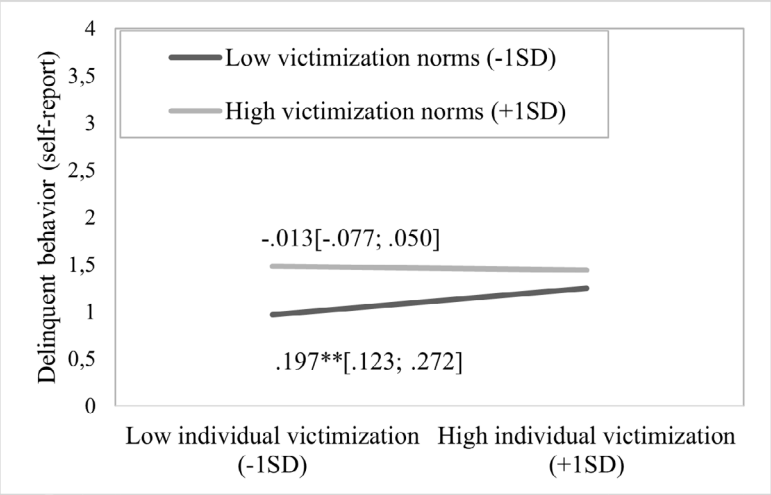
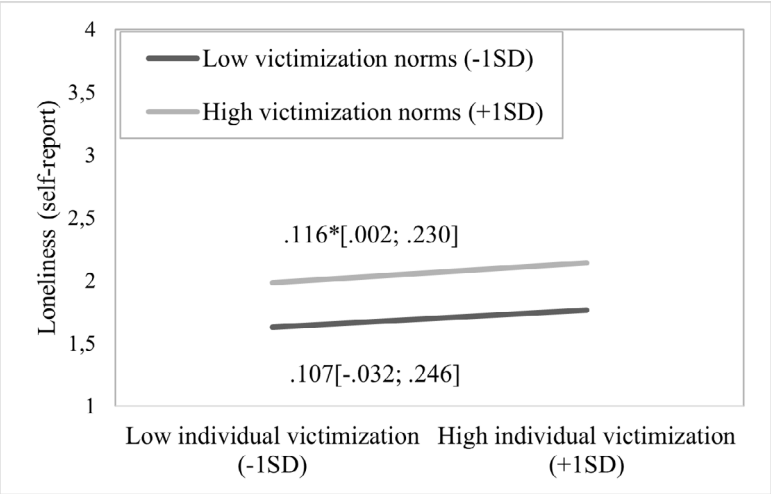


Figure 5c. Time 1 Self-reported Physical Victimization Predicting Time 2 Self-reported Loneliness at Low and High Levels of Classroom Self-reported Physical Victimization Norms (x').



Note. N=706; * p < .05; ** p < .001.

Longitudinal results

For self-reported physical victimization predicting self-reported loneliness, the best-fitting sub-model was the *contrast* sub-model ($\chi 2(4)=3.994$, p=.406; *RMSEA*=.000[.000;.057]; *CFI*=1; SRMR=.004). It involves paths (*a, b*) from 2 G-APIM predictor variables (*x* and *x'*). However, a and *b* are set to be equal but opposite of each other in effect direction, testing the assumption that victimization predicts loneliness relative to the descriptive classroom norms of victimization. Compared to alternative sub-models, the *contrast* sub-model had the lowest SABIC and RMSEA scores.

Table 9 and figure S11 depict the results for the *contrast* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization positively and Time 1 classroom descriptive victimization norms negatively predicted Time 2 self-reported loneliness. Individual victimization of the students and classroom victimization norms oppositely (higher victimization and lower victimization norms) predicted increases in individual loneliness.

A Follow-up Simple slope analysis with victimization predicting increased loneliness based on classroom descriptive victimization norms was performed. Figure 5c and supplemental table S15 present the results. Oppositely from what was expected, there was a statistically significant positive association between Time 1 peer-reported individual victimization to Time 2 conduct problems at high levels of classroom victimization norms (1 *SD* below the mean) (B=.116, p=.045) but not at low levels of victimization norms (1 *SD* above the mean) (B=.107, p=.132). These findings do not align with the misfit hypothesis. Considering that the effect sizes of victimization predicting are similar at both high and low levels of descriptive victimization norms and the interaction effect between individual victimization and classroom victimization norms is not significant (β=.026, p=.912) it is relatively safe to assume that self-reported physical victimization predicts increases in loneliness, regardless of similarly or dissimilarity to descriptive classroom norms.

Both concurrent and longitudinal results did not support the misfit hypothesis: discrepancy from classroom physical victimization norms did not predict loneliness.

Self-reported physical victimization predicted loneliness concurrently but not longitudinally.

Self-reported emotional symptoms

Concurrent results

The best fitting sub-model for self-reported physical victimization predicting emotional symptoms was the *main effects* sub-model ($\chi 2(3)=1.288$, p=.731; *RMSEA*=.000[.000;.045]; *CFI*=1; SRMR=.006). The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict emotional symptoms. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores.

Table S11 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 1 self-reported emotional symptoms. The more victimized students were the more emotional symptoms they experienced. Classroom descriptive victimization norms did not significantly predict self-reported emotional symptoms.

A Follow-up Simple slope analysis with self-reported physical victimization predicting emotional symptoms based on classroom descriptive victimization norms was performed. Figure S3d and supplemental table S19 present the results. There were no significant differences between the associations between victimization and emotional symptoms based on classroom descriptive victimization norms. The interaction term was not significant (β=-.392; p=.124). This does not confirm the misfit hypothesis concurrently.

Longitudinal results

For self-reported physical victimization predicting self-reported emotional symptoms, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=6.012$, p=.305; *RMSEA*=.017[.000;.057]; *CFI*=.998; SRMR=.012). This sub-model included only the autoregressive path (*k*) from Time 1 emotional symptoms to Time 2 emotional symptoms, but all the G-APIM variable paths (*a, b, c, d*) were set to 0. Compared to the alternative sub-models the *contrast* sub-model had the lowest SABIC but not the lowest RMSEA. However, because all the additional paths were not significant, the *empty model* was selected. This suggests that neither individual relational victimization, classroom descriptive victimization norms, nor the discrepancy from the classroom victimization norms, or homogeneity of the classroom victimization norm significantly predicts changes in self-reported emotional symptoms. These findings do not align with our hypothesis. Follow-up analyses were not performed for the empty model.

Both concurrent and longitudinal results did not support the misfit hypothesis: discrepancy from classroom physical victimization norms did not predict emotional symptoms.

Self-reported physical victimization predicted emotional symptoms only concurrently.

4.2.4. Self-reported relational victimization predicting self-reported conduct problems, delinquent behavior, loneliness, and emotional symptoms

Table S8 depicts the concurrent and Table 10 depicts the longitudinal model fit indices of the different G-APIM sub-models for self-reported relational victimization predicting self-reported conduct problems, delinquent behavior loneliness, and emotional symptoms.

Self-reported conduct problems

Concurrent results

The best fitting sub-model for self-reported relational victimization predicting conduct problems was the *main effects* sub-model ($\chi 2(3)=6.238$, p=.100; *RMSEA*=.039[.000;.083]; *CFI*=.988; SRMR=.019). The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict conduct problems. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores.

Table S12 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 1 self-reported conduct problems. The more victimized students were the more conduct problems they expressed. Classroom descriptive victimization norms did not significantly predict self-reported conduct problems.

A Follow-up Simple slope analysis with self-reported relational victimization predicting self-reported conduct problems based on classroom descriptive victimization norms was performed. Figure S4a and supplemental table S20 present the results. There was a stronger statistically significant positive association between Time 1 self-reported individual victimization and Time 1 conduct problems at low levels of classroom victimization norms (1 *SD* below the mean) (B=0.411, *p*=.000) than at high levels of victimization norms (1 *SD* above the mean) (B=0.305, *p*=.000) since the interaction term was significant (β=-.554; p=.021). In classrooms where victimization is less normative, victimization is more strongly associated with conduct problems, than in classrooms where victimization is more normative.

Longitudinal results

For self-reported relational victimization predicting self-reported conduct problems, the best-fitting sub-model was the *main effects* ($\chi 2(3)=1.265$, p=.737; *RMSEA*=.000[.000;.045]; *CFI*=1; SRMR=.004). It involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict conduct problems but does not assume the interrelation between the *a* and *b* paths. Compared to alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores. Therefore, the *main effects* sub-model was selected.

Table 11 and figure S12 depict the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 2 self-reported conduct problems. The more victimized students were at Time 1 the more their conduct problems increased at Time 2. Classroom descriptive victimization norms did not significantly predict self-reported conduct problems.

A Follow-up Simple slope analysis with victimization predicting increased conduct problems based on classroom descriptive victimization norms was performed. Figure 6a and supplemental table S16 present the results. There was a statistically significant positive association between Time 1 self-reported individual victimization to Time 2 conduct problems at low levels of classroom victimization norms (1 *SD* below the

mean) (B=.186, *p*=.000) but not at high levels of victimization norms (1 *SD* above the mean) (B=.035, *p*=.270). In classrooms where relational victimization is less normative, victimization is associated with conduct problems, whereas in classrooms where relational victimization is more normative, it is not. This further confirms that victimized children who are misfit to classroom norms (victimized more than descriptive norms) show increases in conduct problems, whereas children who do not diverge from classroom norms by being victimized, do not show increases in conduct problems.

Both concurrent and longitudinal results partially support the misfit hypothesis that victimized students in classrooms with lower relational victimization norms show higher levels of conduct problems.

Discrepancy from classroom victimization norms did not predict conduct problems or increases in conduct problems directly, however, follow up analysis suggests that concurrently conduct problems are predicted by victimization in classrooms with low victimization norms more than in classrooms with low victimization norms, whereas increases in conduct problems are predicted by victimization only in classrooms with low victimization norms.

Self-reported Delinquent behavior

Concurrent results

The best fitting sub-model for self-reported relational victimization predicting delinquent behavior was the *main effects* sub-model ($\chi 2(3)=2.703$, p=.439; *RMSEA*=.000[.000;.061]; *CFI*=1; SRMR=.018). The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict delinquent behavior. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores.

Table S12 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 1 self-reported delinquent behavior. The more victimized students were the more delinquent behavior they expressed. Classroom descriptive victimization norms did not significantly predict self-reported delinquent behavior.

A Follow-up Simple slope analysis with self-reported relational victimization predicting self-reported delinquent behavior based on classroom descriptive victimization norms was performed. Figure S4b and supplemental table S20 present the results. There was a stronger statistically significant positive association between Time 1 self-reported individual victimization and Time 1 delinquent behavior at low levels of classroom victimization norms (1 *SD* below the mean) (B=0.209, *p*=.000) than at high levels of victimization norms (1 *SD* above the mean) (B=0.123, *p*=.000), since the interaction term was significant (β=-.631; p=.026). In classrooms where victimization is less normative, victimization is more strongly associated with delinquent behavior than in classrooms where victimization is more normative.

Table 10. *Comparison of Longitudinal G-APIM models for individual-group similarity of self-reported physical victimization on self-reported: conduct problems, delinquent behavior, loneliness, and emotional symptoms.*

Outcome	Model fit indices	Empty	Main effects	Person-fit	Complete	Contrast	Similarity contrast	Full contrast
Conduct problems	SABIC	1225.76	**1217.877**	1220.426	1223.79	1219.118	1220.502	1221.715
	RMSEA	.056	**.000**	.000	.000	.026	.000	.032
	[95% CI]	[.026; .087]	**[.000; .045]**	[.000; .046]	[.000; .085]	[.000; .067]	[.000; .049]	[.000; .077]
Del. behavior	SABIC	528.69	511.887	509.495	510.693	508.631	**507.328**	504.105
	RMSEA	.087	.048	.012	.000	.038	**.000**	.000
	[95% CI]	[.059; .117]	[.005; .091]	[.000; .076]	[.000; .000]	[.000; .076]	**[.000; .000]**	[.000; .000]
Loneliness	SABIC	2239.198	2234.481	2237.345	**2234.686**	2231.231	2237.566	2234.315
	RMSEA	.061	.041	.054	**.000**	.031	.055	.004
	[95% CI]	[.032; .092]	[.000; .085]	[.005; .105]	**[.000; .063]**	[.000; .071]	[.009; .106]	[.000; .084]
Emotional symptoms	SABIC	1651.759	**1649.967**	1653.279	1655.584	1651.658	1652.635	1652.286
	RMSEA	.044	**.001**	.028	.027	.028	.019	.035
	[95% CI]	[.010; .077]	**[.000; .065]**	[.000; .085]	[.000; .108]	[.000; .068]	[.000; .079]	[.000; .079]

Note. N=706. Numbers in bold refer to the final models. SABIC = Sample Adjusted Bayesian information criterion; RMSEA = Root Mean Square Error of Approximation; G-APIM = group actor–partner interdependence model; Del. behavior = Delinquent behavior.

Longitudinal results

For self-reported relational victimization predicting self-reported delinquent behavior, the best fitting sub-model was *similarity contrast* ($\chi 2(2)=0.021$, p=.942; *RMSEA*=.000[.000;.000]; *CFI*=1; SRMR=.001). It involves paths (*a, b, c, d*) from all 4 G-APIM predictor variables (*x, x', i,* and *i'*) but the paths *c* and *d* are set to be equal but opposite to each other, checking the assumption that disruptiveness is highest for students who are discrepant from descriptive classroom norms while other students in the class are more homogenous. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA but not the lowest SABIC and the freed paths *c* and *d* were significant. However, the sub-model with the lowest SABIC was *full contrast* but it did not meet the requirement that in the *main effects* model, the effects of paths *a* and *b* had to be similar in size and in opposite directions. Therefore, the *similarity contrast* sub-model was selected.

Table 11 and figure S13 depict the results for the *similarity contrast* sub-model of G-APIM with 4 predictor variables. Time 1 discrepancy from classroom victimization norms and Time 1 classroom victimization homogeneity oppositely predicted Time 2 delinquent behavior. The more dissimilar students were to their peers on initial peer-reported victimization, and the more homogenous a classroom (excluding the focal individual) was in initial victimization, the more individual student delinquent behavior increased from Time 1 to Time 2. The discrepancy from descriptive classroom victimization norms predicts delinquent behavior more in classrooms where other students are less discrepant from one another, emphasizing the misfit hypothesis. Time 1 self-reported individual victimization (*x)* and Time 1 classroom descriptive victimization norms *(x')* did not significantly predict Time 2 delinquent behavior. Initial student victimization and initial classroom levels of victimization were unrelated to changes in delinquent behavior from Time 1 to Time 2.

A Follow-up Simple slope analysis with victimization predicting increased delinquent behavior based on classroom descriptive victimization norms was performed. Figure 6b and supplemental table S16 present the results. There was a statistically significant positive association between Time 1 self-reported individual relational victimization to Time 2 delinquent behavior at low levels of classroom victimization norms (1 *SD* below the mean) (B=.153, *p*=.000) but not at high levels of victimization norms (1 *SD* above the mean) (B=.063, *p*=.096). However, the interaction effect between individual victimization and classroom victimization norms was not significant (β=-.614, *p*=.172), suggesting caution in the interpretation of these results. In classrooms where victimization is less normative, victimization is associated with delinquent behavior, whereas in classrooms where victimization is more normative, it is not. This further confirms that victimized children who are misfit to classroom norms (victimized more than descriptive norms) show increases in delinquent behavior, whereas children who do not diverge from classroom norms by being victimized may be less inclined to delinquent behavior.

Both longitudinal and concurrent results partially support the misfit hypothesis that discrepancy from classroom relational victimization norms predict increases in

delinquent behavior.

Concurrent results partially support the misfit hypothesis: self-reported relational victimization predicts delinquent behavior more strongly in classrooms with low victimization norms than in classrooms with high victimization norms.

Self-reported loneliness

Concurrent results

The best fitting sub-model for self-reported relational victimization predicting loneliness was the *main effects* sub-model ($\chi 2(3)=6.213$, p=.101; *RMSEA*=.039[.000;.083]; *CFI*=.992; SRMR=.022). The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict loneliness. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores.

Table S12 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 1 self-reported loneliness. The more victimized students were the more loneliness they experienced. Classroom descriptive victimization norms did not significantly predict self-reported loneliness.

A Follow-up Simple slope analysis with self-reported relational victimization predicting loneliness based on classroom descriptive victimization norms was performed. Figure S4c and supplemental table S20 present the results. There were no significant differences between the associations between victimization and loneliness based on classroom descriptive victimization norms. The interaction term was not significant (β=.004; p=.986). This does not confirm the misfit hypothesis concurrently.

Longitudinal results

For self-reported relational victimization predicting self-reported loneliness, the best-fitting model was *complete* ($\chi 2(1)=0.065$, p=.799; R*MSEA*=.000[.000;.063]; *CFI*=1; SRMR=.008). It includes paths (*a, b, c, d)* from all 4 G-APIM predictor variables (*x, x', i, and i'*). Compared to the alternative sub-models, the *complete* sub-model did not have the lowest SABIC but had the lowest RMSEA. In all cases except when comparing to the *full contrast* sub-model the RMSEA differed by more than .15 and SABIC differed by less than 10 (Chen, 2007). The *full contrast* sub-model did not meet the requirement that in the *complete* sub-model, the paths *a* and *b (*from *i* and *i')* variables should be similar in size and in opposite directions, therefore the *complete* sub-model was selected.

Table 11. *G-APIM results from the best fitting sub-models: Self-reported relational victimization predicts self-reported: conduct problems, delinquent behavior, loneliness, and emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Conduct problems			
Main effects model			
Conduct problems (T1)	**.513**	**[.448; .578]**	**.000**
Individual Victimization (*x*)	**.133**	**[.061; .205]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.029	[-.033; .092]	.359
Outcome: Time 2 Delinquent behavior			
Similarity contrast			
Delinquent behavior (T1)	**.361**	**[.290; .431]**	**.000**
Individual Victimization (*x*)	.075	[-.035; .185]	.180
Classroom Descriptive Victimization Norm (*x'*)	-.008	[-.035; .071]	.847
Discrepancy from Classroom Victimization Norm (*i*)	**-.163**	**[-.276; -.051]**	**.005**
Classroom Victimization Homogeneity (*i'*)	**.092**	**[.029; .156]**	**.005**
Outcome: Loneliness (Self-report)			
Complete model			
Loneliness (T1)	**.450**	**[.373; .527]**	**.000**
Individual Victimization (*x*)	**.142**	**[.003; .253]**	**.013**
Classroom Descriptive Victimization Norm (*x'*)	**-.164**	**[-.285; -.044]**	**.007**
Discrepancy from Classroom Victimization Norm (*i*)	-.007	[-.116; .102]	.904
Classroom Victimization Homogeneity (*i'*)	**-.156**	**[-.279; -.032]**	**.014**
Outcome: Emotional symptoms (self-report)			
Main effects			
Emotional symptoms (T1)	**.615**	**[.562; .668]**	**.000**
Individual Victimization (*x*)	**.089**	**[.025; .153]**	**.007**
Classroom Descriptive Victimization Norm (*x'*)	.026	[-.033; .085]	.385

Note: N=706. All models include an autoregressive path (T1 of the outcome) and country as a covariate. In similarity contrast model i and i' paths are set to be equal but opposite of each other. Results significant at p<.05 in bold.

Figure 6a. Time 1 Self-reported Relational Victimization Predicting Time 2 Self-reported Conduct problems at Low and High Levels of Classroom Self-reported Relational Victimization Norms (x').

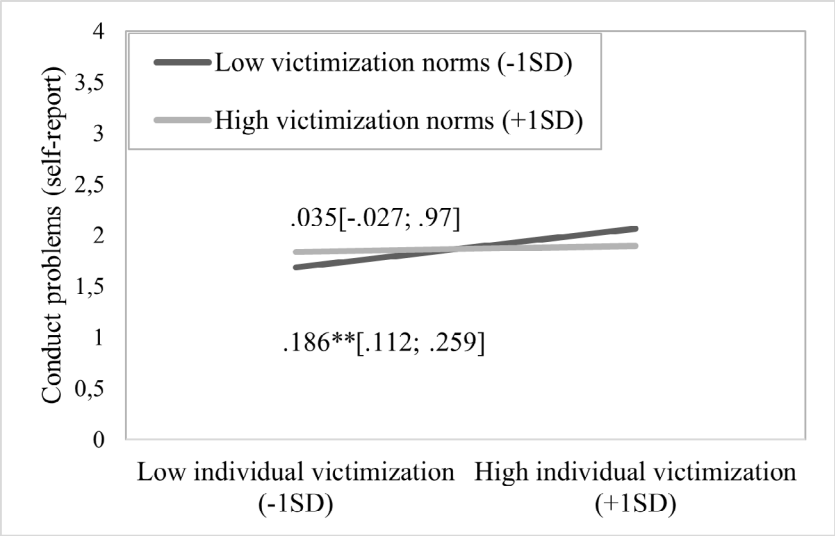


Figure 6b. Time 1 Self-reported Relational Victimization Predicting Time 2 Self-reported Delinquent behavior at Low and High Levels of Classroom Self-reported Relational Victimization Norms (x').

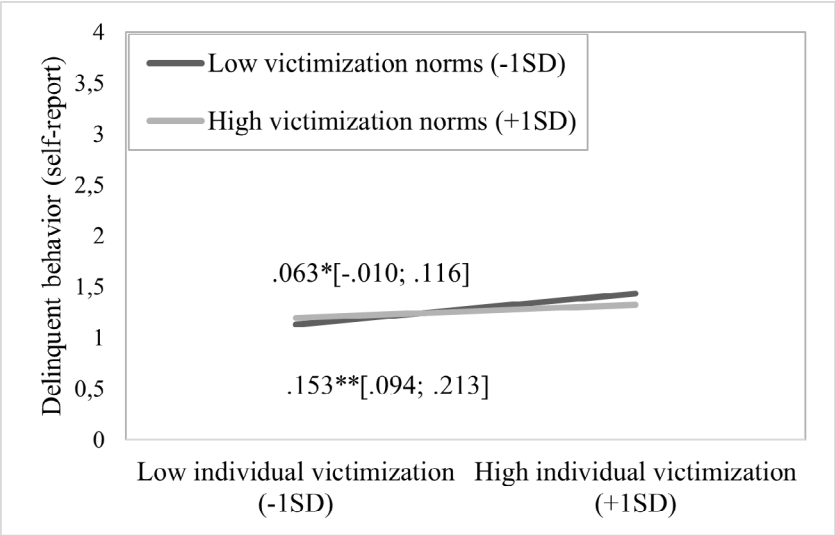


Figure 6c. Time 1 Self-reported Relational Victimization Predicting Time 2 Self-reported Loneliness at Low and High Levels of Classroom Self-reported Relational Victimization Norms (x').

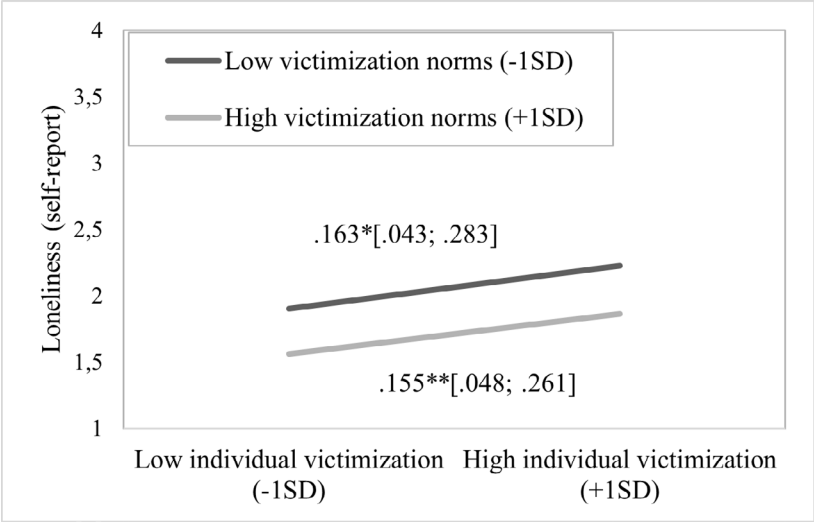
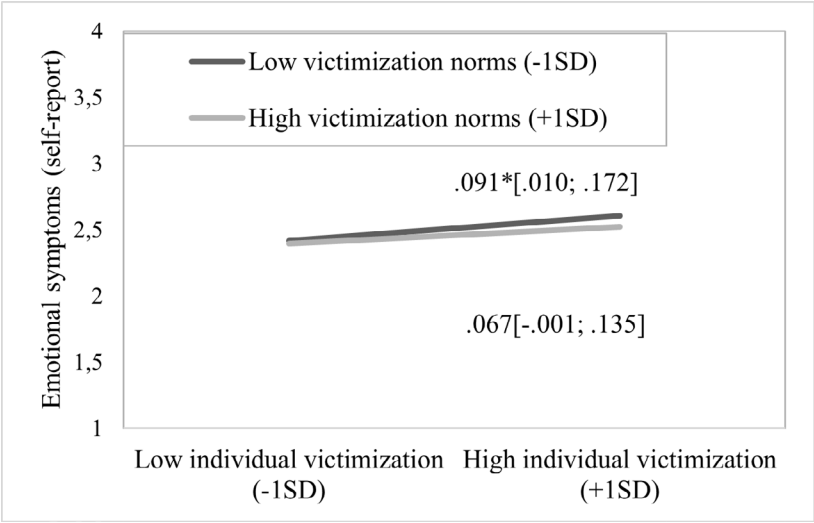


Figure 6e. Time 1 Self-reported Relational Victimization Predicting Time 2 Self-reported Emotional symptoms at Low and High Levels of Classroom Relational Victimization Norms (x').



Note. N = 706; * p < .05; ** p < .001.

Table 11 and figure S14 depict the results for the *complete* sub-model of G-APIM with 4 predictor variables. Time 1 individual self-reported relational victimization positively, and Time 1 classroom descriptive victimization norms negatively predicted Time 2 self-reported loneliness. Time 1 classroom victimization homogeneity (how similar other students in the class were to each other) negatively predicted increases in loneliness. Victimized students in classrooms with lower classroom victimization norms (excluding focal individual) and higher dissimilarity among other classmates at Time 1 are more likely to experience increased loneliness at Time 2.

A Follow-up Simple slope analysis with victimization predicting increased loneliness based on classroom descriptive victimization norms was performed. Figure 6c and supplemental table 16S present the results. There was a statistically significant positive association from Time 1 self-reported individual relational victimization to Time 2 loneliness at both low levels of classroom victimization norms (1 *SD* below the mean) (B=.153, *p*=.008) and at high levels of victimization norms (1 *SD* above the mean) (B=.155, *p*=.004). The interaction effect between individual victimization and classroom victimization norms was not significant (β=-.029, *p*=.920). These findings do not align with the misfit hypothesis, suggesting that self-reported relational victimization predicts loneliness regardless of classroom descriptive victimization norms.

Both concurrent and longitudinal results did not support the misfit hypothesis that higher discrepancy from classroom relational victimization norms predict loneliness or increases in loneliness.

Self-reported emotional symptoms

Concurrent results

The best fitting sub-model for self-reported relational victimization predicting emotional symptoms was the *main effects* sub-model ($\chi 2(3)$=5.830, p=.120; *RMSEA*=.037[.000;.081]; *CFI*=.987; SRMR=.021). The sub-model involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict emotional symptoms. Compared to the alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores.

Table S12 describes the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 1 self-reported emotional symptoms. The more victimized students were the more emotional symptoms they experienced. Classroom descriptive victimization norms did not significantly predict self-reported emotional symptoms.

A Follow-up Simple slope analysis with self-reported relational victimization predicting self-reported emotional symptoms based on classroom descriptive victimization norms was performed. Figure S4d and supplemental table S20 present the results. There was a stronger statistically significant positive association between Time 1 self-reported individual victimization and Time 1 emotional symptoms at low levels of classroom victimization norms (1 *SD* below the mean) (B=0.319, *p*=.000) than at high

levels of victimization norms (1 *SD* above the mean) (B=0.161, *p*=.000), since the interaction term was significant (β=-.761; p=.002). In classrooms where victimization is less normative, victimization is more strongly associated with emotional symptoms than in classrooms where victimization is more normative.

Longitudinal results

For self-reported relational victimization predicting self-reported emotional symptoms, the best-fitting sub-model was the *main effects* ($\chi 2(3)=3.206$, p=.361; R*MSEA*=.001[.000;.065]; *CFI*=1; SRMR=.007). It involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict emotional symptoms, but does not assume the interrelation between the *a* and *b* paths. Compared to alternative sub-models, the *main effects* sub-model had the lowest RMSEA and SABIC scores. Therefore, the *main effects* sub-model was selected.

Table 11 and figure S15 depict the results for the *main effects* sub-model of G-APIM with 2 predictor variables. Time 1 individual victimization predicted Time 2 self-reported emotional symptoms. The more victimized students were at Time 1 the more their emotional symptoms increased at Time 2. Classroom descriptive victimization norms did not significantly predict self-reported emotional symptoms.

A Follow-up Simple slope analysis with victimization predicting increased emotional symptoms based on classroom descriptive victimization norms was performed. Figure 6e present the results. There was a statistically significant positive association between Time 1 self-reported individual victimization to Time 2 emotional symptoms at low levels of classroom victimization norms (1 *SD* below the mean) (B=.091, *p*=.027) but not at high levels of victimization norms (1 *SD* above the mean) (B=-.067, *p*=.053). In classrooms where physical victimization is less normative, victimization is associated with emotional symptoms, whereas in classrooms where relational victimization is more normative, it is not. However, the interaction effect between individual victimization and classroom victimization norms was not significant (β=-.103, *p*=.655), suggesting caution in such interpretation of these results This further confirms that victimized children who are misfit to classroom norms (victimized more than descriptive norms) show increases in emotional symptoms, whereas children who do not diverge from classroom norms by being victimized, do not show increases in emotional symptoms. However, both at high and low levels of classroom victimization norms the effect size is relatively similar, suggesting that the findings should be taken with hesitancy.

Longitudinal results did not support the misfit hypothesis. Higher discrepancy from classroom relational victimization norms did not predict increases in emotional symptoms.

Concurrent results partially supported the misfit hypothesis, whereas self-reported relational victimization predicted emotional symptoms more strongly in classrooms

with low victimization norms, but not high victimization norms.

4.3. Summary of the main findings

This summary of the main findings will only focus on the misfit hypothesis which suggests that higher discrepancy from classroom victimization norms predicts adjustment problems concurrently and longitudinally.

Discrepancy from peer-reported physical victimization predicted externalizing problems, namely disruptiveness and Physical aggression concurrently as well as increases in mentioned variables from Time 1 to Time 2. It did not predict internalizing symptoms concurrently or changes in them longitudinally. This confirms the misfit hypothesis regarding physical victimization for externalizing but not internalizing problems.

Discrepancy from peer-reported relational victimization predicted only longitudinal changes in loneliness, suggesting that being more victimized than one's classmates increases loneliness over time. Results, however, did not replicate through follow-up analyses. Discrepancy from peer-reported relational victimization did not predict externalizing problems or emotional symptoms either concurrently or longitudinally.

Discrepancy from self-reported physical victimization predicted externalizing problems namely disruptiveness and Physical aggression concurrently as well as increases in mentioned variables from Time 1 to Time 2. It did not predict internalizing symptoms concurrently or changes in them longitudinally. This confirms the misfit hypothesis for externalizing but not internalizing problems.

Discrepancy from self-reported relational victimization predicted delinquent behavior concurrently as well as increases in it longitudinally, this supports the misfit hypothesis. Follow-up analyses also suggest that self-reported relational victimization predicts conduct problems both concurrently and increases in it longitudinally at low levels of classroom victimization, but not at high levels of classroom victimization, partly supporting the misfit hypothesis. Concurrent findings also indicated that self-reported relational victimization more strongly predicts emotional symptoms at low victimization classroom norms than at high classroom victimization norms, partially supporting the misfit hypothesis.

4.4. Supplemental analysis

4.4.1. Multiple group analysis

Finally, to check for potential differences in patterns of associations between boys and girls, primary school and secondary school students, and students from Lithuania and the USA, multiple group analysis was performed. We compared a fully constrained model (all regression paths set equal for both groups) with models where a single path is released. Since different models had different group comparisons, different Bonferroni corrections were applied accordingly based on the number of paths.

For peer-reported physical and relational victimization using some models did not converge in MPLUS. To solve this problem, square root values of *i* and *i'* variables were used instead to compare the paths.

No significant gender differences were found after applying the Bonferroni correction. Additionally, for primary and secondary school students no differences were found as well.

Two differences also emerged between Lithuanian and USA samples (samples only included primary school students from USA and Lithuania). The *person fit* submodels for Peer-reported physical victimization predicting peer-reported physical aggression differed significantly ($\Delta\chi2$ (4) = 9.777; p = .044). Peer-reported individual physical victimization predicting peer-reported physical aggression differed for Lithuanian and USA school students ($\Delta\chi2$ (1) = 5.754; p = .016). Victimization significantly predicted changes in physical aggression for students from the USA (β=-.151; p=.041), but not for Lithuanian (β=.057; p=.431) school students. However, since this path was not significant in our main model, this difference only adds to the model but does not change the original findings. Additionally, there were significant differences for self-reported physical victimization predicting self-reported loneliness for Lithuanian and USA school students ($\Delta\chi2$ (1) = 6.494; p = .011). Victimization significantly predicted changes in loneliness for USA (β=.227; p=.000), but not for Lithuanian (β=-.047; p=.431) school students.

5. DISCUSSION

In this longitudinal study, we tracked a sample of 706 early adolescents spanning 39 classrooms from Lithuania and the United States across one academic year. We utilized both self-report and peer-report measures to evaluate physical and relational victimization, classroom victimization norms, and discrepancies from classroom victimization norms. Subsequently, we assessed the implications of these factors on several externalizing problems (peer-reported disruptiveness, physical aggression, self-reported conduct problems, and delinquent behavior) and internalizing outcomes (self-reported loneliness and emotional symptoms). The group-actor partner interdependence model (G-APIM) served as our framework, enabling the exploration of individual victimization (how victimized one is) in context with classroom victimization norms (average levels of victimization in one's classroom), pupils' deviations from these norms (how dissimilar one is to the average norms of victimization in the classroom), and classroom victimization homogeneity (how similar one's classmates are to each other in terms of being victimized).

This is the first longitudinal study to test the association between the discrepancy from classroom victimization norms (healthy context paradox) and externalizing symptoms in a classroom setting. The results partly aligned with our hypothesis: discrepancies from classroom victimization norms were found to be predictive of socioemotional challenges concurrently and over time, even though not all hypotheses were confirmed. Drawing from the theories of person-group dissimilarity (Wright et al., 1984) and the concept of "social misfits", longitudinal findings of this study reveal that significant deviations from classroom victimization norms forecast an uptick in both externalizing (disruptiveness, physical aggression, conduct problems, delinquent behavior) and internalizing problems (loneliness, but not emotional symptoms). This suggests a potential sense of rejection, social strain, and blame externalization for students who experience victimization in settings where it is less common. Notably, different patterns of significant results emerged for physical and relational victimization and peer and self-reported data.

Discrepancy from physical victimization classroom norms

Concurrently and longitudinally both peer and self-reports of physical victimization discrepancies from classroom norms were linked to an increase in externalized problems. This was evident in peer-reported disruptiveness and physical aggression, as well as in self-reported delinquent behavior and conduct problems. This confirms a novel finding in the field of healthy context paradox, that discrepancy from physical classroom victimization norms is associated with externalizing problems. Notably, our findings did not reveal significant associations between deviations from physical victimization classroom norms and internalizing symptoms, hence it did not confirm previous findings that discrepancy from physical victimization is associated with internalizing problems.

Discrepancy from relational victimization classroom norms

The results regarding relational victimization presented fewer significant relationships. Concurrent findings indicated that discrepancy from peer-reported relational victimization classroom norms was not associated with internalizing or externalizing problems, whereas longitudinal findings indicated that discrepancy from relational classroom victimization norms was associated with increased feelings of loneliness. Additionally, longitudinal findings showed that deviations from classroom norms for self-reported relational victimization were linked to an uptick in self-reported delinquent behavior. Further supplemental analyses unveiled a nuanced scenario. Concurrent follow-up analyses revealed that self-reported relational victimization predicts conduct problems, delinquent behavior, and emotional symptoms more strongly in classrooms with low relational victimization norms. Additionally, longitudinal findings show that relational victimization predicted increases in emotional symptoms and conduct problems solely in classrooms that exhibited low victimization norms, not high victimization norms.

Overview of the findings

Overall, the results of this study provide a partial confirmation of our initial hypotheses, aligning with findings from Casper & Card (2017) whose meta-analysis proposed that physical victimization predominantly correlates with externalizing symptoms, while relational victimization leans more towards internalizing symptoms, although with more limited support. Our findings showed that discrepancy from both self and peer-reported physical victimization norms is predictive of externalizing problems concurrently and with increases of externalizing problems over time. These findings are the novelty of this study. This implies that the form of victimization plays an intricate role and research should be more inclined to look at different victimization types and their outcomes separately.

The findings regarding the association between being a victimized social misfit and internalizing problems were less pronounced. Contrary to expectations, the discrepancy from physical or relational classroom norms did not predict internalizing problems (loneliness or emotional symptoms) concurrently. Longitudinal findings showed only one association, between discrepancy from peer-reported relational victimization and increases in loneliness. The overarching impact of the COVID-19 epidemic might influence the less pronounced results concerning internalizing problems. A widespread surge in internalizing symptoms across the general population could be observed during this period (Bernasco et al., 2021; Hyland et al., 2021). Given this context, our reliance on self-reported metrics for internalizing symptoms could potentially mask the nuanced associations between victimization discrepancies and outcomes of interest. The pervasive effects of the pandemic might mean that an extensive proportion of respondents, not just those subjected to victimization, reported elevated levels of emotional symptoms and loneliness. This context is crucial when interpreting the depth and implications of our findings.

This study is not the first to express the notion of associations between victimization

and socioemotional maladjustment (Olweus, 2013; Kim et al., 2006; Ostrov 2010). This is also not the first study to identify that lower descriptive classroom norms of victimization are associated with increased adjustment problems for remaining victimized students. The present study builds on a growing area of research focused on the "healthy context paradox" originating from person-group dissimilarity theory (Garandeau & Salmivalli, 2019; Sentse et al., 2007). This paradox highlights that anti-bullying efforts, while beneficial overall, may inadvertently disadvantage victims in contexts where bullying becomes atypical. These victimized "social misfits" face rejection and increased maladjustment compared to victims in higher-bullying settings (Huitsing et al., 2019). While reviewed research was quite convincing for internalizing symptoms (Pan et al., 2021), even though it did not replicate fully in our findings, for externalizing problems the literature was much scarcer. Only one recent study from China was found to describe it in the classroom context. Their cross-sectional study explored the healthy context paradox and found that victimization predicts conduct problems more in classrooms with low victimization norms than in classrooms with high victimization norms (Liu et al., 2021). Nevertheless, Liu et al.'s (2021) cross-sectional approach does not validate the association of victimization with shifts in conduct problems over time. Another study by Zhao & Li (2022) employed student social cliques as the unit of analysis instead of classrooms, yielding significant longitudinal results for self-reported data but not for peer-reported data, thereby hinting at a potential shared reporter variance bias. This study is the first to look at longitudinal findings of healthy context paradox associations with externalizing symptoms in the context of the classroom.

Our findings meaningfully extend the healthy context paradox from internalizing to externalizing problem realms. This highlights important considerations for fostering inclusion and promoting resilience in children who feel unfairly victimized. In this discussion, we explore the findings in the context of various other research and theoretical considerations in more detail.

5.1. Preliminary analysis

5.1.1. School level differences (Primary vs secondary school)

Emotional symptoms and school level

Within our findings, it is essential to first spotlight the preliminary results. The initial findings show that students from primary school show higher levels of emotional symptoms than their secondary school counterparts. There could be a complex association at play here. If we were to look at the context of COVID-19, which was still prevalent during the time this research was conducted (Autumn 2021 and Winter 2022) a meta-analysis on the pandemic effects on young adolescent's emotional well-being shows opposite findings, suggesting that older, secondary school children experienced higher levels of depressive symptoms than younger, elementary school children (Deng et al., 2023). Thus another explanation for our findings could be beneficial.

A meta-analysis that investigated internalizing symptoms of youth finds a tendency

for self-reported internalizing problems to decrease with age, even if not always significantly (Hatoum et al., 2018). In contrast, in analyses that investigate the perceptions rendered by parents or educators, this trend assumes a more nebulous form and shows no clear tendency (Keiley et al., 2000). Mother reports of emotional symptoms reveal increases throughout childhood and early adolescence (Davis et al., 2015). These contradicting findings based on reporters, hint at a possibility — as students mature, they may undergo a transformation in the depths of their self-perception, diminishing the intensity with which they discern their internal struggles. Although no direct research was found to support these findings, studies suggest that children's emotional knowledge can partially explain variance in their emotional symptoms during their adolescence (Fine et al., 2003). The longitudinal findings of this study indicate a persistent theme. Emotional symptoms exhibited a declining trajectory for primary school pupils yet remained relatively stable for their secondary school counterparts. This suggests a potent implication: emotional outcomes in primary students might be more fluid and susceptible to shifts.

Victimization and school level

In line with expectations and aligning with recent meta-analytic findings (Oncioiu et al., 2020), our study discerned higher levels of physical victimization among primary school students compared to their secondary school counterparts. This trend seems to corroborate the assertion that as students traverse the journey of maturity, there's an observable drift away from physical aggression. Notably, prior research (Underwood et al., 2009) posits that physical aggression metamorphoses into relational victimization, rather than merely waning. Contrarily, in our study, both self and peer-reported relational victimization were more pronounced among primary school pupils. This finding could partially be explained by the findings of Geoffroy et al. (2018), which notes that while severe victimization may subside over time (meaning that fewer students experience severe victimization as students get older), low-level victimization (non-severe victimization) persists at the same rate. The decrease in severe victimization could be why results show a decrease in both physical and relational victimization in our findings. While our data might not have directly shown this transition, it could be an underlying effect.

One might speculate that the environment of primary schools, occasionally more tumultuous, can be a place for increased physical confrontations and victimization. As children mature, the nature of victimization might metamorphose, narrowing its focus onto social outliers rather than perpetuating a pervasive cycle of everyone targeting everyone. This perspective is bolstered by our longitudinal observations that indicate declining rates of physical victimization for primary school students over an academic year - a trend not mirrored in secondary schools. Perhaps, as primary school students inch towards greater maturity and encounter a more harmonized classroom environment (Giesbrecht et al., 2011), incidents of physical victimization attenuate. Supporting this theory, studies have postulated that a reduction in physical victimization paves the way for an escalation in relational victimization for primary students (Salmivalli & Kaukiainen, 2004). Intriguingly, in our study, this relational victimization tapered for

secondary students. A plausible hypothesis is that as social dynamics solidify over the course of the school year, victimization attenuates, becoming more laser-focused on the social outliers (Witvliet et al., 2009).

5.1.2. Gender differences

Gender and internalizing symptoms

Some gender differences surfaced in our study. Specifically, girls exhibited higher scores in measures of loneliness and emotional symptoms relative to boys. These outcomes, though anticipated, are not easy to explain. The academic discourse on the relationship between loneliness, gender differences, and age presents a diverse array of findings. For instance, a meta-analysis specifically focused on the loneliness experienced by adolescents discerned no consistent gender variances across different age brackets (Maes et al., 2019). Adding a layer of complexity, Salo et al.'s (2020) longitudinal examination of young adolescents' disentangled types of loneliness, revealing that girls predominantly grapple with social loneliness, whereas boys more frequently experience emotional loneliness.

One potential lens through which these results can be interpreted underscores the propensity of girls to articulate and recognize their emotional states—a notion supported by previous empirical studies (Maguire et al., 2016). Such an inclination might enable them to more readily identify and report feelings of loneliness and emotional symptoms. A parallel sentiment can be applied to internalizing symptoms, as extant literature, like the meta-analysis on internalizing symptoms by Pinquart (2017), indicates their heightened prevalence in girls during school years. Hence, while it remains a relative speculation, higher loneliness expressed by girls may be due to their ability to recognize these feelings more readily.

Gender and externalizing problems

Echoing a vast body of previous research (Schwartz et al., 2001), our results reaffirm that boys exhibit a greater proclivity towards delinquent behaviors, disruptiveness, physical aggression, and victimization. Historically, boys have been observed to possess heightened physical activity levels and frequently channel their emotional states into more disruptive or aggressive expressions - trends that our findings reinforce. Interestingly, in our study, relational victimization was observed to be higher among boys, a result somewhat counterintuitive given past studies that argue to the contrary (Dukes et al., 2010). However, reinforcing our observation, a cross-cultural literature analysis by Smith et al. (2019) suggested a higher predilection of boys toward victimization in general. This male tendency could be rooted in their inclination to indulge in name-calling and overt expressions of dissatisfaction. With a potentially subdued empathy, boys may exhibit a reluctance to integrate peers into their circles and reject them (Landazabal, 2009).

Delving into the longitudinal changes of the parameters, gender differences remained elusive, with the exception of physical victimization, which showed a decrease

among boys. Given that girls initially showcased considerably minute levels of physical victimization, the progression of time and maturation arguably wielded an inconsequential influence on them.

5.1.3. Location differences

Our study also compared variables and changes in variables between Lithuanian and USA students. The data unveils that primary school students from the USA report higher levels of loneliness, internalizing symptoms, and disruptiveness in comparison to their Lithuanian primary school counterparts. The reasons underpinning these disparities are intricate, and the existing body of research offers limited insight to elucidate these divergences. Given the absence of significant variations across time in these variables between Lithuanian and USA students, it would be prudent to exercise caution before delving deeper into these findings. Future research might be necessary to unpack these cross-cultural nuances more thoroughly.

5.2. Physical victimization and externalizing problems

The novelty of this study was its inquiry into the association between being a victimized social misfit and externalizing problems. For both concurrent and longitudinal associations between the discrepancy from peer-reported physical victimization norms and peer-reported disruptiveness and physical aggression, the findings are consistent with the hypothesis of this study. Children who were more discrepant from their classmates in their initial peer-reported levels of victimization (social misfits) at the beginning of the year, exhibited higher levels of peer-reported physical aggression and disruptive behavior and were more likely to increase this misbehavior later in the year. This indicates that the crux of the issue is not victimization in itself but rather the experience of being an outlying victimized individual, which correlates with subsequent behavioral issues.

The same pattern of significant results emerged when examining the associations between self-reported physical victimization and self-reported externalizing symptoms (conduct problems and delinquent behaviors). In both cases, higher discrepancy from the classroom norm of physical victimization was associated with higher delinquent behavior and conduct problems concurrently and increases in them across the school year. Collectively, these insights underscore that it's the deviation from the physical victimization norm, rather than victimization per se, that portends an escalation in behavioral problems. This hypothesis gains further validation from a confirmatory simple slope analysis, which reveals that victimization's association with behavioral problems is substantial in classrooms with a low prevalence of victimization but becomes inconsequential in classrooms where high levels of physical victimization are the norm.

The longitudinal findings of the study also revealed that students in classrooms with more homogenous peers in terms of peer-reported physical victimization were

more prone to increases in disruptiveness and conduct problems. This suggests that more diversity in terms of victimization in the class is associated with lower levels of behavioral problems in victimized youth.

There are several key considerations to be deliberated upon in interpreting these findings. Central among these is understanding the underpinning mechanism of the observed association. Firstly, from the vantage of an individual child who is victimized, the experience of being unduly targeted cultivates perceptions of unjust treatment. This, in turn, can foster feelings of anger and develop a hostile attribution bias—both of which have established ties to externalizing problems (Perren et al., 2013; Kaynak et al., 2015). In scenarios where pupils find themselves as isolated targets, or among a scant few subjected to negative peer treatment, the avenues for perspective are limited. Lacking a community of fellow victims to compare themselves with, these children inevitably engage in upward social comparison as posited by Festinger's theory (1954). In this context of comparison, children grapple with understanding the rationale behind such maltreatment and strive to bridge the gap between their experiences and the experiences of their peers.

Victimized social misfits have to decide where to place the blame for the maltreatment and isolation. Is the onus placed internally, attributing the cause to own personal factors, or is it externalized, faulting others? Children with an inherent aggressive disposition (Kaynak et al., 2015) are more likely to confront maltreatment reactively, manifesting as physical aggression. In a similar vein, if peers are perceived as hostile and the blame is attributed towards the aggressors, the victimized children often resort to defensive aggression as a coping mechanism (Liu et al., 2021).

Yet another lens through which to contemplate the association between externalizing symptoms and discrepancy from victimization norms is the person-group dissimilarity model. This paradigm posits that individuals deviating markedly from the group norm—or social misfits—are less favored by their peers (Wright et al., 1984). Such social misalignment may render them less appealing as social associates, thus complicating their pursuit of durable friendships (Deptula & Cohen, 2004). Additionally, advocating for or allying with these 'misfits' might be perceived as jeopardizing one's own social standing, leading to further isolation (Laninga-Wijnen et al., 2021). The feedback loop here is a perilous one: data indicates that students facing rejection are susceptible to heightened victimization, stemming from their diminished social backing. With fewer allies prepared to rally in their defense, their quandaries are magnified (Veenstra et al., 2013). In the absence of robust social ties, the acquisition of pivotal social skills, especially those essential for navigating the tumultuous terrains of victimhood strategically, becomes challenging. Resorting to aggression as a knee-jerk reaction can inadvertently fuel further bullying, thereby ensnaring the student in a vicious cycle (Reijntjes et al., 2011). Students who are socially marginalized face greater difficulties due to their behavioral problems (Sentse et al., 2007).

Moreover, innate characteristics, like emotional reactivity or heightened sensitivity, may critically influence a student's response to victimization, and discern whether they are inclined toward assertive or subdued reactions (Sugimura & Rudolph, 2012).

Students exhibiting heightened reactive tendencies might be predisposed to aggressive retaliations, especially in contrast to their peers possessing superior emotional restraint.

Given individual propensities and the inherent reciprocity between victimization and behavioral issues, it's salient to consider the role of the specific type of victimization. As in our case, resonating with prior meta-analytic conclusions, physical victimization is a more potent predictor of externalizing challenges compared to relational victimization (Casper & Card, 2017). Furthermore, heightened externalizing symptoms are indicative of an increased vulnerability to victimization (Georgiou et al., 2021). However, we found no previous literature that would confirm that behavioral problems are predictive of specifically more physical victimization, not in combination with relational victimization. Regardless, this interplay delineates a potential cyclical pattern of behavioral dysregulation and physical victimization.

The ramifications of externalizing behaviors are discernible, with peers generally averse to aggressive individuals, more so if such aggression deviates from accepted classroom popularity standards (Laninga-Wijnen et al., 2020). This dynamic poses a pronounced dilemma for those children with diminished capacity for aggression regulation (Kaynak et al., 2015), entrapping them in a self-sustaining cycle. Their reaction to victimization, characterized by aggression, ironically serves as a magnet for further victimization.

Extricating oneself from this cycle becomes increasingly difficult, especially in light of social information processing patterns. With successive victimization episodes, these children develop a propensity to recognize, and potentially overgeneralize, signs of victimization, even in ambiguous contexts. This perceptual distortion can prompt defensive, aggressive responses in situations where they're unwarranted (Burgess et al., 2006). Essentially, they're primed to detect and react to perceived injustices, even in their absence. This phenomenon encapsulates the essence of a 'self-fulfilling prophecy' (Loeb et al., 2016). The child perceives a benign interaction as threatening and retaliates with aggression. This unprovoked aggression then garners a genuine retaliatory response from peers, cementing the child's initial distorted perception of the social landscape.

Potential explanations of why a victimized social misfit resorts to delinquent behavior could be partially explained by the general strain theory (Agnew, 2001). This theoretical perspective postulates that individuals resort to deviant or criminal behaviors as a reaction to the pressures or strains they encounter. In the context of victimized children, this strain emanates from the inequitable treatment meted out to them, culminating in feelings of frustration, anger, and despair. Being labeled as a social misfit in the school environment naturally estranges these children from affirmative peer relationships. The resultant emotional reaction often engenders a desire to circumvent the source of distress. In this instance, avoidance manifests as truancy, where children intentionally skip school to eschew the recurrent feelings of rejection and victimization. Baskerville (2021) posits that the classroom, perceived as a hostile environment by these children, becomes an entity they want to distance themselves from. However,

evading school doesn't translate to evading the emotional fallout of their experiences. Within the perspective of general strain theory (Agnew, 2001), truants as they miss school still grapple with unresolved feelings, compounded by the lack of appropriate avenues for releasing them. This emotional dissonance, in many cases, finds an outlet in acts of delinquency such as vandalism, theft, or other forms of antisocial behavior. Without a specific target to vent their frustrations upon, these children might redirect their suppressed emotions toward illicit activities, which, while providing momentary relief, ensnare them in a cycle of negative behaviors and consequences (Yu & Chan 2019).

The influence of classroom victimization norms on student behavior underscores the intricate dynamics within educational settings. Confirming the social misfit hypothesis, students who feel out of place in classrooms with homogenous behavioral standards often display heightened disruptiveness. This is particularly evident when they perceive themselves as being treated differently from their peers, leading to feelings of hostility as noted by Liu et al. (2021). This frustration may not only be directed at peers but can also manifest as resentment towards the broader school environment, including faculty. Such disruptive tendencies might not merely be acts of rebellion; they can be indicative of deeper emotional struggles. For instance, consistent victimization can lead to behaviors that are essentially cries for help (Achenbach et al 2016). Further complicating matters, students may begin to internalize the roles they feel are ascribed to them. Individuals often gravitate towards behaviors that align with their perceived roles (Turner & Reynolds 2011). Thus, if consistently labeled as 'troublemakers' or 'outcasts', students might adopt disruptive or even violent behaviors. This adaptive behavior only exacerbates the challenges faced by both educators and students in creating a conducive learning environment (Huitsing et al., 2012).

In terms of higher-class homogeneity predicting increases in externalizing problems of victimized social misfits, this finding suggests that variation around the group norm also plays a role. This is the first study to test this association, thus there are limited resources to compare it with, however previous literature suggests that group identification and cohesion are higher amongst homogenous groups (Hogg, 1993), and being a social misfit in a homogenous group may be associated with negative effects (Wright et al., 1984). In other words, being a victimized social misfit may be more pronounced when the majority of classmates are more similar to each other.

In essence, the disparities between peer-reported and self-reported physical victimization data suggest that environments play a crucial role in students' behavioral outcomes. The analysis reveals that students who experience victimization in classrooms with lower rates of victimization are more susceptible to exhibiting aggressive and disruptive behaviors than those in classrooms with higher victimization norms. This dynamic highlights the detrimental effects of feeling alienated or different from the majority. As outlined by Wright et al. (1984), students who stand out from their peers often face greater rejection, which further heightens their risk of victimization. This cycle is further exacerbated as these singled-out students, in their distress, may resort to destructive responses, a pattern noted by Kaynak et al. (2015). The classroom

environment, therefore, plays an important role in either mitigating or amplifying the association between victimization and student behavior.

5.3. Physical victimization and internalizing symptoms

For the association between peer and self-reported physical victimization and internalizing symptoms, a slightly different story emerged as the hypotheses of this study were not confirmed. Neither discrepancy from peer-reported physical victimization norms nor discrepancy from self-reported physical victimization norms significantly predicted either of the internalizing symptom variables (emotional symptoms or loneliness) either longitudinally or concurrently. When examining the best-fitting sub-models in this study using self-reported measures, discrepancies from classroom victimization norms didn't enhance the explanation of the data. The absence of these relationships could partially be attributed to a limitation in the study. Relying solely on self-reported measures for internalizing symptoms might not capture the complete picture, possibly skewing the results. The lack of findings could also be partly attributed to the potential impact of Covid-19. As the majority of children were potentially already with heightened emotional symptoms (Bernasco et al., 2021) and loneliness (Ernst et al., 2022), the symptoms experienced by victims may camouflage amongst increased internalized problems in other children. Regardless, some findings did emerge. Concurrent results showed that classroom victimization norms are associated with higher levels of emotional symptoms, hence partly supporting the idea, that the healthy context is indeed healthy for the non-victimized (Huitsing et al., 2019). Additionally, as could be expected, physical victimization did predict loneliness and emotional symptoms. Longitudinal findings showed that peer-reported physical victimization classroom norms and classroom homogeneity predicted increases in emotional symptoms. Additionally, self-reported physical victimization and classroom victimization norms significantly predicted increases in loneliness. Generally, this suggests that individual experiences and the overarching classroom culture played a more substantial role than the deviation from the norm.

Interestingly, though our results were not what was anticipated, they are somewhat in line with existing research trends. Previous studies have found that physical victimization often ties more closely with externalizing symptoms, while relational victimization links more with internalizing symptoms (Casper & Card, 2017). Furthermore, there's a documented tendency for effects from peer-reported victimization to be more pronounced than self-reported effects (Casper & Card, 2017; Christina et al., 2021). Yet, it's crucial to recognize that in this study, all our measured aspects of internalizing symptoms, namely loneliness and emotional symptoms, were gauged solely through self-reports. As correlations between self-report and peer-report items are typically lower than correlations between items from the same source, this could also have influenced the findings.

Higher levels of descriptive classroom victimization norms and higher homogeneity of the class (classmates being more similar to each other in terms of victimization)

were associated with increases in emotional symptoms. The nuances of emotional symptoms as identified in this study contrast with some prior research (Huitsing et al., 2012), which postulated that students within classrooms characterized by lower descriptive norms might experience heightened emotional symptoms, perhaps stemming from guilt associated with observing socially marginalized peers. On the other hand, a meta-analysis suggests that bullying interventions that decrease the general levels of victimization, do create a healthier context, suggesting that non-victimized students in classrooms with lower victimization norms experience lower internalizing symptoms (Guzman-Holst et al., 2022). Our findings align with this perspective and underscore a scenario where a pronounced prevalence of physical victimization, and a consequent homogeneity among the students in this context, is associated with escalated emotional symptoms. These observations resonate with the findings of other studies which posit that mere observations of victimization correlate with amplified internalizing symptoms (Midgett et al., 2021). Such patterns accentuate the multifaceted nature of the relationship between classroom norms and individual victimization experiences. Notably, children navigating educational settings marked by prevalent discord among peers, where conflicts seem ubiquitous, are more susceptible to emotional disturbances. This heightened sensitivity might be ascribed to the inherent anxiety students grapple with when confronted by bullying situations, contemplating between intervention and passive observation. These are social scenarios rife with stressors that may increase internalizing symptoms (Doumas et al., 2023). Amidst classrooms echoing heightened physical aggression, even those students who remain unscathed by direct violence find themselves ensnared in a tumultuous environment that may provoke negative emotional outcomes.

In partial congruence with prior studies, particularly those observing younger adolescents, it was found that physical victimization is concomitant with internalizing problems (Fite et al., 2019). Findings from this study suggest that both self-reported victimization and lower classroom descriptive victimization norms significantly predict loneliness. However, they do not necessarily predict fluctuations in emotional symptoms, a deviation potentially owing, in part, to residual effects from the COVID-19 pandemic. This overarching trend dovetails with the broader theoretical stance that physical victimization tends to be more closely knitted with externalizing rather than internalizing symptoms (Casper & Card, 2017). However, supplemental simple slope analysis broadened the picture. Self-reported victimization significantly predicts an uptick in loneliness, but only when classroom victimization norms are low. This correlation diminishes when these norms are high. Yet, caution is advised in drawing conclusions. Despite the statistical significance, the slopes for this variable are nearly indistinguishable, and the disparities between confidence intervals are negligible. Hence, the link between victimization and loneliness might be largely independent of prevailing classroom victimization norms. This is somewhat unanticipated, given past evidence underscoring that social acceptance (Woodhouse et al., 2012) mediates and school connectedness (Carney et al., 2020) moderates the association between victimization and loneliness. It seems intuitive to posit that deviations from classroom norms

might amplify feelings of loneliness. Given that both victimization and loneliness assessments are self-reported, potential biases, such as the shared reporter variance bias (Card & Hodges, 2010), could come into play. An adolescent perceiving themselves as maltreated might be predisposed to express heightened loneliness and vice versa.

5.4. Relational victimization and behavioral problems

Discrepancy from peer-reported relational victimization did not yield significant predictions for externalizing symptoms. Concurrent results indicate that peer-reported victimization itself predicts disruptiveness and physical aggression, but longitudinal results yielded no significant findings with both disruptiveness and physical aggression remaining unassociated with individual victimization, classroom norms, or discrepancies from victimization norms. Turning our attention to self-reported data, both concurrently and longitudinally individual victimization emerged as a significant predictor of self-reported conduct problems. Additionally, deviations from self-reported descriptive classroom relational victimization norms significantly forecasted increases in delinquent behaviors. Supplemental simple slope analysis showcased an interesting trend: relational victimization predicts conduct problems more robustly at low classroom victimization norms than at their high counterparts. This pattern intimates that while there might exist an effect of deviating from classroom norms on the surge in conduct problems, it might not be readily captured by the discrepancy variable. One plausible explanation lies in the nature of the relationship between these variables. If the association between deviation and conduct problems follows a non-linear trajectory, this could elucidate why a linear regression might miss it, even as it emerges in the simple slope analysis.

Although unsurprising that concurrent results found a significant association between victimization and all measured externalizing problem variables, a more surprising finding is that longitudinal findings from peer-reported relational victimization did not forecast changes in behavioral outcomes. Contrasted with the predictive nature of self-reported victimization, a potential pitfall emerges: the risk of shared reporter variance bias. Secondly, even though power analysis showed that the sample is ample, if the effect sizes of our findings are smaller than anticipated it could be possible that there was not enough power in the analysis to find these results. Yet, even in the face of such challenges, the findings do provide partial affirmation of the hypothesis that deviations from classroom victimization norms, particularly relational victimization, correlate with a rise in externalizing symptoms.

The underlying mechanisms potentially fueling this association might bear resemblance to those elucidating why physical victimization augments behavioral issues. When viewed through the lens of general strain theory (Agnew, 2001), students who perceive themselves as unfairly marginalized might experience acute emotional distress. As highlighted earlier, this emotional strain often finds vent in manifestations of conduct issues and delinquent behavior. This gives rise to a compelling proposition: individual variances in response might underscore the divergent behavioral outcomes.

Specifically, innately aggressive children might exhibit a greater proclivity towards conduct issues and overtly aggressive acts, while their less aggressive counterparts may veer more towards delinquency.

These findings might resemble the reciprocal in nature interplay between victimization and externalizing symptoms. The literature is replete with indications of this dynamic. For instance, it is documented that children with fewer friendships are more frequently victimized (Kendrick et al, 2012). Further, children manifesting aggressive tendencies tend to find themselves less favored by their peers (Coie et al., 1991), a phenomenon even more pronounced in classes where aggressive behaviors are atypical or less normative (Laninga-Wijnen et al., 2020). While this research hasn't delved into the nuances of aggressive norms as potential moderating factors, one can hypothesize the existence of a feedback loop, especially at diminished levels of victimization. Contextualizing this with the person-group dissimilarity model (Wright et al., 1984), an aggressive child within a classroom with prevalent lower aggression norms might find themselves marginalized and consequently more prone to victimization - a pattern observed in recent studies (Boor-klip et al., 2017).

Considering this dynamic, the narrative of the aggressive child becomes increasingly clear. Continuously subjected to victimization and rejection, devoid of acceptance within social cliques, and continually bearing the brunt of relational victimization, these children might find themselves cornered. In seeking a response to such maltreatment, they might gravitate towards the few mechanisms they understand—either communicating through aggression or, in an act of desperation, resorting to truancy

When interpreted through the lens of the Social Information Processing Model (Burgess et al., 2006), an intriguing rationale emerges for the significance of self-report results over peer-report results. Children with heightened aggressive tendencies might exhibit such behaviors due to their interpretation of the world as inherently more hostile, thereby feeling an inherent need to respond in kind. Consequently, even in the absence of objective victimization, these children might perceive a greater extent of victimization relative to their peers. Summarizing, the findings offer a partial affirmation of the hypothesis: discrepancies from classroom relational norms indeed appear to presage increases in delinquent behavior.

5.5. Relational victimization and emotional challenges

Concurrent findings indicated that relational victimization is predictive of loneliness and emotional symptoms. However, discrepancy from relational victimization classroom norms yielded no significant results. Longitudinally, for peer-reported victimization, discrepancy from classroom victimization norms and the homogeneity of the classroom (how similar other students in the class are to each other in terms of victimization) significantly predicted increases in loneliness. However, individual victimization and the discrepancy from classroom norms of victimization did not predict emotional symptoms. Self-reported discrepancy from classroom descriptive

victimization norms did not predict loneliness, but victimization and classroom victimization norms did predict loneliness and in opposite directions, suggesting that victimization and lower victimization classroom norms predict loneliness, but, perhaps, not as an interaction, although supplemental simple slope analysis showed no differences for those in low and high levels of classroom victimization norms. Additionally, individual levels of self-reported victimization predicted increases in emotional symptoms, but classroom variables did not.

The results lend credence to the hypothesis that divergence from classroom descriptive norms of victimization is predictive of loneliness in peer-reported data, but intriguingly, not for self-reported data. Such outcomes necessitate further reflection. The inherently reduced susceptibility of peer-reported data to shared reporter variance bias implies that these findings merit careful consideration. Notably, both individual self-reported victimization and lower self-reported classroom descriptive victimization norms predict loneliness. However, their combined interaction does not, even though the trend of greater victimization in classrooms with lower victimization norms aligns with our hypothesis. This might suggest that early adolescents have a heightened sensitivity to personal victimization compared to their perception of others being victimized, potentially diluting the interaction term's effect on self-reported outcomes. Alternatively, victimization in isolation might be a predictor of loneliness, as might lower classroom descriptive victimization norms, but they could operate independently. Some children might link their loneliness directly to victimization, while others might associate it with an overall low-victimization classroom environment. Huitsing et al. (2012) made analogous observations, indicating that non-victimized children who perceive a minority suffering victimization and feel powerless to intervene might experience intensified feelings of loneliness. Reinforcing the notion that loneliness is not a mere reflection of physical isolation (Goossens et al., 2009), such emotions might be rooted in a profound sense of helplessness and the anguish of witnessing peers suffer without the capacity to intervene.

The underlying mechanisms that explain increased feelings of loneliness due to discrepancies from classroom victimization norms are fairly intuitive. Invoking the person-group dissimilarity model (Wright et al., 1984), children who deviate from classroom norms often face greater rejection and diminished preference from their peers. Deprived of the opportunity to bond with others who share a similar plight, these children are left to navigate their emotional terrain alone (Parkhurst & Asher, 1992). The ensuing loneliness is an outcome of involuntary solitude – precisely the condition engendered by peer rejection.

Notably, in this study, victimized students demonstrated a susceptibility to emotional symptoms. However, the discrepancy from norms did not emerge as a significant predictor for these outcomes. Yet, supplemental simple slope analysis revealed that victimization in classrooms characterized by lower victimization norms did predict emotional symptoms, but this wasn't the case in classrooms with high victimization norms. This lends indirect support to our initial hypothesis that deviation from classroom victimization norms augments risks of emotional symptoms.

The association between discrepancy in relational victimization and emotional symptoms as well as loneliness can also be explained through optimal distinctiveness (Brewer, 2003). At the heart of well-being, children grapple with a nuanced balance: a desire for acceptance demands conformity, yet an innate yearning for individuality necessitates a degree of distinction (Laursen & Veenstra, 2021). Struggling to navigate this tightrope, they might feel adrift, unable to cultivate a genuine sense of group belonging (Leonardelli et al., 2010). This absence of belonging often precipitates feelings of loneliness (Baskin et al., 2010). Moreover, if these students are unable to self-categorize as part of their peer group (Turner & Reynolds, 2011), they might involuntarily adopt the role of the 'outcast', mirroring behaviors consistent with that identity (Hornsey, 2008). This line of thought finds resonance with the 'healthy context paradox', which posits that individuals often adapt their self-concepts to align with the treatment they perceive from others (Huitsing et al., 2012).

Indeed, 'misery loves company.' When multiple children experience bullying, they at least find solace in shared experiences, offering mutual understanding and empathy. In contrast, isolated victims bear their suffering in solitude. Such students often internalize the mistreatment, leading them down a path of self-blame (Pan et al., 2021). This altered self-perception can make them more susceptible to emotional disturbances, deepening their sorrow and fostering a sense of loneliness and emotional symptoms. Consequently, they might adopt a more passive stance, hoping to minimize the extent of their victimization (Salmivalli et al., 1996). However, contrary to their intentions, displaying vulnerability rarely deters aggressors, as supported by recent findings (Liao et al., 2022). Thus, these solitary victims find themselves trapped in a vicious cycle: their emotional distress and perceived helplessness further entrench their victimization, leaving them with few avenues of escape.

5.6. Main findings in the realm of the healthy context paradox

In sum, our results bolster the framework of the 'healthy context paradox' (Garandeau & Salmivalli, 2019). While not every anticipated outcome materialized as significant, a pattern emerged. Novel in the literature concerning the healthy context paradox, we found its link to externalizing symptoms, we observed that greater discrepancies from classroom physical victimization norms are tied to an array of behavioral issues, ranging from disruptiveness to physical aggression. This held true for both self and peer-reported victimization, though not for relational victimization. The role of relational victimization discrepancies appeared less influential for both internal and external problems. Yet, additional analyses revealed that victimization holds more weight in predicting loneliness and emotional symptoms in classrooms with lower victimization norms than in their high victimization counterparts. This is the first longitudinal study that looked at the healthy context paradox in the classroom predicting externalizing problems and the findings for discrepancy from physical victimization were replicated across self and peer-reported variables. Additionally, this is the first study that looked at both physical and relational victimization separately and even

though the findings were not consistent, this study paves the way for continued exploration of the intriguing 'healthy context paradox'.

5.7. Posstraumatic growth and resilience of victimized students

Although research on posttraumatic growth in victimized social misfits is lacking, the emotional toll of victimization on these students is well-documented (Ortega et al., 2009). Victimized students often exhibit higher rates of PTSD symptoms compared to non-victims, particularly if they have experienced chronic victimization (Baldry et al., 2019; Wolke et al., 2013). However, relatively little is known about the posttraumatic growth of survivors of peer victimization. Posttraumatic growth refers to positive changes that can occur after trauma, such as improved psychological functioning, a greater appreciation of life, and new priorities (Andreou et al., 2021). Studies indicate that students who have experienced victimization in school exhibit moderate levels of posttraumatic growth, with females showing higher levels of growth than males (Andreou et al., 2021). As these students recover from victimization, they may reassess their lives, leading to improvements in motivation, focus on personal advancement, and resilient coping strategies (Ravelo et al., 2022). Importantly, those who engage in deliberate rumination, actively reflecting on their experiences, rather than intrusive rumination, demonstrate higher levels of posttraumatic growth (Ravelo et al., 2024). Thus, while victimization is a potentially traumatic experience, students who reflect on their experiences may find opportunities for growth and learning, rather than remaining trapped in the past.

Another aspect to be considered and worthwhile in future research is the role of resilience in victims' reactions. Previous studies with adolescents have shown that resilience mediates the pathway between victimization and well-being in such a way that high resilience buffers the effects of bullying (Shemesh & Heiman, 2021). Outside factors such as family and peer support also help establish resilience to victimization, as students who have high self-esteem and do not feel alienated are less likely to experience depressive symptoms regardless of victimization (Sapouna & Wolke, 2013). Considering our research, this finding is especially intriguing since 'social misfits' often face peer alienation decreasing their potential resilience to victimization.

5.8. Group differences in associations

There were no significant differences in associations for primary and secondary school students.

5.8.1. Gender differences

Our analysis revealed no discernible gender differences in the tested paths, indicating that the ramifications of being perceived as a 'social misfit' are consistent across both boys and girls. These findings merit attention, especially when juxtaposed against

prior research which showcased distinct gender differences. For instance, a study by Yeung Thompson & Leadbeater (2013) reported that the impact of physical aggression on girls' internalizing symptoms was more pronounced compared to boys. The researchers posited that since girls infrequently encounter physical victimization, such experiences place them in a distinct deviant category. It's essential to note that while our study centered on discrepancies, we did not separately analyze the primary effects for each gender. Generally, our findings suggest that both boys and girls experience victimization and the role of "social victim" similarly and succumb to the same detrimental outcomes.

5.8.2. Lithuanian and USA students' differences

Distinct patterns were evident when contrasting primary school students from Lithuania and the USA. In the USA, physical victimization was a predictor of physical aggression, unlike in Lithuania. However, it's crucial to recognize that in our primary models, this path was non-significant for the combined dataset. Instead, the significant relationship was with the discrepancy path. This divergence suggests that, for Lithuanian students, the impact of being a 'social misfit' may be more salient than victimization per se. Conversely, for USA students, victimization could be more predictive of physical aggression, with both the direct victimization and discrepancy paths holding significance. Another observed distinction was the prediction of loneliness by self-reported physical victimization for American students, a trend absent among Lithuanian participants. This specific finding, given its borderline significance and absence of a preceding hypothesis, might be treated with caution and could potentially stem from reporting bias.

5.9. Limitations and future directions

Limitations

Our study is not without limitations. First, our sample involved students from 39 classrooms, which is an acceptable but small number for G-APIM analyses (Marsh et al., 2012). Underpowered analyses make it difficult to detect small effects, so caution is warranted in the interpretation of the null findings. Second, middle school students in Florida changed classes each period, so descriptive classroom victimization norms for this age group in this location could not be assessed. Consequently, although the findings for younger students generalize across cultures, those for older students were limited to Lithuania. The consequences of being a victimized misfit in multiple settings as opposed to only in a single setting (as can occur in older students who have different classmates throughout the day) is an important topic for future study. Third, shared reporter variance could potentially bias the self-report findings, but this concern is partly mitigated by the results from peer-reported data. Finally, our analyses fail to account for interpersonal changes that occur across the course of a semester. Friendless children are victimized more frequently than friended children (Kendrick

et al., 2012), and victimized children gain and lose friends at a rapid rate (Bowker & Spencer, 2010). Experiences with friends may play an important role in integrating the child into the group, limiting risks for victimization, and mitigating tendencies to act out in the face of unfair treatment. Another limitation is that the study did not include peer or outside source (parents or teachers) reports of internalizing symptoms, as correlations between peer-reported measures and self-report measures are often different, and even parent-reported measures of internalizing symptoms show different trajectories than self-reported internalizing symptoms (Keiley et al., 2000). Friends can also moderate effects of victimization on internalizing and externalizing, in this case our study didn't check the potential moderating effects of friends (Yeung Thompson & Leadbeater, 2013). The association between discrepancy from classroom victimization norms and internalizing and externalizing problems may not be direct, but rather mediated through emotional regulation or hostile attribution (Liu et al., 2021), this study did not account for these potential mediators.

Another aspect is that although the comparison of the chosen sub-models revealed similar patterns of model fit across different variations of the model, it remains uncertain whether the same results would be obtained in a different sample. Given that model fit indices are sample-dependent, variations in participant characteristics, cultural context, or classroom compositions may lead to different optimal models. Future research should aim to replicate these analyses using independent samples to test the robustness of the findings and determine the extent to which model preference may vary under different conditions.

Finally, our sample was collected during the academic year of 2021-2022, directly after the global plight of COVID-19. Considering the detrimental effects of the pandemic on youth some effects in our study may not be captured as they were masked by the internalizing symptoms increased due to the global circumstance.

Future directions

Previous studies have found that there are significant differences between popularity and descriptive classroom norms and how victimization norms interact with individuals in that class (Laninga-Wijnen et al., 2021). Future studies could use popularity norms and descriptive norms in the model of GAPIM to measure for the healthy context paradox. The typical way to measure popularity norms is by testing the correlation between popularity and the trait of interest and using the correlation score as a variable. This approach could be difficult to include in G-APIM, therefore an alternative potential method to calculate the classroom popularity norm is suggested. The popularity norm for G-APIM could be calculated as the interaction score of traits of interest*popularity for each individual. This score would not be used for the individual, as in such cases it would be an interaction variable. However, the suggestion is to average this score for all other individuals in the class. In this way, it would not test for moderation but represent the association level of popularity and trait of interest between all other classmates.

Additionally, future directions could look at the sense of helplessness among

children who are not victimized in classrooms with low victimization norms (especially popularity norms).

Thirdly, future research should investigate what individual traits may determine what causes children to react passively or aggressively to discrepancies in victimization. There is still some uncertainty about whether individuals react to physical aggression with aggression (Casper & Card, 2017) whether emotional control has a part to play in it (Kaynak et al., 2015), or both. Because the relationship between victimization and both externalizing and internalizing behaviors is reciprocal, it is important to find what could close this loop. Additionally, future studies could include personal resilience as a potential factor contributing to the association between victimization and maladjustment.

5.10. Recommendations for practitioners and policymakers

These findings hold substantial implications for teachers and practitioners. At the outset, it's pivotal to understand that a student's disruptiveness and misbehavior might be manifestations of underlying victimization. The onus is on educators to delve deeper rather than drawing superficial conclusions. Teachers, like all humans, are susceptible to cognitive biases. Confirmation bias is one such example where prior beliefs or perceptions about a student can influence how new information about that student is interpreted (Nair, 2022). This is further complicated by the Pygmalion effect, a phenomenon where higher expectations lead to an increase in performance. Although its influence is debated, its significance in educational settings has been highlighted (Rosenthal, 2010). When confronted with a misbehaving student, the natural inclination, driven by the fundamental attribution error (Kennedy, 2010), is to ascribe the behavior to the student's inherent characteristics rather than external factors or the setting they are in. This approach is problematic. By placing the blame squarely on the student, educators might inadvertently be perpetuating a cycle of disruptive behavior. This feeds into a form of self-fulfilling prophecy, where the expectations and reactions of the teacher can indirectly cause the very behavior they expect or fear (Loeb et al., 2016). Thus, a nuanced, empathetic, and informed approach is necessary. Recognizing and challenging one's biases, seeking to understand the root causes of behavior, and fostering a supportive classroom environment can go a long way in ensuring that students aren't unfairly labeled or misunderstood.

The perceptions held by teachers regarding disruptive and misbehaving students play a pivotal role in shaping the students' experiences and outcomes. It's paramount that educators not only recognize disruptive behaviors but also seek to understand the underlying causes behind them. Such understanding can foster stronger teacher-student relationships, which are crucial for nurturing victims and helping them develop the necessary social tools to break free from the cycle of victimization (McGrath & Van Bergen, 2019). Furthermore, while many victimization interventions have shown success (Gaffney et al., 2021), it's crucial to remember that not all students benefit equally. The emergence of the healthy context paradox highlights the inadvertent negative

outcome of some interventions: while creating a healthier environment for the majority, they may inadvertently exacerbate the victimization of a few. Therefore, the success of these interventions should not overshadow the needs of those who might still be struggling. Tailoring interventions to ensure inclusivity and address the unique challenges faced by these students is paramount. Moreover, the data underscores the challenges faced by "social misfits". These students are at a distinct disadvantage, making it crucial for educators to actively seek opportunities to foster their inclusion. It's important to understand that even in classrooms with a seemingly low incidence of victimization, the few who are victimized might feel an intensified sense of despair. This highlights that not just "unhealthy" classrooms with high levels of victimization need attention, but even those that seem relatively "healthy" require careful observation and intervention. Interventions should target both the bullies and the victims, helping the classroom culture become more accepting and providing skills for the victims that would help in their integration. In essence, it is essential to ensure that in our efforts to cultivate safe educational environments, we don't inadvertently overlook or further marginalize those who are already vulnerable.

For policymakers charting the course of intervention strategies against bullying, it is imperative to ensure that the overarching goal isn't just to elevate the overall classroom environment but to ensure the well-being of each individual student. While broader initiatives may enhance the general classroom atmosphere, it's vital that these efforts don't inadvertently leave behind a subset of students who remain entrenched in the cycle of victimization. Thus, any intervention aimed at bullying prevention should be complemented with regular follow-up sessions. These sessions should assess the holistic impact of the intervention, gauging not just the collective improvement but zeroing in on students who continue to grapple with victimization. This detailed monitoring can offer insights into the effectiveness of the intervention and whether any specific adjustments or additional support mechanisms are required. Furthermore, in recognizing the healthy context paradox, interventions should be designed with a dual focus: one that enhances the overall classroom climate and another that provides targeted support to students struggling to break free from the cycle of victimization. Such a two-pronged approach ensures that while the majority of the classroom benefits from a healthier environment, the needs of the marginalized aren't overlooked. In essence, policymakers must champion interventions that are both broad in their impact and nuanced in their approach, guaranteeing a safe and supportive educational space for every student.

5.11. Conclusions

This study delved into the intricate longitudinal relationship between physical and relational victimization, classroom victimization norms, and internalizing and externalizing student outcomes. While not all hypotheses were fully confirmed the study reveals a trend towards confirming healthy context paradox, suggesting that discrepancies from descriptive classroom norms of victimization, along with victimization

are responsible for various increases in behavioral and emotional problems. Most clearly the study reveals the longitudinal association between discrepancy from physical victimization classroom norms and increases in externalizing symptoms, whereas the association between discrepancy from victimization classroom norms and internalizing symptoms showed mixed results. In more detail, the findings from this study indicate that:

- Higher discrepancy from peer-reported physical victimization classroom norms was associated with increases in externalizing symptoms (disruptiveness and physical aggression) later in the year.
- Higher discrepancy from peer-reported physical victimization classroom norms was not associated with increases in internalizing symptoms (emotional problems and loneliness) later in the year.
- Higher discrepancy from peer-reported relational victimization classroom norms was not associated with increases in externalizing symptoms (disruptiveness and physical aggression) later in the year.
- Higher discrepancy from peer-reported relational victimization classroom norms was associated with increases in loneliness later in the year, but was not associated with increases in emotional symptoms.
- Higher discrepancy from self-reported physical victimization classroom norms was associated with increases in externalizing symptoms (conduct problems and delinquent behavior) later in the year.
- Higher discrepancy from self-reported physical victimization classroom norms was not associated with increases in internalizing symptoms (emotional problems and loneliness) later in the year.
- Higher discrepancy from self-reported relational victimization classroom norms was associated with increases in delinquent behavior later in the year but was not associated with increases in conduct problems. However, individual victimization was associated with conduct problems only in classrooms with low descriptive victimization norms.
- Higher discrepancy from self-reported relational victimization classroom norms was not associated with increases in internalizing symptoms (loneliness and emotional symptoms) later in the year. However, individual victimization was associated with emotional symptoms only in classrooms with low descriptive victimization norms.

The findings add to a growing body of evidence indicating that being a social misfit poses a risk for maladjustment, particularly when one is an outlier in terms of being victimized. Healthy classrooms may not be healthy for everyone. Children who remain victimized in a classroom that has lower victimization norms are worse off than those in classrooms with higher victimization norms. Indeed, groups thrive when they coalesce around a common antagonist. The findings are an important reminder about the dangers of blaming the victim. Students who act out may be doing so because they are the victims of maltreatment, not because they are inclined to misbehave or cannot control themselves.

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7. APPENDIX

Table S1. *Repeated Measures ANOVA Results for Study Variables Comparison by Gender*

Variable		F (df)	η^2	d	p
Self-reported loneliness	Time	0.850 (1, 627)	.001	.063	.350
	Time*Gender	2.563 (1, 627)	.004	.126	.110
	Between	**8.794 (1, 627)**	**.014**	**.238**	**.003**
	Boys	0.229 (1, 327)	.001	.063	.632
	Girls	3.231 (1, 300)	.011	.210	.073
Self-reported emotional symptoms	Time	0.040 (1, 639)	.000	.000	.841
	Time*Gender	0.033 (1, 639)	.000	.000	.855
	Between	**24.937 (1, 639)**	**.038**	**.397**	**.000**
	Boys	0.069 (1, 332)	.000	.000	.793
	Girls	0.000 (1, 307)	.000	.000	.989
Self-reported conduct problems	Time	0.002 (1. 639)	.000	.000	.965
	Time*Gender	1.656 (1. 639)	.003	.109	.199
	Between	0.843 (1. 639)	.001	.063	.359
	Boys	0.699 (1. 332)	.002	.089	.404
	Girls	1.017 (1. 307)	.003	.109	.314
Self-reported delinquent behavior	Time	0.103 (1, 595)	.000	.000	.748
	Time*Gender	0.011 (1, 595)	.000	.000	.917
	Between	**9.233 (1, 595)**	**.015**	**.246**	**.002**
	Boys	0.070 (1, 311)	.000	.000	.791
	Girls	0.037 (1, 284)	.000	.000	.848
Self-reported relational victimization	Time	1.888 (1, 623)	.003	.109	.170
	Time*Gender	0.097 (1, 623)	.000	.000	.756
	Between	0.428 (1, 623)	.001	.063	.521
	Boys	0.523 (1, 325)	.002	.089	.470
	Girls	1.585 (1, 298)	.005	.141	.209
Self-reported physical victimization	Time	1.129 (1, 621)	.002	.089	.288
	Time*Gender	0.318 (1, 621)	.001	.063	.573
	Between	**15.123 (1, 621)**	**.024**	**.313**	**.000**
	Boys	0.109 (1, 322)	.000	.000	.741
	Girls	1.592 (1, 299)	.005	.141	.208

Peer-reported physical victimization	Time	**9.200 (1, 698)**	**.013**	**.229**	**.003**
	Time*Gender	**8.042 (1, 698)**	**.011**	**.210**	**.005**
	Between	**11.787 (1, 698)**	**.017**	**.263**	**.001**
	Boys	**12.408 (1, 363)**	**.033**	**.389**	**.000**
	Girls	0.036 (1, 335)	.000	.000	.890
Peer-reported relational victimization	Time	0.001 (1, 698)	.000	.000	.973
	Time*Gender	0.809 (1, 698)	.001	.063	.369
	Between	3.835 (1, 698)	.005	.141	.051
	Boys	0.343 (1, 363)	.001	.063	.559
	Girls	0.493 (1, 335)	.001	.063	.483
Peer-reported disruptiveness	Time	0.135 (1, 699)	.000	.000	.713
	Time*Gender	0.797 (1, 699)	.001	.063	.372
	Between	**24.965 (1, 699)**	**.034**	**.375**	**.000**
	Boys	0.097 (1, 364)	.000	.000	.755
	Girls	1.579 (1, 335)	.005	.141	.210
Peer-reported physical aggression	Time	**17.204 (1, 699)**	**.024**	**.313**	**.000**
	Time*Gender	0.964 (1, 699)	.001	.063	.326
	Between	**60.280 (1, 699)**	**.079**	**.585**	**.000**
	Boys	**9.360 (1, 364)**	**.025**	**.320**	**.002**
	Girls	**9.755 (1, 335)**	**.028**	**.339**	**.002**

Note. N=706 (369 boys, 337 girls). Significant results at p<.05 in bold. The Time row describes changes over time of the full sample; The Time*Gender row describes the difference of change over time between genders; The Between row describes general variable size differences between samples; The Boys and Girls rows are from a follow-up analysis, describing change over time for separate samples. In all cases Degrees of freedom were 1. d=Cohen's d.

Table S2. *Repeated Measures ANOVA Results for Study Variables Comparison by School level (Primary vs Secondary)*

Variable		F (df)	η^2	d	p
Self-reported loneliness	Time	1.226 (1, 627)	.002	.089	.269
	Time*Sc. level	1.444 (1, 627)	.002	.089	.230
	Between	3.147 (1, 627)	.005	.141	.077
	Primary	2.085 (1, 240)	.009	.190	.150
	Secondary	0.006 (1, 386)	.000	.000	.939
Self-reported emotional symptoms	Time	0.657 (1, 639)	.001	.063	.418
	Time*Sc. level	**8.515 (1, 639)**	**.013**	**.229**	**.004**
	Between	**13.843 (1, 639)**	**.021**	**.292**	**.000**
	Primary	**5.515 (1, 253)**	**.021**	**.292**	**.020**
	Secondary	2.885 (1, 386)	.007	.167	.090
Self-reported conduct problems	Time	0.010 (1, 639)	.000	.000	.920
	Time*Sc. level	0.267 (1, 639)	.000	.000	.606
	Between	0.035 (1, 639)	.000	.000	.852
	Primary	0.164 (1, 253)	.001	.063	.686
	Secondary	0.106 (1, 386)	.000	.000	.745
Self-reported delinquent behavior	Time	0.016 (1, 595)	.000	.000	.898
	Time*Sc. level	0.384 (1, 595)	.001	.063	.536
	Between	0.625 (1, 595)	.001	.063	.429
	Primary	0.091 (1, 209)	.000	.000	.763
	Secondary	0.403 (1, 386)	.001	.063	.526
Self-reported relational victimization	Time	2.182 (1, 623)	.003	.109	.140
	Time*Sc. level	0.418 (1, 623)	.001	.063	.518
	Between	**5.000 (1, 623)**	**.008**	**.179**	**.026**
	Primary	1.560 (1, 237)	.007	.167	.213
	Secondary	0.505 (1, 386)	.001	.063	.478
Self-reported physical victimization	Time	2.793 (1, 621)	.004	.126	.095
	Time*Sc. level	**7.291 (1, 621)**	**.012**	**.220**	**.007**
	Between	1.348 (1, 621)	.002	.089	.248
	Primary	**6.275 (1, 235)**	**.026**	**.326**	**.013**
	Secondary	0.810 (1, 386)	.002	.089	.369

Peer-reported physical victimization	Time	**12.875 (1, 698)**	**.018**	**.270**	**.000**
	Time*Sc. level	**6.158 (1, 698)**	**.009**	**.190**	**.013**
	Between	**29.261 (1, 698)**	**.040**	**.408**	**.000**
	Primary	**10.961 (1, 277)**	**.038**	**.397**	**.001**
	Secondary	1.041 (1, 421)	.002	.089	.308
Peer-reported relational victimization	Time	0.391 (1, 698)	.001	.063	.532
	Time*Sc. level	**9.302 (1, 698)**	**.013**	**.229**	**.002**
	Between	**4.491 (1, 698)**	**.006**	**.132**	**.034**
	Primary	**4.690 (1, 277)**	**.017**	**.263**	**.031**
	Secondary	**4.244 (1, 421)**	**.010**	**.201**	**.040**
Peer-reported disruptiveness	Time	0.440 (1, 699)	.001	.063	.507
	Time*Sc. level	2.683 (1, 699)	.004	.126	.102
	Between	1.187 (1, 699)	.002	.089	.276
	Primary	2.194 (1, 277)	.008	.179	.140
	Secondary	0.599 (1, 422)	.001	.063	.439
Peer-reported physical aggression	Time	**15.960 (1, 699)**	**.022**	**.300**	**.000**
	Time*Sc. level	0.254 (1, 699)	.000	.000	.614
	Between	0.161 (1, 699)	.000	.000	.688
	Primary	**4.162 (1, 277)**	**.015**	**.246**	**.042**
	Secondary	**14.835 (1, 422)**	**.034**	**.375**	**.000**

Note. N=706 (280 primary school students, 426 secondary school students). Significant results at p<.05 in bold. Sc. Level – School level. The Time row describes changes over time of the full sample; the Time*Sc. level row describes the difference of change over time between samples of primary and secondary school students; the Between row describes general variable size differences between samples; the primary and secondary rows are from a follow-up analysis, describing change over time for separate samples (primary for primary school students, and secondary for secondary school students). In all cases Degrees of freedom were 1. d=Cohen's d.

Table S3. *Repeated Measures ANOVA Results for Study Variables Comparison by Location (Lithuanian Primary School Students vs USA Primary School Students)*

Variable		F (df)	η^2	d	p
Self-reported loneliness	Time	1.925 (1, 240)	.008	.179	.167
	Time*Location	0.622 (1, 240)	.003	.109	.431
	Between	**4.301 (1, 240)**	**.018**	**.270**	**.039**
	Lithuania	0.142 (1, 112)	.001	.063	.707
	USA	3.011 (1, 128)	.023	.300	.085
Self-reported emotional symptoms	Time	**5.904 (1, 252)**	**.023**	**.300**	**.016**
	Time*Location	0.771 (1, 252)	.003	.109	.381
	Between	**19.719 (1, 252)**	**.078**	**.582**	**.000**
	Lithuania	**4.326 (1, 112)**	**.037**	**.392**	**.040**
	USA	1.522 (1, 140)	.011	.210	.219
Self-reported conduct problems	Time	0.191 (1, 252)	.001	.063	.662
	Time*Location	0.103 (1, 252)	.000	.000	.749
	Between	1.561 (1, 252)	.006	.132	.213
	Lithuania	0.216 (1, 112)	.002	.089	.643
	USA	0.009 (1, 140)	.000	.000	.924
Self-reported delinquent behavior	Time	0.060 (1, 208)	.000	.000	.807
	Time*Location	0.528 (1, 208)	.003	.109	.468
	Between	0.113 (1, 208)	.001	.063	.738
	Lithuania	0.385 (1, 112)	.003	.109	.536
	USA	0.174 (1, 96)	.002	.089	.677
Self-reported relational victimization	Time	1.559 (1, 236)	.007	.167	.213
	Time*Location	0.005 (1, 236)	.000	.000	.941
	Between	0.576 (1, 236)	.002	.089	.449
	Lithuania	0.707 (1, 112)	.006	.132	.402
	USA	0.865 (1, 124)	.007	.167	.354
Self-reported physical victimization	Time	**6.137 (1, 234)**	**.026**	**.327**	**.014**
	Time*Location	0.256 (1, 234)	.001	.063	.614
	Between	2.710 (1, 234)	.011	.210	.101
	Lithuania	2.067 (1, 112)	.018	.271	.153
	USA	**4.264 (1, 122)**	**.034**	**.375**	**.041**

Peer-reported physical victimization	Time	**11.589 (1, 276)**	**.040**	**.408**	**.001**
	Time*Location	0.690 (1, 276)	.002	.089	.407
	Between	2.647 (1, 276)	.009	.190	.105
	Lithuania	**9.184 (1, 113)**	**.075**	**.569**	**.003**
	USA	3.607 (1, 163)	.022	.300	.059
Peer-reported relational victimization	Time	**3.861 (1, 276)**	**.014**	**.238**	**.050**
	Time*Location	0.840 (1, 276)	.003	.109	.360
	Between	0.335 (1, 276)	.001	.063	.563
	Lithuania	0.465 (1, 113)	.004	.126	.497
	USA	**5.069 (1, 163)**	**.030**	**.352**	**.026**
Peer-reported disruptiveness	Time	2.046 (1, 276)	.007	.168	.154
	Time*Location	0.018 (1, 276)	.000	.000	.893
	Between	**4.162 (1, 276)**	**.015**	**.246**	**.042**
	Lithuania	0.677 (1, 113)	.006	.132	.412
	USA	1.548 (1, 163)	.009	.190	.215
Peer-reported physical aggression	Time	3.349 (1, 276)	.012	.220	.068
	Time*Location	0.967 (1, 276)	.003	.109	.326
	Between	0.350 (1, 276)	.001	.063	.554
	Lithuania	0.262 (1, 113)	.002	.089	.610
	USA	**5.431 (1, 163)**	**.032**	**.363**	**.021**

Note. N=278 (114 Lithuanian students; 164 USA students). Significant results at p<.05 in bold. The time row describes changes over time of the full sample; the Time*Location row describes the difference of change over time between Lithuanian and USA primary school students; the Between row describes general variable size differences between samples; USA and Lithuania rows are from a follow-up analysis, describing change over time for separate samples. In all cases Degrees of freedom were 1. d=Cohen's d.

Table S4. *Changes over time of reported variables.*

Variable	Mean Time 1	Mean Time 2	F (df)	η^2	p
Self-reported loneliness	1.906	1.873	0.728 (1, 628)	001	.394
Self-reported emotional symptoms	2.486	2.480	0.043 (1, 640)	.000	.835
Self-reported conduct problems	1.850	1.851	0.000 (1, 640)	.000	.995
Self-reported delinquent behavior	1.249	1.256	0.107 (1, 596)	.000	.744
Self-reported relational victimization	1.928	1.879	1.857 (1, 624)	.003	.173
Self-reported physical victimization	1.612	1.580	1.088 (1, 622)	.002	.297
Peer-reported relational victimization	0.517	0.517	0.000 (1, 699)	.000	.998
Peer-reported physical victimization	**0.472**	**0.371**	**9.818 (1, 699)**	**.014**	**.002**
Peer-reported disruptiveness	1.598	1.580	0.110 (1, 700)	.000	.741
Peer-reported physical aggression	**1.089**	**0.890**	**17.574 (1, 700)**	**.024**	**.000**

Note. N=706. Significant results at p<.05 in bold.

Table S5. *Comparison of Cross-sectional data-based G-APIM models for individual-group similarity of peer-reported physical victimization on peer-reported: disruptiveness, physical aggression, and self-reported: loneliness, emotional symptoms.*

Outcome	Model fit indices	Empty	Main effects	Person-fit	Complete	Contrast	Similarity contrast	Full contrast
Disrupt.	SABIC	-1678.73	-1853.98	**-1856.72**	-1853.44	-1851.39	-1854.96	-1852.45
	RMSEA	.230	.053	**.024**	.049	.062	.043	.059
	[95% CI]	[.202; .258]	[.015; .095]	**[.000; .083]**	[.000; .124]	[.031; .097]	[.000; .096]	[.023; .100]
Physical aggression	SABIC	-2085.55	-2299.73	**-2321.26**	-2317.886	-2296.746	-2310.124	-2307.213
	RMSEA	.263	.108	**.023**	.049	.103	.092	.090
	[95% CI]	[.235; .291]	[.073; .146]	**[.000; .082]**	[.000; .124]	[.073; .136]	[.050; .140]	[.055; .129]
Loneliness	SABIC	-3339.814	**-3349.829**	-3347.807	-3345.682	-3347.472	-3349.05	-3347.031
	RMSEA	.070	**.033**	.037	.049	.050	.023	.049
	[95% CI]	[.042; .100]	**[.000; .078]**	[.000; .092]	[.000; .124]	[.016; .086]	[.000; .082]	[.007; .091]
Emotional symptoms	SABIC	-3684.944	**-3692.975**	-3690.199	-3686.936	-3681.56	-3690.269	-3679.121
	RMSEA	.061	**.014**	.024	.049	.071	.023	.082
	[95% CI]	[.033; .093]	**[.000; .067]**	[.000; .083]	[.000; .124]	[.040; .106]	[.000; .082]	[.047; .122]

Note. N=706. Numbers in bold refer to the final models. SABIC = Sample Adjusted Bayesian information criterion; RMSEA = Root Mean Square Error of Approximation; G-APIM = group actor–partner interdependence model; Disrupt. = Disruptiveness

Table S6. *Comparison of Cross-sectional data based G-APIM models for individual-group similarity of peer-reported relational victimization on peer-reported: disruptiveness, physical aggression, and self-reported: loneliness, emotional symptoms.*

Outcome	Model fit indices	Empty	Main effects	Person-fit	Complete	Contrast	Similarity contrast	Full contrast
Disrupt.	SABIC	-2452.079	**-2553.825**	-2550.866	-2550.069	-2554.028	-2553.054	-2553.17
	RMSEA	.174	**.007**	.022	000	.028	.000	.019
	[95% CI]	[.147; .203]	**[.000; .064]**	[.000; .081]	[.000; .068]	[.000; .069]	[.000; .049]	[.000; .069]
Physical aggression	SABIC	-2862.996	-2987.669	-2987.102	**-2988.66**	-2981.305	-2984.494	-2978.094
	RMSEA	.195	.048	.046	**.000**	.069	.063	.083
	[95% CI]	[.168; .224]	[.003; .090]	[.000; .099]	**[.000; .068]**	[.038; .104]	[.021; .113]	[.048; .122]
Loneliness	SABIC	-4118.087	**-4145.347**	-4142.52	-4139.154	-4143.03	-4142.338	-4140.102
	RMSEA	.092	**.000**	.000	.000	.029	.000	.037
	[95% CI]	[.064; .122]	**[.000; .031]**	[.000; .012]	[.000; .068]	[.000; .069]	[.000; .039]	[.000; .081]
Emotional symptoms	SABIC	-4468.68	**-4467.827**	-4466.272	-4463.162	-4465.53	-4464.757	-4462.546
	RMSEA	.030	**.000**	.000	.000	.037	.000	.046
	[95% CI]	[.000; .065]	**[.000; .056]**	[.000; .043]	[.000; .068]	[.000; .075]	[.000; .073]	[.000; .089]

Note. N=706. Numbers in bold refer to the final models. SABIC = Sample Adjusted Bayesian information criterion; RMSEA = Root Mean Square Error of Approximation; G-APIM = group actor–partner interdependence model; Disrupt. = Disruptiveness

Table S7. *Comparison of Cross-sectional data based G-APIM models for individual-group similarity of self-reported physical victimization on self-reported: conduct problems, delinquent behavior, loneliness, emotional symptoms.*

Outcome	Model fit indices	Empty	Main effects	Person-fit	Complete	Contrast	Similarity contrast	Full contrast
Conduct problems	SABIC	-574.911	-766.672	-768.058	-765.449	-750.381	**-768.833**	-752.224
	RMSEA	.238	.036	.000	.000	.087	**.000**	.090
	[95% CI]	[.210; .266]	[.000; .080]	[.000; .060]	[.000; .076]	[.057; .121]	**[.000; .029]**	[.055; .129]
Del. behavior	SABIC	-1069.597	-1161.902	**-1164.64**	-1163.897	-1158.035	-1161.43	-1157.599
	RMSEA	.171	.054	**.026**	.000	.066	.054	.007
	[95% CI]	[.144; .200]	[.016; .095]	**[.000; .084]**	[.000; .083]	[.035; .101]	[.007; .106]	[.035; .110]
Loneliness	SABIC	-16.134	**-149.152**	-145.768	-143.625	-137.505	-145.926	-134.237
	RMSEA	.196	**.000**	.000	.000	.067	.000	.079
	[95% CI]	[.169; .225]	**[.000; .048]**	[.000; .068]	[.000; .078]	[.035; .101]	[.000; .066]	[.045; .119]
Emotional symptoms	SABIC	**-366.875**	-436.307	-433.253	-430.555	-424.814	-433.629	-422.064
	RMSEA	**.0143**	.000	.000	.000	.066	.000	.077
	[95% CI]	**[.116; .172]**	[.000; .045]	[.000; .060]	[.000; .080]	[.034; .100]	[.000; .051]	[.042; .117]

Note. N=706. Numbers in bold refer to the final models. SABIC = Sample Adjusted Bayesian information criterion; RMSEA = Root Mean Square Error of Approximation; G-APIM = group actor–partner interdependence model; Del. behavior = Delinquent behavior.

Table S8. *Comparison of cross-sectional data based G-APIM models for individual-group similarity of self-reported relational victimization on self-reported: conduct problems, delinquent behavior, loneliness, emotional symptoms.*

Outcome	Model fit indices	Empty	Main effects	Person-fit	Complete	Contrast	Similarity contrast	Full contrast
Conduct problems	SABIC	247.605	**63.601**	65.592	66.43	72.86	63.738	73.058
	RMSEA	.233	**.039**	.045	.043	.073	.026	.077
	[95% CI]	[.206; .262]	**[.000; .083]**	[.000; .098]	[.000; .119]	[.042; .107]	[.000; .084]	[.043; .117]
Del. behavior	SABIC	-245.932	-304.728	**-301.515**	-298.141	-304.626	-301.441	-301.329
	RMSEA	.134	.000	**.019**	.046	.028	.021	.038
	[95% CI]	[.107; .163]	[.000; .061]	**[.000; .080]**	[.000; .122]	[.000; .068]	[.000; .081]	[.000; .082]
Loneliness	SABIC	806.969	515.352	517.797	518.291	**536.292**	518.735	539.675
	RMSEA	.291	.039	.048	.044	**.097**	.055	.114
	[95% CI]	[.264; .320]	[.000; .083]	[.000; .100]	[.000; .120]	**[.069; .130]**	[.007; .106]	[.079; .152]
Emotional symptoms	SABIC	**460.201**	343.094	346.427	346.738	359.563	346.064	362.546
	RMSEA	**.188**	.037	.052	.049	.088	.049	.103
	[95% CI]	**[.161; .217]**	[.000; .081]	[.000; .103]	[.000; .124]	[.057; .121]	[.000; .101]	[.068; .141]

Note. N=706. Numbers in bold refer to the final models. SABIC = Sample Adjusted Bayesian information criterion; RMSEA = Root Mean Square Error of Approximation; G-APIM = group actor–partner interdependence model; Del. behavior = Delinquent behavior.

Table S9. *Cross-sectional data-based G-APIM results from the best fitting sub-models: Peer-reported physical victimization predicts peer-reported: disruptiveness and physical aggression and self-reported: loneliness, emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 1 Disruptiveness (peer report).			
Person fit sub-model			
Individual Victimization (*x*)	.364	[.238; .490]	.000
Classroom Descriptive Victimization Norm (*x'*)	-.150	[-.217; .082]	.000
Discrepancy from Classroom Victimization Norm (*i*)	-.164	[-.293; -.035]	.013
Outcome: Time 1 Physical aggression (peer report)			
Person fit sub-model			
Individual Victimization (*x*)	.279	[.135; .026]	.000
Classroom Descriptive Victimization Norm (*x'*)	-.180	[-.098; -.011]	.000
Discrepancy from Classroom Victimization Norm (*i*)	**-.320**	**[-.274; .112]**	**.000**
Outcome: Time 1Loneliness (Self-report)			
Main effects sub-model			
Individual Victimization (*x*)	.143	[.066; .220]	.000
Classroom Descriptive Victimization Norm (*x'*)	-.033	[-.048; .114]	.422
Outcome: Time 1 Emotional symptoms (self-report)			
Main effects sub-model			
Individual Victimization (*x*)	.018	[-.059; .083]	.641
Classroom Descriptive Victimization Norm (*x'*)	.143	[.064; .222]	.000

Note: N=706 All models include location (country) as a covariate.

Results significant at p<.05 in bold.

Figure S1a. Concurrent Peer-reported Physical Victimization Predicting Peer-reported Disruptiveness at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

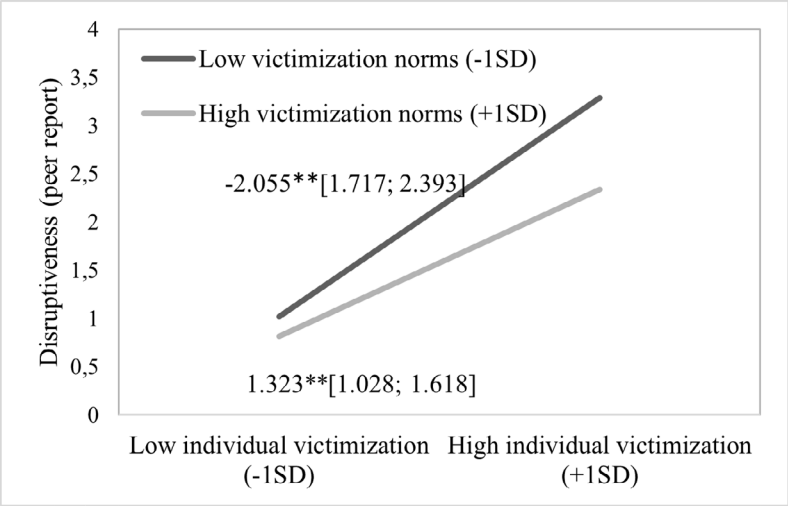


Figure S1b. Concurrent Peer-reported Physical Victimization Predicting Peer-reported Physical Aggression at Low and High Levels of Classroom Peer-reported Physical Victimization Norms (x').

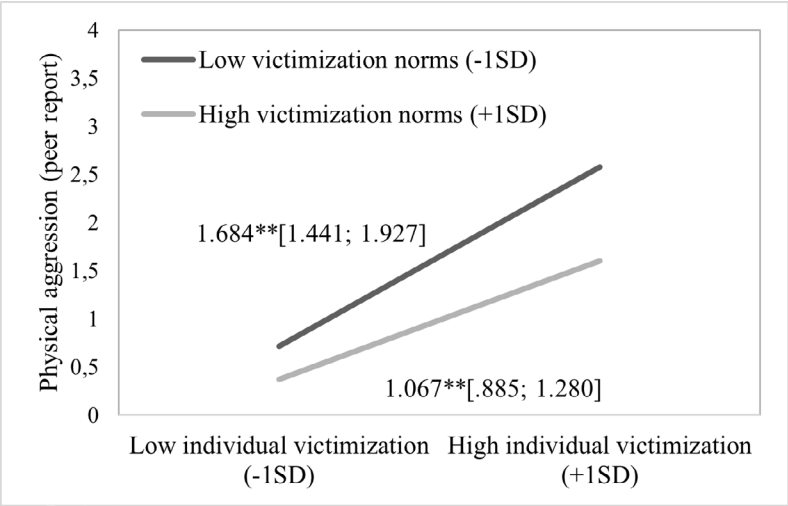
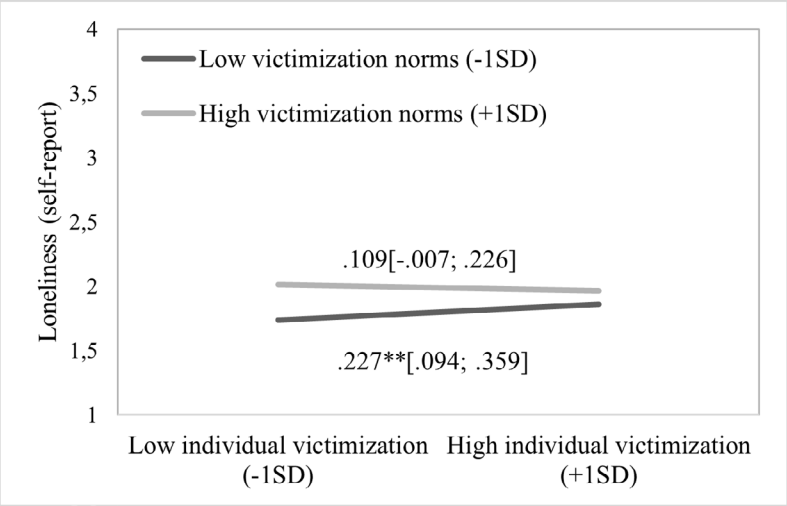


Figure S1c. Concurrent Peer-reported Physical Victimization Predicting Self-reported Loneliness at Low and High Levels of Classroom Peer-reported Physical Victimization Norms (x').



Note. N = 706; * p < .05; ** p < .001.

Table S10. *Cross-sectional data-based G-APIM results from the best fitting sub-models: Peer-report relational victimization predicts peer-reported disruptiveness, physical aggression and self-reported loneliness, emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 1 Disruptiveness (peer report).			
Main effects sub-model			
Individual Victimization (*x*)	**.383**	**[.319; .447]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	-.063	[-.133; .006]	.074
Outcome: Time 1 Physical aggression (peer report)			
Complete sub-model			
Individual Victimization (*x*)	**.445**	**[.195; .636]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	**-.126**	**[-.233; -.018]**	**.022**
Discrepancy from Classroom Victimization Norm (*i*)	.016	[-.178; .211]	.868
Classroom Victimization Homogeneity (*i'*)	**-.138**	**[-.260; -.017]**	**.026**
Outcome: Time 1 Loneliness (Self-report)			
Main effects sub-model			
Individual Victimization (*x*)	**.214**	**[.142; .286]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.022	[-.054; .099]	.564
Outcome: Time 1 Emotional symptoms (self-report)			
Main effects sub-model			
Individual Victimization (*x*)	.032	[-.042; .105]	.401
Classroom Descriptive Victimization Norm (*x'*)	**.084**	**[.007; .161]**	**.034**

Note. N=706. All models include location (country) as a covariate.

Results significant at p<.05 in bold.

Figure S2a. Concurrent Peer-reported Relational Victimization Predicting Peer-reported Disruptiveness at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

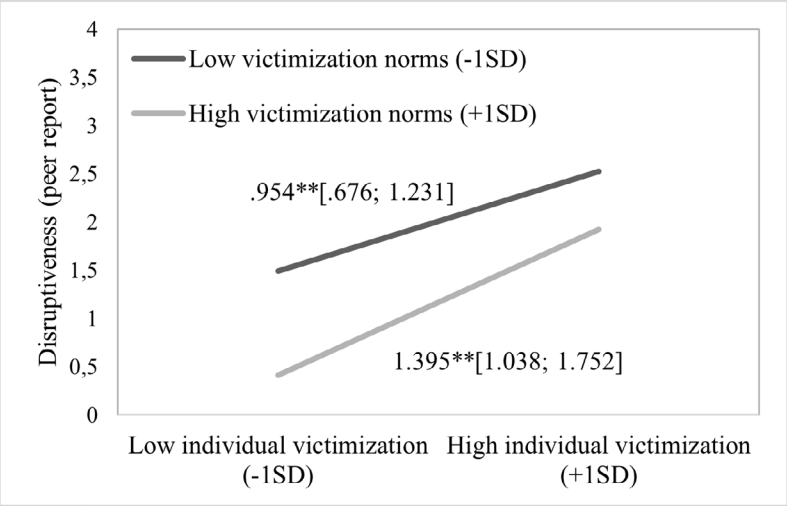


Figure S2b. Concurrent Peer-reported Relational Victimization Predicting Peer-reported Physical Aggression at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

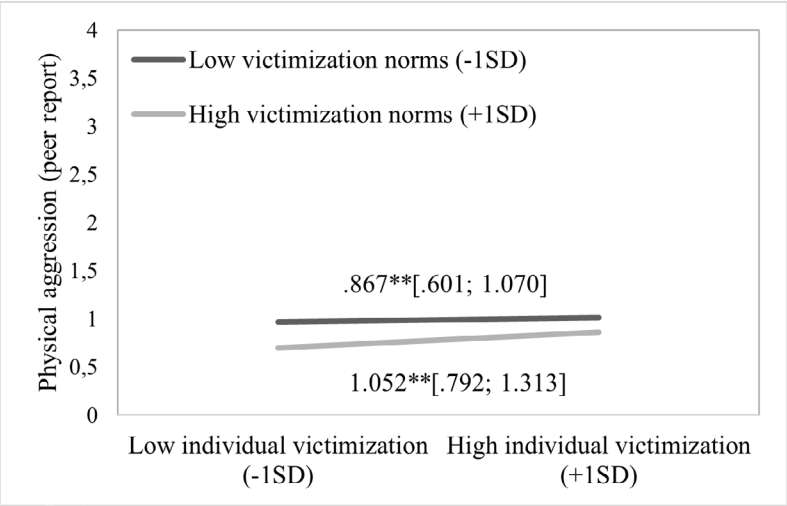
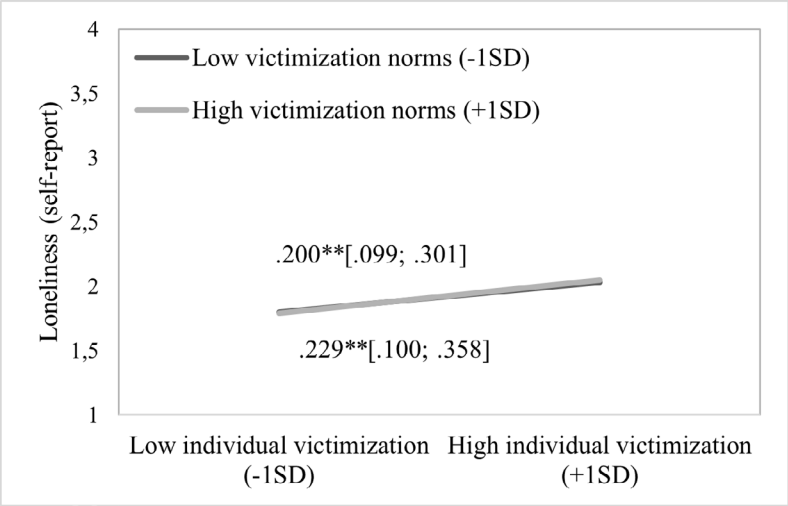


Figure S2c. Concurrent Peer-reported Relational Victimization Predicting Self-reported Loneliness at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').



Note. N = 706; * p < .05; ** p < .001.

Table S11. *Cross-sectional data-based G-APIM results from the best fitting sub-models: Self-reported physical victimization predicts self-reported: conduct problems, delinquent behavior, loneliness, emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 1 Conduct problems			
Similarity Contrast sub-model			
Individual Victimization (*x*)	.654	[-.161; .107]	.690
Classroom Descriptive Victimization Norm (*x'*)	-.074	[-.037; .056]	.690
Discrepancy from Classroom Victimization Norm (*i*)	**.169**	**[-.286; -.016]**	**.028**
Classroom Victimization Homogeneity (*i'*)	**-.092**	**[.009; .156]**	**.028**
Outcome: Time 1 Delinquent behavior			
Person fit sub-model			
Individual Victimization (*x*)	**.240**	**[.092; .389]**	**.002**
Classroom Descriptive Victimization Norm (*x'*)	-.083	[-.167; .001]	.052
Discrepancy from Classroom Victimization Norm (*i*)	**-.202**	**[-.361; -.043]**	**.013**
Outcome: Time 1 Loneliness (Self-report)			
Main effects sub-model			
Individual Victimization (*x*)	**.441**	**[.378; .504]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	-.014	[-.084; .057]	.704
Outcome: Time 1 Emotional symptoms (self-report)			
Main effects sub-model			
Individual Victimization (*x*)	**.315**	**[.464; .738]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.035	[-.211; .596]	.348

Note. N=706. All models include location (country) as a covariate. In similarity contrast sub-model, c and d (from i and i') are set to be equal but opposite of each other.

Results significant at p<.05 in bold.

Figure S3a. Concurrent Self-reported Physical Victimization Predicting Self-reported Conduct Problems at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

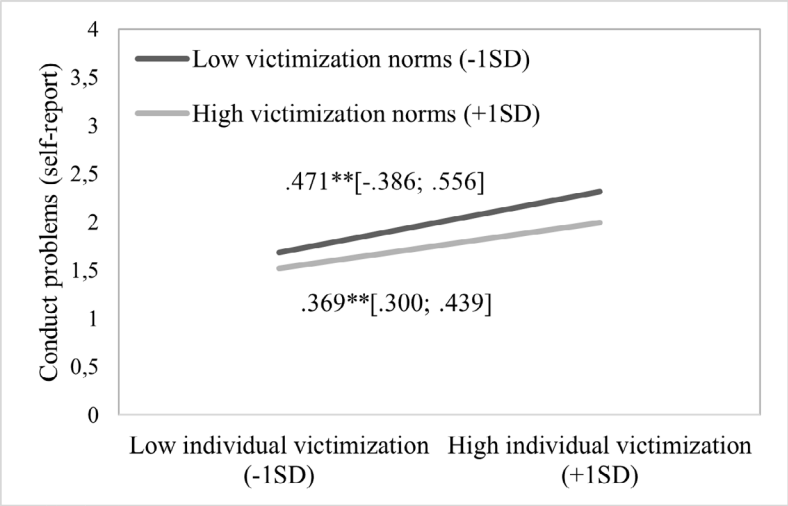


Figure S3b. Concurrent Self-reported Physical Victimization Predicting Self-reported Delinquent behavior at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

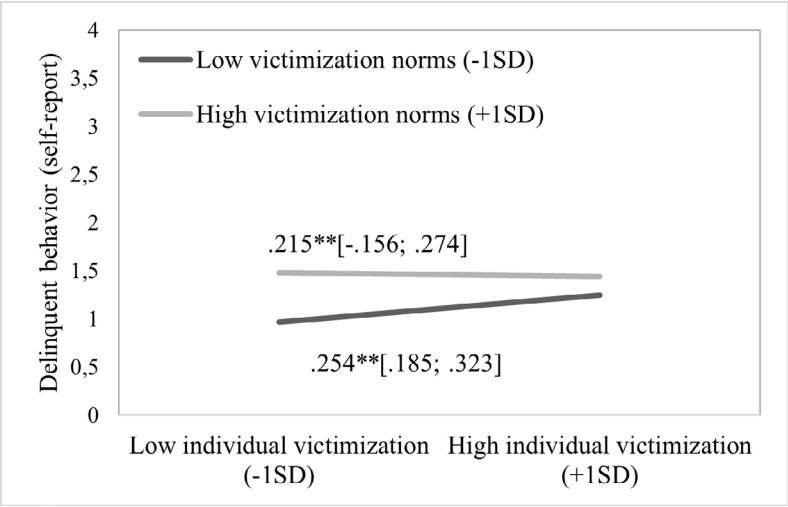


Figure S3c. Concurrent Self-reported Physical Victimization Predicting Self-reported Loneliness at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

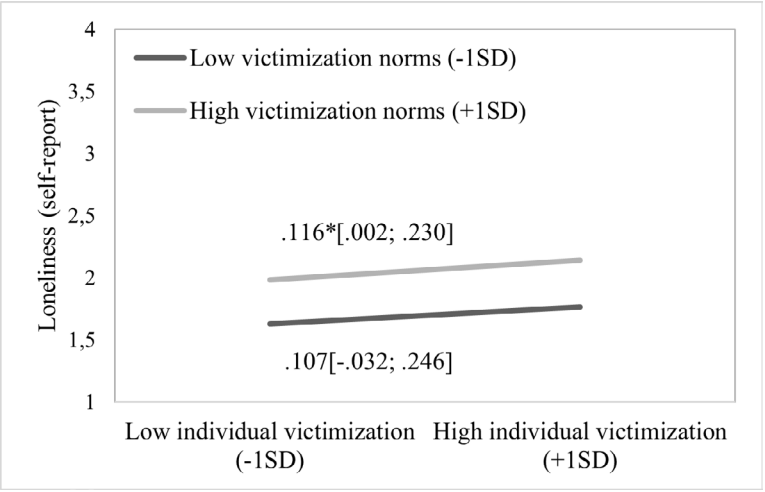
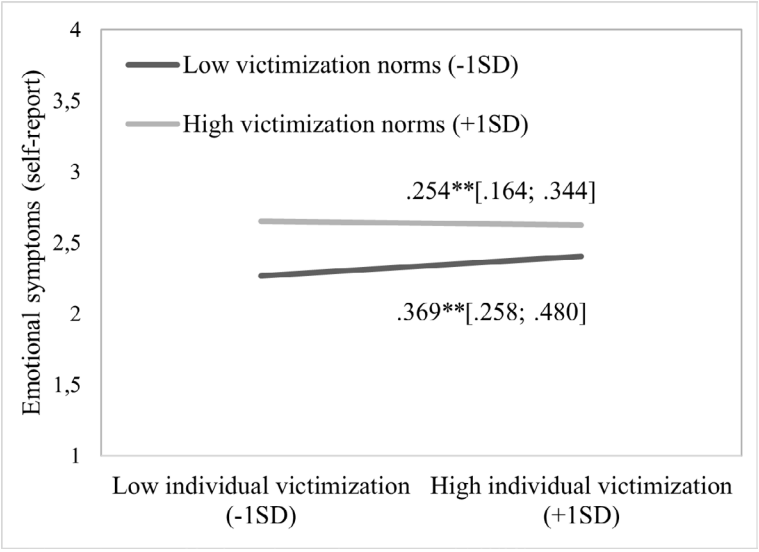


Figure S3d. Concurrent Self-reported Physical Victimization Predicting Self-reported Emotional Symptoms at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').



Note. N = 706; * p < .05; ** p < .001.

Table S12. *Cross-sectional data-based G-APIM results from the best fitting sub-models: Self-reported relational victimization predicts self-reported: conduct problems, delinquent behavior, loneliness, emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 1 Conduct problems			
Main effects sub-model			
Individual Victimization (*x*)	**.505**	**[.448; .563]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	-.033	[-.099; .034]	.338
Outcome: Time 1 Delinquent behavior			
Main effects sub-model			
Individual Victimization (*x*)	**.325**	**[.253; .397]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	-.024	[-.090; .054]	.544
Outcome: Time 1 Loneliness (Self-report)			
Main effects sub-model			
Individual Victimization (*x*)	**.612**	**[.563; .661]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	-.030	[-.091; .032]	.345
Outcome: Time 1 Emotional symptoms (self-report)			
Main effects sub-model			
Individual Victimization (*x*)	**.404**	**[.340; .467]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.039	[-.032; .109]	.281

Note: N=706. All models include location (country) as a covariate. Results significant at p<.05 in bold.

Figure S4a. Concurrent Self-reported Relational Victimization Predicting Self-reported Conduct Problems at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

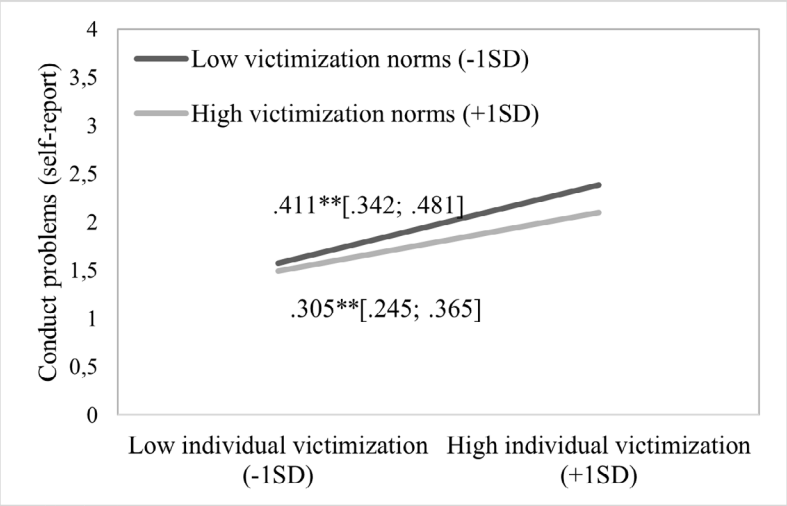


Figure S4b. Concurrent Self-reported Relational Victimization Predicting Self-reported Delinquent behavior at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

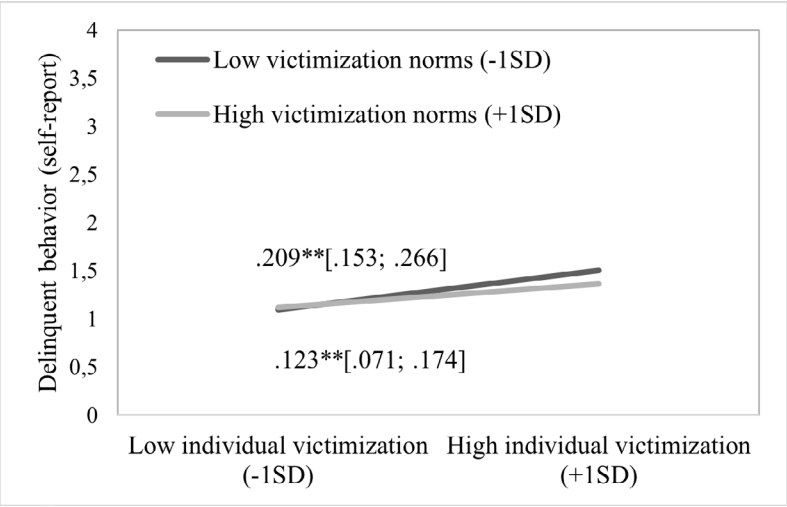


Figure S4c. Concurrent Self-reported Relational Victimization Predicting Self-reported Loneliness at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

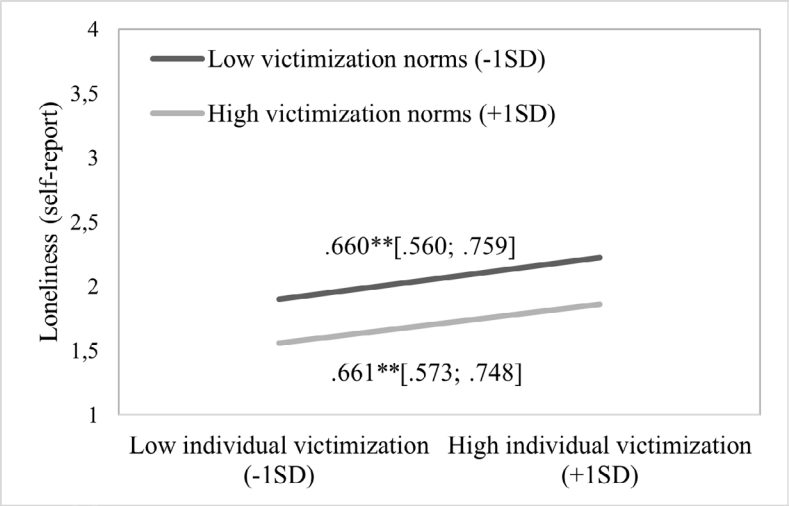


Figure S4d. Concurrent Self-reported Relational Victimization Predicting Self-reported Emotional Symptoms at Low and High Levels of Classroom peer-reported Physical Victimization Norms (x').

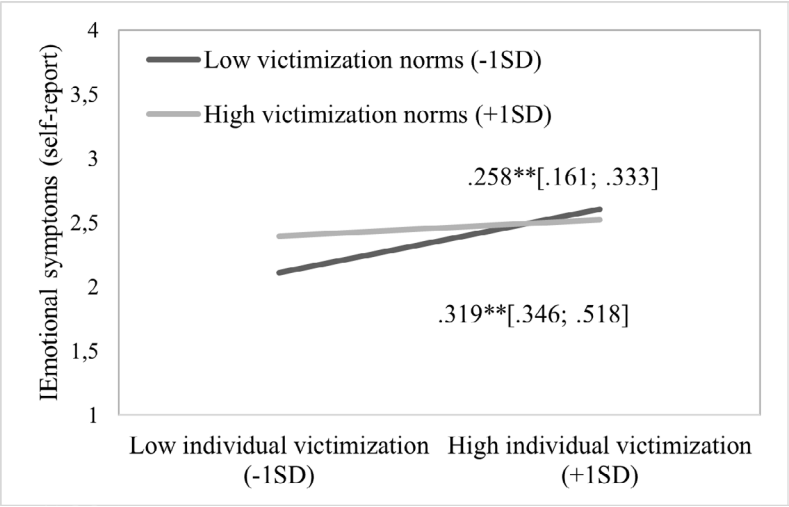


Table S13. *Results from the path analysis with peer-reported physical victimization predicting peer-reported Disruptiveness and peer-reported physical aggression, with the inclusion of the interaction term.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Disruptiveness (peer report).			
Disruptiveness (peer report) (T1)	**.859**	**[.833; .886]**	**.000**
Individual Victimization (*x*)	**.136**	**[.071; .201]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.060	[-.017; .137]	.126
Individual*Classroom	**-.145**	**[-.221; -.069]**	**.000**
Classroom Victimization Homogeneity (*i'*)	**.061**	**[.000; .122]**	**.050**
Outcome: Time 2 Physical aggression (peer report)			
Physical aggression (T1)	**.769**	**[.732 .805]**	**.000**
Individual Victimization (*x*)	.213	[.135; .291]	.000
Classroom Descriptive Victimization Norm (*x'*)	-.021	[-.112; .069]	.647
Individual*Classroom	**-.159**	**[-.248; -.069]**	**.001**
Classroom Victimization Homogeneity (*i'*)	-.057	[-.129; -.014]	.117

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Individual*Classroom = Individual Victimization*Classroom Descriptive Victimization Norms;

Results significant at p>.05 in bold

Table S14. *Results from the path analysis with peer-reported relational victimization predicting self-reported loneliness, with the inclusion of the interaction term.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Loneliness (self-report)			
Loneliness (T1)	**.532**	**[.441; .589]**	**.000**
Individual Victimization (*x*)	**.195**	**[.079; .311]**	**.001**
Classroom Descriptive Victimization Norm (*x'*)	.102	[-.010; .215]	.074
Individual*Classroom	**-.193**	**[-.328; -.059]**	**.005**
Classroom Victimization Homogeneity (*i'*)	.066	[-.025; .157]	.153

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Individual*Classroom = Individual Victimization*Classroom Descriptive Victimization Norms;

Results significant at p>.05 in bold

Table S15. *Results from the path analysis with self-reported physical victimization predicting self-reported: conduct problems and delinquent behavior and self-reported lonelines, with the inclusion of the interaction norm.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Conduct problems (self-report)			
Conduct problems (T1)	**.521**	**[.456; .585]**	**.000**
Individual Victimization (*x*)	**.727**	**[.336; .1.118]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	**.368**	**[.073; .663]**	**.015**
Individual*Classroom	**-.689**	**[-1.12; -.262]**	**.002**
Classroom Victimization Homogeneity (*i'*)	.184	[-.096; .464]	.198
Outcome: Time 2 Delinquent behavior (self-report)			
Delinquent behavior (T1)	**.376**	**[.303; .449]**	**.000**
Individual Victimization (*x*)	**1.110**	**[.662; 1.558]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	**.629**	**[.294; .964]**	**.000**
Individual*Classroom	**-1.113**	**[-1.61; -.616]**	**.000**
Classroom Victimization Homogeneity (*i'*)	**.402**	**[.084; .720]**	**.013**
Outcome: Time 2 Loneliness (self-report)			
Loneliness (T1)	**.508**	**[.444; .573]**	**.000**
Individual Victimization (*x*)	.069	[-.345; .482]	.745
Classroom Descriptive Victimization Norm (*x'*)	.145	[-.167; .457]	.363
Individual*Classroom	.026	[-.041; .479]	.912
Classroom Victimization Homogeneity (*i'*)	.209	[-.086; .504]	.165

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Individual*Classroom = Individual Victimization*Classroom Descriptive Victimization Norms;

Results significant at p>.05 in bold

Table S16. *Results from the path analysis with self-reported relational victimization predicting self-reported: conduct problems, delinquent behavior, loneliness, and emotional symptoms with the inclusion of the interaction norm.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Conduct problems (self-report)			
Main effects model			
Conduct problems (T1)	**.502**	**[.411; .594]**	**.000**
Individual Victimization (*x*)	**.840**	**[.281; 1.399]**	**.003**
Classroom Descriptive Victimization Norm (*x'*)	**.215**	**[.055; .375]**	**.008**
Individual*Classroom	**-.762**	**[-1.31; -.212]**	**.007**
Classroom Victimization Homogeneity (*i'*)	-.022	[-.140; .097]	.721
Outcome: Time 2 Delinquent behavior (Self-report)			
Similarity contrast			
Delinquent behavior (T1)	**.354**	**[.190; .519]**	**.000**
Individual Victimization (*x*)	.756	[-.090; 1.602]	.080
Classroom Descriptive Victimization Norm (*x'*)	.152	[-.068; .371]	.175
Individual*Classroom	-.614	[-1.496; .267]	.172
Classroom Victimization Homogeneity (*i'*)	**.040**	**[-.077; .156]**	**.505**
Outcome: Time 2 Loneliness (self-report)			
Loneliness (T1)	**.451**	**[.358; .544]**	**.000**
Individual Victimization (*x*)	.175	[-.386; .737]	.540
Classroom Descriptive Victimization Norm (*x'*)	-.153	[-.318; .012]	.069
Individual*Classroom	-.029	[-.606; .547]	.920
Classroom Victimization Homogeneity (*i'*)	**-.155**	**[-.268; -.041]**	**.007**
Outcome: Time 2 Emotional symptoms (self-report)			
Emotional symptoms (T1)	**.610**	**[.539; .681]**	**.000**
Individual Victimization (*x*)	**.184**	**[-.254; .622]**	**.409**
Classroom Descriptive Victimization Norm (*x'*)	.000	[-.143; .143]	.998
Individual*Classroom	-.103	**[-.552; .347]**	.655
Classroom Victimization Homogeneity (*i'*)	-.065	[-.175; .045]	.248

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Individual*Classroom = Individual Victimization*Classroom Descriptive Victimization Norms;

Results significant at p>.05 in bold

Table S17. *Cross-sectional data Results from the path analysis with peer-reported physical victimization predicting peer-reported Disruptiveness and peer-reported physical aggression, with the inclusion of the interaction term.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 1 Disruptiveness (peer report).			
Individual Victimization (*x*)	**.656**	**[.551; .761]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	-.037	[-.183; .109]	.622
Individual*Classroom	**-.231**	**[-.374; -.088]**	**.001**
Classroom Victimization Homogeneity (*i'*)	.007	[-.109; .123]	.910
Outcome: Time 1 Physical aggression (peer report)			
Individual Victimization (*x*)	**.723**	**[.623; .823]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	-.108	[-.250; .033]	.133
Individual*Classroom	**-.262**	**[-.399; -.124]**	**.000**
Classroom Victimization Homogeneity (*i'*)	-.072	[-.184; -.004]	.210
Outcome: Time 1 Loneliness (self report)			
Individual Victimization (*x*)	**.215**	**[.086; .344]**	**.001**
Classroom Descriptive Victimization Norm (*x'*)	.126	[-.057; .309]	.177
Individual*Classroom	-.109	[-.276; .058]	.201
Classroom Victimization Homogeneity (*i'*)	.057	[-.088; .203]	.438

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Individual*Classroom = Individual Victimization*Classroom Descriptive Victimization Norms;

Results significant at p>.05 in bold

Table S18. *Cross-sectional data Results from the path analysis with peer-reported relational victimization predicting self-reported loneliness, with the inclusion of the interaction term.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 1 Disruptiveness (peer report)			
Individual Victimization (*x*)	**.288**	**[.163; .413]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	**-.158**	**[-.278; -.037]**	**.010**
Individual*Classroom	.135	[-.058; .282]	.071
Classroom Victimization Homogeneity (*i'*)	-.064	[-.162; .035]	.203
Outcome: Time 1 Physical aggression (peer report)			
Individual Victimization (*x*)	**.376**	**[.255; .497]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	**-.159**	**[-.277; -.041]**	**.008**
Individual*Classroom	.076	[-.068; .220]	.301
Classroom Victimization Homogeneity (*i'*)	**-.146**	**[-.242; -.050]**	**.003**
Outcome: Time 1 Loneliness (self report)			
Individual Victimization (*x*)	**.194**	**[.059; .328]**	**.001**
Classroom Descriptive Victimization Norm (*x'*)	-.003	[-.133; .124]	.959
Individual*Classroom	.026	[-.131; .183]	.747
Classroom Victimization Homogeneity (*i'*)	-.024	[-.130; .082]	.657

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Individual*Classroom = Individual Victimization*Classroom Descriptive Victimization Norms;

Results significant at p>.05 in bold

Table S19. *Cross-sectional data Results from the path analysis with self-reported physical victimization predicting self-reported: conduct problems and delinquent behavior and self-reported: loneliness, with the inclusion of the interaction norm.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 1 Conduct problems (self-report)			
Individual Victimization (*x*)	**.885**	**[.477; .1.293]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.012	[-.299; .324]	.938
Individual*Classroom	-.414	[-.868; .040]	.074
Classroom Victimization Homogeneity (*i'*)	-.083	[-.375; .209]	.578
Outcome: Time 1 Delinquent behavior (self-report)			
Individual Victimization (*x*)	**.599**	**[.131; 1.066]**	**.012**
Classroom Descriptive Victimization Norm (*x'*)	.001	[-.349; .351]	.955
Individual*Classroom	-.220	[-.742; -.303]	.409
Classroom Victimization Homogeneity (*i'*)	-.028	[-.358; .301]	.866
Outcome: Time 1 Loneliness (self-report)			
Individual Victimization (*x*)	**.655**	**[.224; 1.086]**	**.003**
Classroom Descriptive Victimization Norm (*x'*)	.068	[-.259; .395]	.683
Individual*Classroom	-.240	[-.719; .239]	.326
Classroom Victimization Homogeneity (*i'*)	.011	[-.295; .318]	.941
Outcome: Time 1 Emotional symptoms (self-report)			
Individual Victimization (*x*)	**.665**	**[.216; 1.115]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.221	[-.120; .563]	.167
Individual*Classroom	-.392	[-.891; .107]	.210
Classroom Victimization Homogeneity (*i'*)	**.074**	**[-.246; .395]**	**.023**

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Individual*Classroom = Individual Victimization*Classroom Descriptive Victimization Norms;

Results significant at p>.05 in bold

Table S20. *Cross-sectional data Results from the path analysis with self-reported relational victimization predicting self-reported: conduct problems, delinquent behavior, loneliness, emotional symptoms, with the inclusion of the interaction norm.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 1 Conduct problems (self-report)			
Individual Victimization (*x*)	**1.018**	**[.582; .1.454]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.037	[-.131; .205]	.667
Individual*Classroom	**-.554**	**[-1.02; -.083]**	**.021**
Classroom Victimization Homogeneity (*i'*)	-.092	[-.214; .029]	.137
Outcome: Time 1 Delinquent behavior (self-report)			
Individual Victimization (*x*)	**.902**	**[.389; 1.416]**	**.001**
Classroom Descriptive Victimization Norm (*x'*)	.115	[-.081; .310]	.250
Individual*Classroom	**-.631**	**[-1.19; -.074]**	**.026**
Classroom Victimization Homogeneity (*i'*)	-.033	[-.171; .104]	.635
Outcome: Time 1 Loneliness (self-report)			
Individual Victimization (*x*)	**.608**	**[.199; 1.018]**	**.004**
Classroom Descriptive Victimization Norm (*x'*)	-.115	[-.271; .004]	.147
Individual*Classroom	.004	[-.436; .444]	.986
Classroom Victimization Homogeneity (*i'*)	-.103	[-.216; .001]	.073
Outcome: Time 1 Emotional symptoms (self-report)			
Individual Victimization (*x*)	**1.107**	**[.649; 1.565]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.132	[-.045; .309]	.144
Individual*Classroom	**-.761**	**[-1.25; -.268]**	**.002**
Classroom Victimization Homogeneity (*i'*)	**-.132**	**[-.259; -.004]**	**.043**

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Individual*Classroom = Individual Victimization*Classroom Descriptive Victimization Norms;

Results significant at p>.05 in bold

Table S21. *Correlations and autocorrelations of included Time 1 and Time 2 variables with confidence intervals.*

	1	2	3	4	5	6	7	8	9	10
1. CP	.578** [.505; .643]	.427** [.320; .523]	.119** [.037; .210]	.143** [.060; .241]	.503** [.432; .571]	.399** [.319; .475]	.118** [.037; .207]	.500** [.433; .574]	.058 [-.018; 136]	.500** [.424; .571]
2. DB	.533** [.139; .349]	.421** [.265; .578]	.109* [.015; .203]	.116** [.022; .222]	.128** [.015; .243]	.222** [.132; .312]	.176** [.053; .319]	.387** [.277; .491]	.137** [.014; .277]	.314** [.222; .401]
3. DR	.247** [.139; .349]	.222** [.142; .310]	.886** [.851; .914]	.813** [.739; .868]	-.091* [-.170; -.010]	.040 [-.061; 039]	.490** [.367; .597]	.129** [.029; .229]	.355** [.201; .485]	.108** [.014; .200]
4. PA	.225** [.113; .343]	.149** [.070; .247]	.787** [.706; .846]	.850** [.796; .590]	-.095* [-.177; .011]	.059 [-.041; .162]	518** [.363; .644]	.219** [.110; .330]	.427** [.252; .561]	.135** [.032; .232]
5. ES	.502** [.435; .564]	.205** [.099; .299]	-.136** [-.209; -.064]	-.139** [-.212; -.069]	.659** [.605; .712]	.548** [.478; .611]	.069 [-.016; 158]	.355** [.276; .435]	.046** [-.041; .139]	.442** [.369; .517]
6. LON	.416** [.324; .495]	.266** [.149; .377]	.031 [-.063; .120]	.012 [-.079; .116]	.557** [.497; .612]	.543** [.461; .614]	.169** [.051; .288]	.458** [.373; .539]	.229** [.110; .340]	.624** [.559; .682]
7. PVP	.064 [-.033; .190]	.096* [-.005; .226]	.307** [.139; .459]	.368** [.173; .556]	-.026 [-.103; .078]	.120** [-.005; .229]	.562** [.389; .705]	.328** [.201; .452]	.633** [.467; .755]	.248** [.142; .355]
8. PVS	.530** [.429; .617]	.430** [.303; .533]	.259** [.154; .362]	.286** [.163; .407]	.296** [.211; .385]	.404** [.311; .486]	.256** [.119; .378]	.541** [.456; .618]	.273** [.152; .392]	.729** [.674; .778]
9. RVP	.127** [.020; .245]	.132** [.002; .286]	.223** [.078; .371]	.244** [.065; .428]	.081* [-.012; .189]	.215** [.103; .324]	.654** [.476; .771]	.275** [.148; .397]	.647** [.499; .759]	.266** [.146; .371]
10. RVS	.503** [.410; .577]	.371** [.266; .464]	.196** [.094; .290]	.196** [.091; .301]	.388** [.314; .464]	.560** [.480; .626]	.233** [.112; .332]	.733** [.675; .786]	.293** [.185; .392]	.563** [.479; .631]

Note. Abbreviations: CP – Self-reported conduct problems; DB – Self-reported delinquent behavior; DR – Peer-reported disruptiveness; PA – Peer-reported physical aggression; IS – Self-reported emotional symptoms; LON – Self-reported loneliness; PVP – Peer reported physical victimization; PVS – Self-reported physical victimization; RVP – Peer-reported relational victimization; RVS – Self-reported relational victimization. Time 1 results are presented above the diagonal. Time 2 results are presented below the diagonal. Autocorrelations are presented on the diagonal. 95% confidence intervals in brackets. *p<.05. **p<.01.

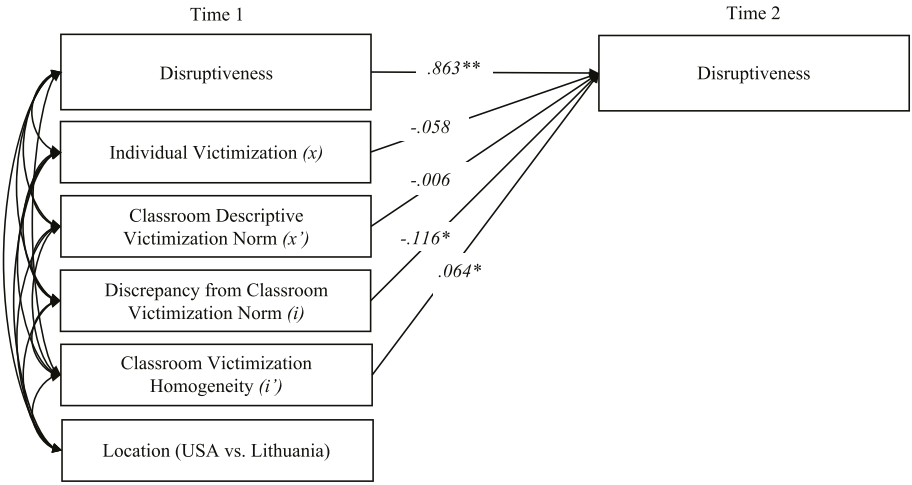
Table S22. *Testing for longitudinal measurement invariance of Conduct Problems, Delinquent behavior, Emotional symptoms, Loneliness, Physical victimization, Relational victimization scales.*

	Model fit indices			Model comparison		
	CFI	χ^2 (df)	RMSEA [90% CI]	ΔCFI	Δ χ^2 (df)	ΔRMSEA
Conduct problems						
Configural	.978	69.235 (29)	.045 [.031; .058]			
Metric	.977	75.711 (33)	.043 [.030; .056]	.001	-.6.476 (-4)	.002
Full scalar	.976	81.281 (37)	.042 [.029; .054]	.002	-.12.046 (-8)	.003
Delinquent behavior						
Configural	.982	81.944 (29)	.049 [.035; .064]			
Metric	.971	115.411 (33)	.058 [.045; .071]	.011	-33.467 (-4)	-.009
Full scalar	.968	126.265 (37)	.057 [.045; .070]	.014	-44.321 (-8)	-.008
Emotional symptoms						
Configural	.924	275.392 (47)	.084 [.074; .093]			
Metric	.925	277.300 (52)	.079 [.070; .088]	-.001	-1.908 (-5)	.005
Full scalar	.925	281.642 (57)	.075 [.067; .084]	-.001	-6.25 (-10)	.009
Loneliness						
Configural	1	6.178 (5)	.018 [.000; .058]			
Metric	1	8.357 (7)	.017 [.000; .052]	.000	-2.179 (-2)	.001
Full scalar	1	9.290 (9)	.007 [.000; .044]	.000	-3.112 (-4)	.011
Physical victimization						
Configural	1	5.214 (5)	.008 [.000; .054]			
Metric	1	7.314 (7)	.008 [.000; .048]	.000	-2.100 (-2)	.000
Full scalar	.999	10.786 (9)	.017 [.000; .048]	.001	-5.572 (-4)	-.009

Relational victimization						
Configural	.991	21.726 (5)	.069 [.041; .101]			
Metric	.985	34.645 (7)	.075 [.052; .101]	.006	-12.919 (-2)	.006
Full scalar	.985	35.88 (9)	.066 [.044; .089]	.006	-14,154 (-4)	-.003

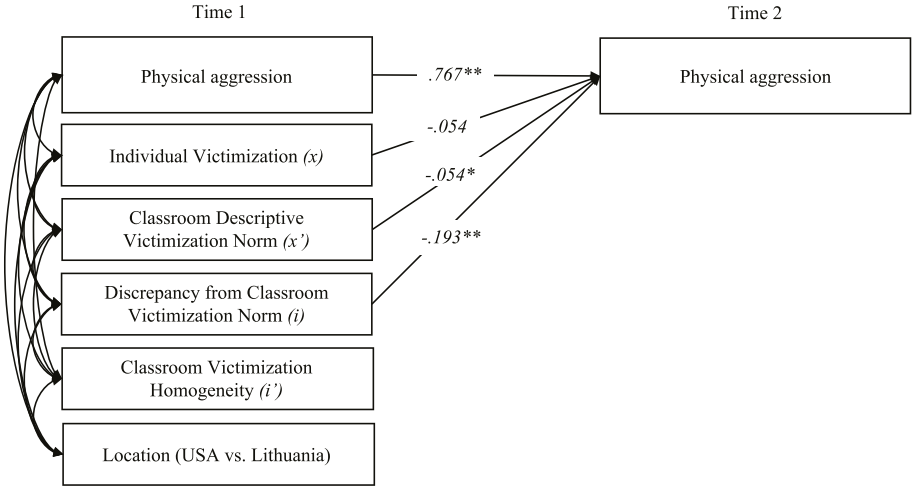
Note. $N = 786$. χ^2 = chi-square; df = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis Index; RMSEA = root mean square error of approximation; CI = confidence interval; Δ = change in the parameter (difference from the Configural model).

Figure S5. *Results from the path analysis: Peer-reported physical victimization predicts peer-reported disruptiveness. Longitudinal G-APIM similarity contrast sub-model.*



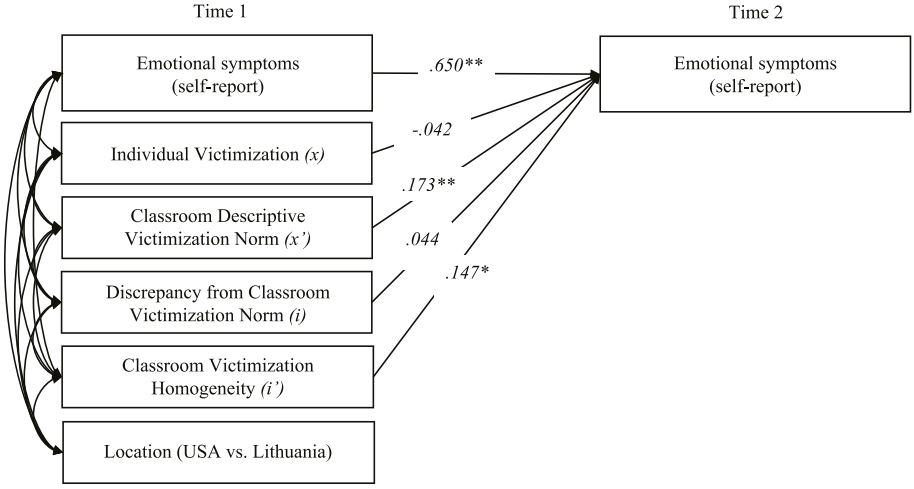
Note. *$p < 0.05$; **$p < 0.01$. In *similarity contrast*, sub-model paths *c* and *d* (from *i* and *i'*) are set to be equal but opposite of each other.

Figure S6. *Results from the path analysis: Peer-reported physical victimization predicts peer-reported Physical aggression. Longitudinal G-APIM person-fit sub-model.*



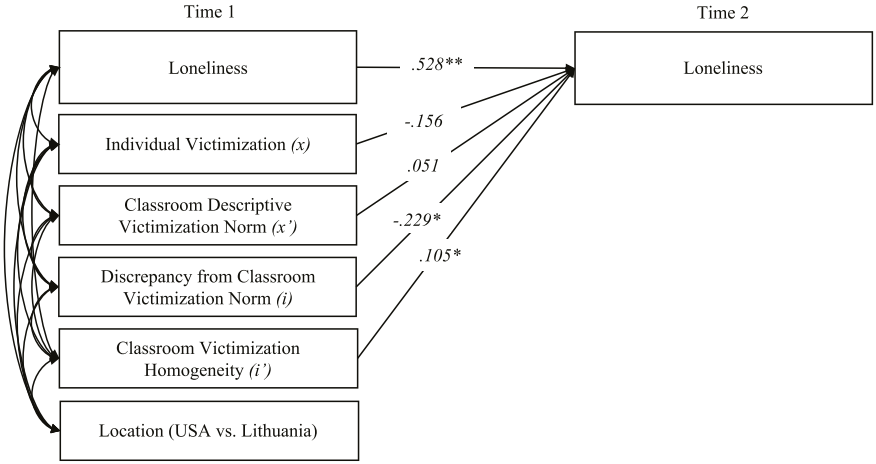
Note. *p < 0.05; **p < 0.01.

Figure S7. *Results from the path analysis: Peer-reported physical victimization predicts self-reported Emotional symptoms. Longitudinal G-APIM complete sub-model.*



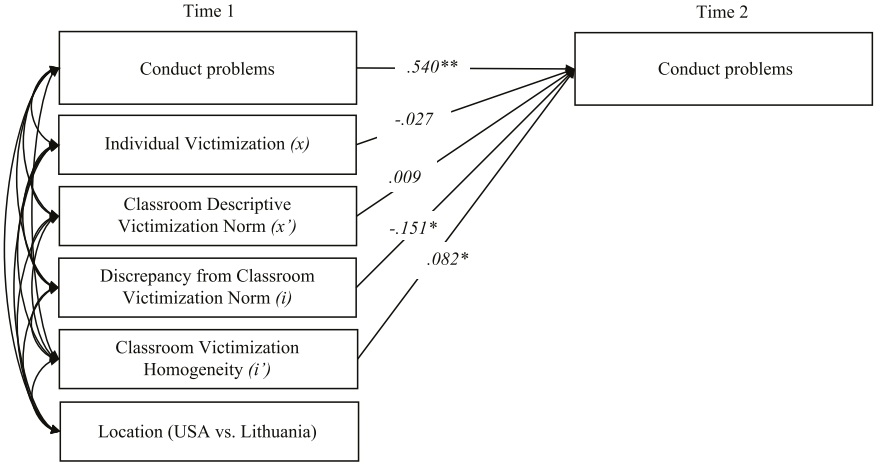
Note. *p < 0.05; **p < 0.01.

Figure S8. *Results from the path analysis: Peer-reported relational victimization predicts self-reported Loneliness. Longitudinal G-APIM full contrast sub-model.*



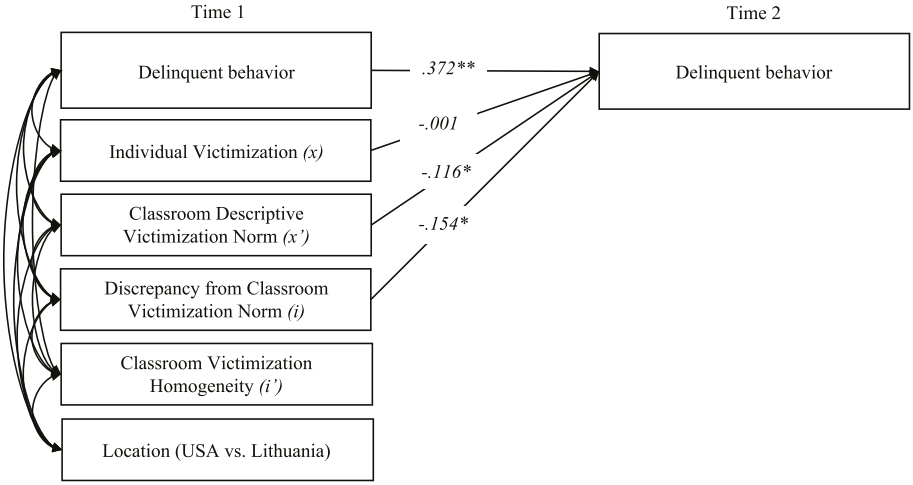
Note. *p < 0.05; **p < 0.01. In *full contrast* sub-model, paths *a* and *b* (from *x* and *x'*) and *c* and *d* (from *i* and *i'*) are set to be equal but opposite of each other.

Figure S9. *Results from the path analysis: Self-reported physical victimization predicts self-reported conduct problems. Longitudinal G-APIM full contrast sub-model.*



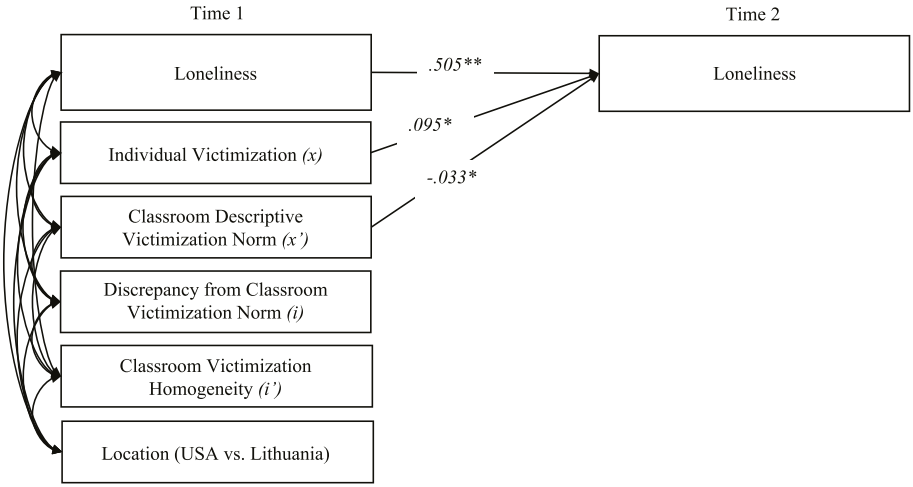
Note. *p < 0.05; **p < 0.01. In *full contrast* sub-model, paths *a* and *b* (from *x* and *x'*) and *c* and *d* (from *i* and *i'*) are set to be equal but opposite of each other.

Figure S10. *Results from the path analysis: Self-reported physical victimization predicts self-reported delinquent behavior. Longitudinal G-APIM person-fit sub-model.*



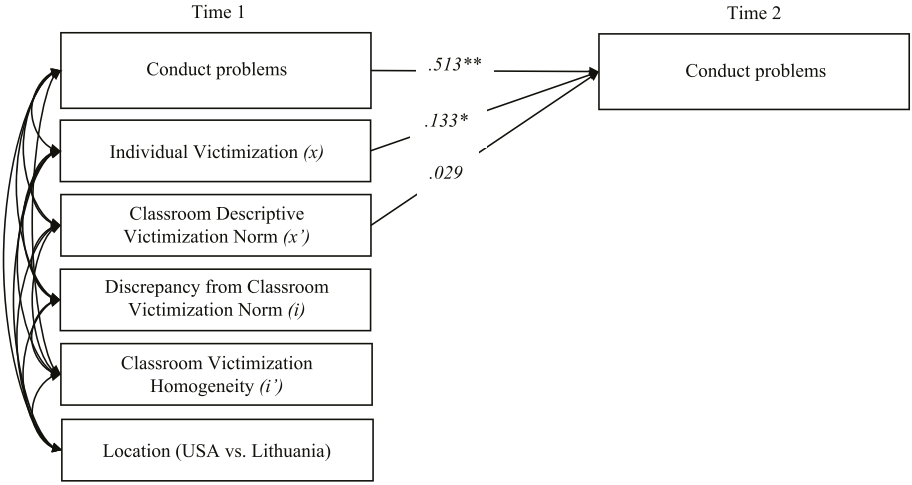
Note. *p < 0.05; **p < 0.01.

Figure 11. *Results from the path analysis: Self-reported physical victimization predicts self-reported loneliness. Longitudinal G-APIM contrast sub-model.*



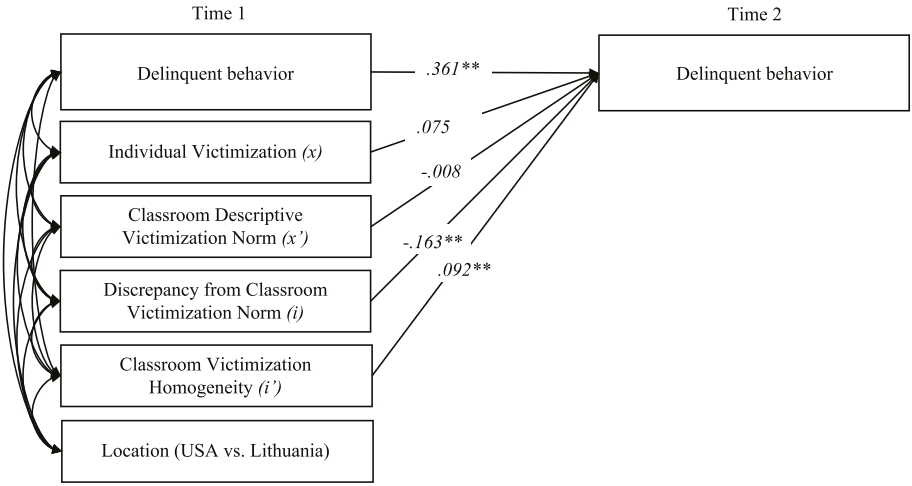
Note. *p < 0.05; **p < 0.01. In *contrast, sub*-models, paths *a* and *b* (from *x* and *x'*) are set to be equal but opposite of each other.

Figure S12. *Results from the path analysis: Self-reported relational victimization predicts self-reported conduct problems. Longitudinal G-APIM main effects sub-model.*



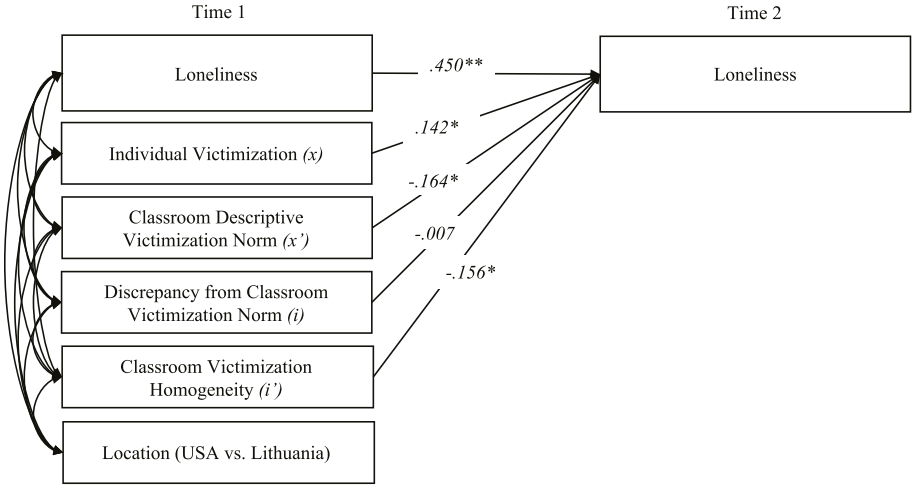
Note. *p < 0.05; **p < 0.01.

Figure S13. *Results from the path analysis: Self-reported relational victimization predicts self-reported delinquent behavior. Longitudinal G-APIM similarity contrast sub-model.*



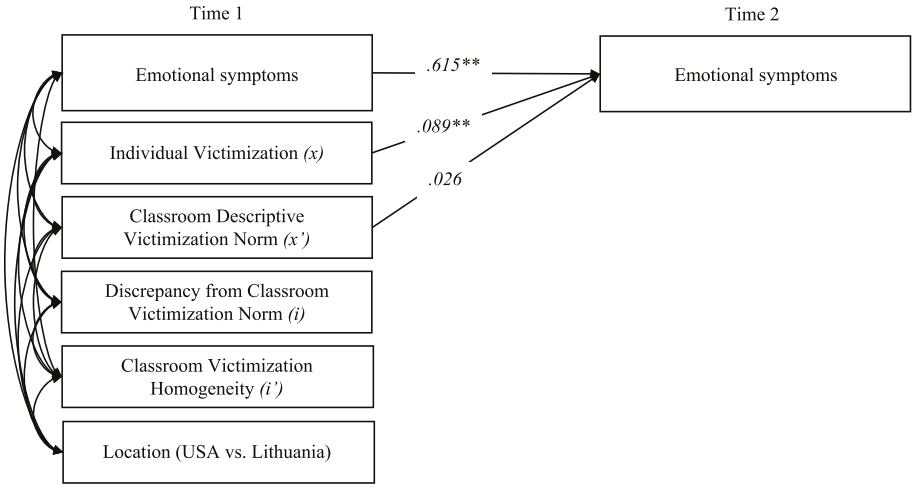
Note. *p < 0.05; **p < 0.01. In similarity contrast model *i* and *i'* paths are set to be equal but opposite of each other.

Figure S14. *Results from the path analysis: Self-reported relational victimization predicts self-reported loneliness. Longitudinal G-APIM complete sub-model.*



Note. *p < 0.05; **p < 0.01.

Figure S15. *Results from the path analysis: Self-reported relational victimization predicts self-reported emotional symptoms. Longitudinal G-APIM main effects sub-model.*



Note. *p < 0.05; **p < 0.01.

MYKOLAS ROMERIS UNIVERSITY

Gintautas Katulis

VICTIMIZED SOCIAL MISFITS: HOW DISCREPANCY FROM CLASSROOM VICTIMIZATION NORMS IS ASSOCIATED WITH EMOTIONAL AND BEHAVIORAL MALADJUSTMENT AMONGST EARLY ADOLESCENTS OVER TIME

Summary of Doctoral Dissertation
Social Sciences, Psychology (S 006)

Vilnius, 2025

The doctoral dissertation was written from 2018 to 2025 at Mykolas Romeris University according to the right to carry out doctoral studies provided to Vytautas Magnus University and Mykolas Romeris University under the order of the Minister of Education, Science and Sport of the Republic of Lithuania, dated 22 February 2019, No. V-160.

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The doctoral dissertation will be defended in the public meeting of the Psychology Science Council on 9th of May 2025, at 14:30 at Mykolas Romeris University, Room L-102.

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1. INTRODUCTION

1.1. Relevance of the study

It can be risky to be different (Wright et al., 1986). The impulses for competition are deep-rooted and observed throughout living species, often manifesting as acts of aggression against those that are different (Donegan, 2012). Schools often serve as environments in which the roles of the aggressor and the victim surface through the acts of bullying (Allanson et al., 2015). Despite valiant efforts to decrease bullying victimization in schools and interventions showing partial success, the phenomenon is still prevalent and not fully understood requiring further investigation (Smith, 2016). Discerning the causative factors and underlying risks in the process of victimization remains elusive due to its chaotic nature (Sullivant et al., 2003).

Global data paints a concerning picture: amongst adolescents aged 15-16 over 15% of students experience physical victimization from peers, whereas more than 21% are subjected to relational victimization (Hosozawa et al., 2021, OECD, 2019). Even higher victimization numbers can be seen globally amongst younger adolescents aged 12-15 (Biswas et al., 2020). The same trend can be observed in Eastern Europe and the United States (Hosozawa et al., 2021, OECD, 2019). Developed regions like Western Europe report comparatively reduced incidents of victimization averaging at around 10% among early adolescents, regardless, the prevalence is still far from zero (Biswas et al., 2020).

It is difficult to overstate the snowballing effects victimization may have on youth. These repercussions are not merely emotional - manifesting as diminished self-esteem (Tsaousis, 2016), heightened depressive symptoms (Desjardins & Leadbeater., 2011), feelings of loneliness (Giletta, 2018), instances of suicidal ideation (Turner et al., 2013). The enduring psychological consequences of bullying often correlate with persistent interpersonal challenges, that can impair academic achievements, professional productivity, and overall well-being (Stapinski et al., 2014). The ramifications of victimization extend beyond current effects on the well-being of the victim, imposing long-term economic burdens upon society: adult victims of bullying are less likely to be employed and accumulate less wealth and are more likely to require healthcare signifying the economic burden of victimization (Brimblecombe et al., 2018).

Interventions aiming to reduce peer victimization have reported promising outcomes in lessening instances of bullying and fostering a clearly safer environment for youth to develop (Evans et al., 2014). Western countries which instated comprehensive anti-bullying measures report diminished rates of victimization when contrasted with other regions (Ng et al., 2022) and successful interventions are noticed globally (Fraguas et al., 2021) as well as in Lithuania (Zuzevičiūte., 2023) and in the US (Gaffney et al., 2019). Unfortunately, success, while sought after, sometimes comes with unforeseen consequences. While many interventions succeeded in curbing bullying on a broad scale, an unintended consequence was unveiled: those children who continued

to face bullying experienced heightened feelings of isolation, showcasing further increased internalizing symptoms, loneliness, and depressive symptoms (Garandeau & Salmivalli, 2019), as well as higher levels of behavioral problems (Liu et al., 2021). Recent findings suggest that this effect might transcend classroom environment and work at a national level. Results indicate that in countries with lower victimization norms, those who remain victimized are worse off than the victims in countries with higher levels of victimization norms (Agyekum-Hene et al., 2024).

In classrooms with lower levels of victimization norms, victimized students not only suffer from victimization but also become social misfits, worsening their condition (Garandeau & Salmivalli, 2019). This presents two problems: firstly, interventions aimed at reducing victimization in a classroom may inadvertently worsen conditions for the remaining victims and secondly, schools and classes with low victimization norms may have misfit victims for whom the classroom atmosphere is far from healthy. A greater understanding of this phenomenon could pave the way for educators and policymakers, offering them discerning insights into addressing the unique struggles faced by children who, perhaps driven by isolated victimization, exhibit signs of loneliness or aggression (Huitsing et al., 2019; Liu et al., 2021). It is evident that reverting to a median level of victimization, in order to ensure no child feels alienated, is neither a practical nor morally justifiable solution. However, understanding how being a social outlier is associated with increases in behavioral and internalized problems is paramount in identifying potential mechanisms for assistance.

1.2. Scientific problem and novelty

The relationship between feeling out of place, being a "social misfit" and experiencing decreased peer acceptance has long been established in research (Wright et al., 1986). Yet, as anti-bullying initiatives gain traction and demonstrate their effectiveness, there's an emerging urgency to delve deeper into this dynamic, particularly in the context of what's termed the healthy context paradox (Garandeau & Salmivalli 2019). This paradox suggests that as general descriptive victimization norms decrease, those who remain victimized feel even more isolated, and experience more internalizing problems (Laninga-Wijnen et al., 2023c). While explorations into how discrepancy from descriptive classroom norms of victimization results in behavioral and emotional outcomes for children remain scarce, there's some evidence that the association between victimization and depressive or internalizing symptoms appears more pronounced in classrooms where victimization is less normative (Yun & Juvonen., 2020). On the other hand, the understanding of how deviating from classroom victimization norms relates to externalizing problems—like conduct problems or delinquency—remains limited. Testing the association between the discrepancy from classroom victimization norms and externalizing symptoms in a Western sample is a novelty of this study.

Another question previously unanswered on the topic of the healthy context paradox is the homogeneity of the classroom (Laninga-Wijnen et al., 2023c). Previous studies gauged the average classroom victimization norms as the average of the

classroom level of victimization (Gini et al., 2020). This ignores, however, the intricacies of similarity between the classmates. Consider two classrooms with identical average victimization levels. Their variability might diverge significantly. In one, all students might perceive victimization as moderate. On the other, half the students might perceive intense victimization while the remainder feel hardly any. Such distinctions in group homogeneity are addressed in this study through the employment of the Group Actor Partner Interdependence Model (G-APIM) (Kenny et al., 2012). Additionally, it remains ambiguous whether prior investigations factored in the individual being observed when calculating average classroom victimization (Garandeau & Salmivalli 2019; Liu et al., 2021). A singular individual's experience could markedly sway the average, either elevating or diminishing it. This is addressed in this study by calculating the classroom context separately for each individual in the class, excluding the focal individual from the calculation of classroom norms.

Furthermore, there's a notable scarcity of studies within the realm of the healthy context paradox that concurrently examine both peer- and self-reported victimization and outcomes. Only two previous studies that stemmed from China used both self- and peer-reported measures of victimization and found significant results supporting the healthy context paradox predicting internalizing (Xiong et al., 2023) and externalizing problems (Zhao & Li, 2022) for self-report but not peer-reported data in both cases. This suggests that victimization measure type may play a role. It should be acknowledged that peer- and self-reported victimization are often weakly correlated (Oldenburg et al., 2015) and are also often associated with different outcomes (Košir et al., 2020). Therefore, another novelty of this study is that it probes the associations between discrepancy from classroom victimization norms and both internalizing and externalizing problems using both self- and peer-report data.

Additionally, no prior literature regarding the healthy context paradox examined both physical and relational victimization and their associations with internalizing and externalizing problems, specifically as a result of deviations from the typical classroom norms surrounding victimization. This study utilizes different types of victimization, as majority of previous studies measured victimization by merging physical and relational victimization together (Liu et al., 2021; Pan et al., 2021; Huitsing et al., 2019; Laninga-Wijnen et al., 2023c) this study looks at them separately. This is important because different types of victimization are associated with different types of outcomes, as physical victimization is more associated with externalizing problems and relational victimization more associated with internalizing problems (Sullivan et al., 2006) the same pattern could be distinguished in healthy context paradox. Additionally, gender differences could be revealed as the tendency is that boys are more inclined for physical victimization and girls are more inclined towards relational victimization (Herge et al., 2016).

Another novel aspect of this research is its cross-cultural approach, integrating samples from both Lithuanian and American student populations, thereby offering an enriched perspective and the possibility to validate findings across diverse settings. Considering that generalizability and replicability of findings in the field of psychology

has been considered an issue (Anvari & Lakens, 2018), a combined sample offers immediate replication of the findings, suggesting that the findings may be more replicable.

Finally, this study uses a longitudinal approach to test the effects of healthy context paradox on changes in internalizing and externalizing symptoms. The majority of research in the field used cross-sectional data to look at concurrent associations (Yun & Juvonen, 2020; Liu et al., 2021; Huang et al., 2023a; Xiong et al., 2023) and while some did find longitudinal associations supporting the assumption that victimized social misfits are likely to experience increases in internalizing symptoms (Laninga-Wijnen et al., 2023c, Pan et al., 2021) no such research supporting increases in externalizing symptoms. The longitudinal approach allows us to discern the temporal relationships between victimization as a social misfit and subsequent changes in both internalizing and externalizing symptoms over time.

1.3. The Aim, Research questions, defense statements

1.3.1. Research aim

The main aim of this dissertation is to test whether dissimilarity to the descriptive classroom norms of physical and relational victimization is associated with increases in internalizing problems (loneliness and emotional symptoms) and externalizing problems (disruptiveness, physical aggression, delinquent behavior, and conduct problems) throughout the year in a combined sample of Lithuanian and USA early adolescence.

1.3.2. Research question

What is the longitudinal association between individual physical and relational victimization, classroom average levels of victimization, discrepancy from the descriptive classroom victimization norms, and homogeneity of the classroom on internalizing problems and externalizing problems?

1.3.3. Defense statements

Discrepancy from classroom victimization norms is associated with an increase in levels of externalizing and internalizing problems.

Victimized social misfits who are more discrepant from descriptive classroom norms of physical victimization experience increases in externalizing problems later in the year.

Victimized social misfits, who are more discrepant from descriptive classroom norms of relational victimization experience increases in internalizing problems later in the year.

1.4. Definition of terms

- **Bullying:** Intentional, repeated, negative behavior by one or more individuals directed at a person who struggles to defend themselves. (Olweus & Limber, 2010)
- **Conduct Problems:** Manifestations of aggressive behavior, including fighting, lying, cheating, and opposing others. (Olweus, 2013; Kim et al., 2006)
- **Delinquent Behavior:** Acts characterized by truancy, theft, and property damage. (Bendixed & Olweus, 1999)
- **Descriptive classroom norms:** The prevalence of specific behaviors within a classroom setting. These norms are typically measured as the average frequency or intensity of each behavior among students within a particular classroom (Shin, 2017)
- **Discrepancy from descriptive Classroom Norms:** Often termed as "dissimilarity", this describes the deviation of an individual from the descriptive norms of a classroom regarding a specific trait, such as victimization. It reflects the average difference of an individual from the rest of the students in a class concerning the trait of interest (Kaufman et al., 2022)
- **Disruptiveness:** Behavior that is aggressive, oppositional, and hyperactive within a classroom environment. (Stormshak et al., 2000)
- **Group-Actor Partner Interdependence Model (GAPIM):** A methodological framework that facilitates the simultaneous modeling and analysis of intricate relationships between individual and group characteristics. (Garcia et al., 2015; Kenny and Garcia, 2012; Gommans et al., 2017)
- **Group-Person Dissimilarity Model:** This model proposes that associations between specific traits and behaviors and their outcomes in a group (e.g., behavioral or social outcomes like status) are mediated by the degree of similarity or dissimilarity between the individual and the group regarding that trait. (Wright, 1986)
- **Healthy Context Paradox:** A phenomenon showing that students victimized in groups with low victimization norms are worse off than those victimized in contexts with higher victimization norms. (Garandeau & Salmivalli, 2019)
- **Emotional Symptoms:** Refers to a set of psychological symptoms identified by Goodman's "Emotional Symptoms Scale". These symptoms include frequent complaints of physical ailments without apparent causes (e.g., headaches or stomachaches), a consistent sense of worry, tendencies to feel unhappy or tearful, apprehension or over-dependence in new situations, and a propensity towards unwarranted fears. Individuals exhibiting these symptoms often struggle with underlying emotional distress or related issues. (Goodman, 1997)
- **Loneliness:** A state characterized by a distressing sense of undesired social isolation, typically a result of perceived relational deficits. (Perlman & Peplau, 1981)

- **Physical Aggression:** Aggressive actions by a child, including hitting, pushing, or breaking objects. (Craig, 1998)
- **Physical Victimization:** The experience of receiving intentional physical harm or being threatened with such harm. This encompasses acts like hitting, punching, slapping, kicking, or any other physical assault. (Kennedy, 2020)
- **Relational Victimization:** Also known as social or relational aggression, this refers to behaviors that harm others by damaging or threatening their relationships or feelings of social acceptance. Such behaviors can include spreading rumors, gossiping, socially excluding others, or manipulating friendships (Kennedy, 2020)
- **Victimization:** A concept often associated with the experience of being bullied. While bullying emphasizes the actions of the aggressor, victimization centers on the experience of the one subjected to these actions. Victimization covers a wide range of harmful actions directed at an individual, from physical and verbal attacks to relational and social ostracization (Geel et al., 2016).

2. LITERATURE REVIEW

During early adolescence, children undergo significant transitions. From a life predominantly dictated by adult influence, they shift towards self-driven and peer-oriented environments, attaching heightened importance to friendships (Laursen & Hartl, 2013). This period witnesses their evolution from impulsive physical behaviors to more organized and relationally driven interactions. Such developmental shifts also manifest in how victimization occurs, characterized by a decline in physical victimization and an uptick in relational forms (Underwood et al., 2009). As adolescents grapple with an intensified need for belonging, not all manage to seamlessly fit in, leading some to stand out as 'misfits.' In situations where students find themselves misaligned with prevalent group or classroom norms, they risk becoming outliers, often resulting in their marginalization (Wright et al., 1986). It's noteworthy that no specific traits assure universal acceptance. Instead, group dynamics largely dictate the desirable traits, making adolescence a challenging phase (Rubin et al., 2008). The downside of standing out, rooted in dissimilarity, extends beyond mere peer rejection; it often translates into negative experiences, including peer victimization.

Peer victimization profoundly is associated with students' well-being, correlating reciprocally with both internalizing and externalizing problems. Victimization manifests in multiple forms, ranging from physical actions such as pushing or hitting, to relational forms like teasing or group exclusion (Turner et al., 2006). Despite various interventions showing positive results (Laninga-Wijnen et al., 2021), victimization remains a pervasive concern among adolescents worldwide, with over 30% reportedly facing frequent victimization by their peers (Hosozawa et al. 2021).

Victimization is multifaceted and doesn't occur in a vacuum. It's shaped by a combination of individual and group dynamics. Factors influencing victimization range from group norms around victimization, popularity, and defending victims (Laninga-Wijnen et al., 2021), to individual traits like physical vulnerability, internalized symptoms (Hodges & Perry, 1999), inadequate problem-solving capabilities, social skills deficits (Cook et al., 2010), disruptive tendencies, emotional reactivity (Reijntjes et al, 2011), or even diminished social or academic standing (Wynne & Joo, 2011). Children victimized by peers face almost certain adverse outcomes unless fortified by a robust psychological framework for managing emotions (Kaynak et al., 2015) or backed by substantial social support (Isaacs et al., 2008). These negative effects typically manifest as internalizing or externalizing problems.

Victimization's influence on internalizing problems spans a wide spectrum, including loneliness, school anxiety, depressive symptoms, generalized anxiety, diminished self-esteem, suicidal ideation and behaviors, illicit drug use, and impacts on self-concept (Reijntjes et al., 2010). Unfortunately, these ramifications tend to persist long after the victimization has ceased (Moore et al., 2017). As victims internalize their experiences, some begin to blame themselves, rationalizing that they somehow deserve such mistreatment. This internalized view warps their self-concept, aligning it with the derogatory treatment they've endured (Huitsing et al., 2012), often culminating in

eroded self-esteem and elevated depressive symptoms (Garandeau & Salmivalli, 2019). These victims employ various coping mechanisms in their adversarial environments (Rose & Monda-Amaya, 2012).

Peer victimization leads many to adopt more passive strategies, escalating to delinquency (Walters, 2021) and even physical aggression (Sullivan et al., 2006). In attempts to evade the hostile school environment, truancy becomes an escape. Yet, this often places them in company with fellow truants, pushing them further into delinquency to alleviate their emotional distress (Rocque et al., 2017; Hanish & Guerra, 2002). Upon returning to school, these students are ill-prepared academically and, coupled with punitive actions from educators, find themselves in a negative feedback loop. Reacting to perceived injustices, they may become disruptive in class (Juvonen & Graham, 2014; Kaynak et al., 2015). Struggling with emotional regulation or attempting to assert their position, they may lash out at peers, mirroring the very behaviors of those who victimized them. This inability to navigate social relationships can lead to further conduct issues and aggressiveness (Kim et al., 2006). Due to their history, these individuals often interpret situations as more threatening than they are, making them prone to unnecessary aggression and, ironically, increasing their susceptibility to future victimization (Burgess et al., 2006).

After successful interventions led to a decrease in victimization, an unintended negative side effect emerged, known as the "healthy context paradox." This paradox suggests that while anti-bullying interventions are overall beneficial in reducing bullying and victimization rates, they can inadvertently harm the remaining victims in settings where bullying becomes less prevalent. In such contexts, the few remaining victims become even more conspicuous as "social misfits" when juxtaposed against their non-victimized peers. This heightened dissimilarity is linked with worse social and emotional outcomes for these victims compared to those in contexts with more prevalent bullying (Garandeau & Salmivalli, 2019).

Several mechanisms underlie this phenomenon. In low-bullying environments, victims often face greater rejection, enjoy lower social status, and struggle to form friendships. Associating with someone perceived as an "outlier" becomes a risk. Additionally, these victims are more inclined to blame themselves for their plight when they perceive that few share their experiences, leading to damage to their self-concept (Pan et al., 2021). The healthy context paradox is well-documented in various studies, especially regarding internalizing problems like anxiety and depression (Garandeau & Salmivalli, 2019). However, there's a gap in research when it comes to externalizing problems. Some support does exist for this aspect (Liu et al., 2021), suggesting that the nature of victimization, such as physical aggression, may cause victims to exhibit aggressive reactions (Casper et al., 2017).

Measuring peer victimization involves distinguishing between physical and relational forms, as each is linked to different psychological outcomes: physical victimization often correlates with externalizing behaviors, while relational victimization is more associated with internalizing problems (Casper & Card, 2017). Victimization is typically assessed through self-reported or peer-reported methods, each with strengths

and weaknesses. Self-reports may capture internalizing symptoms better, reflecting the victim's subjective experience, but are prone to biases, whereas peer-reports offer a more reliable, objective view of victimization within social contexts (Bouman et al., 2012; Baly et al., 2014). These differences are crucial when studying phenomena like the "healthy context paradox," where inconsistencies in research suggest that the sense of being a social misfit, rather than the reality, might drive internalizing symptoms (Huitsing et al., 2019; Pan et al., 2021). Therefore, further research that carefully distinguishes between types of victimization and reporting methods is essential to gain clearer insights into these dynamics.

For our study, we employ the Group Actor-Partner Interdependence Model (G-APIM). This model offers a robust framework for simultaneously assessing the effects of individual victimization and classroom norms on internalizing and externalizing outcomes (Kenny & Garcia, 2012). By factoring out the individual when measuring classroom norms, G-APIM sidesteps issues like using personal perceptions as stand-ins for group dynamics (Garcia et al., 2015). Moreover, it facilitates the examination of both the deviation from classroom norms and the uniformity in victimization. It's a fitting approach to probe the complexities of the healthy context paradox, offering a comprehensive methodology for thorough exploration (Kenny & Garcia, 2012).

2.1. Research Hypotheses

Students who are more discrepant from descriptive classroom norms in physical and relational victimization will experience higher levels of externalizing problems and internalizing problems later in the year:

- Higher discrepancy from peer-reported physical victimization classroom norms and higher classroom homogeneity is associated with increases in peer-reported disruptiveness and physical aggression later in the year.
- Higher discrepancy from peer-reported physical victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported emotional symptoms and loneliness later in the year.
- Higher discrepancy from peer-reported relational victimization classroom norms and higher classroom homogeneity is associated with increases in peer-reported disruptiveness and physical aggression later in the year.
- Higher discrepancy from peer-reported relational victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported emotional symptoms and loneliness later in the year.
- Higher discrepancy from self-reported physical victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported conduct problems and delinquent behavior later in the year.
- Higher discrepancy from self-reported physical victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported emotional symptoms and loneliness later in the year.

- Higher discrepancy from self-reported relational victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported conduct problems and delinquent behavior later in the year.
- Higher discrepancy from self-reported relational victimization classroom norms and higher classroom homogeneity is associated with increases in self-reported emotional symptoms and loneliness later in the year.

3. RESEARCH METHODS

3.1. Participants

The study sample included a total of 706 participants aged 9 to 14 years old (*M*=11.8, *SD*=1.131). The total sample used in the study comprised 367 boys and 339 girls from Lithuania (n=541) and the USA (n=165). The students spanned grades 4 (85 boys, 80 girls, *SD*age=0.445), 5 (166 boys, 137 girls, *SD*age=0.392), 6 (47 boys, 41 girls, *SD*age=0.415), and 7 (71 boys, 79 girls, *SD*age=0.444). Participants were distributed across 39 classrooms: 10 fourth-grade (7 in Lithuania, 3 in the USA), 16 fifth-grade (9 in Lithuania, 7 in the USA), 5 sixth-grade (all from Lithuania), and 8 seventh-grade (all from Lithuania) classrooms were included in the sample.

3.2. Procedure

Data from the Lithuanian sample was collected by inviting all 4th-7th graders (45 classrooms, 29 of which had participation rates above 60%) in a communal Lithuanian town of Utena to participate in the study, contingent on written parental consent and student assent. Trained personnel administered questionnaires via computer tablets in a quiet classroom setting throughout the 2021-2022 academic year, in two waves four months apart (October 2021, February 2022). The Mykolas Romeris University ethics committee (No. 6/-202) approved the study. A similar approach was used for the USA sample. With written parental approval, participating students completed questionnaires on tablets in a quiet classroom. Data collection occurred in September 2021 and January-February 2022 by a trained research team. The research was approved by the university Institutional Review Board (#135501-16). Students across all 14 4th-5th grade classrooms were invited to participate; 10 classrooms had participation rates above 60% (M=78.7%, *SD*=9.8%).

3.3. Measures

3.3.1. Peer report measures

Peer-reported physical and relational victimization, physical aggression, and disruptiveness were measured using peer-reported nomination data. Participants completed a peer assessment questionnaire which consisted of a roster of questions on which they identified the names of classmates who best fit a description. Unlimited same and other-sex nominations were permitted. *Physical victimization* was measured by asking students to nominate unlimited classmates who meet the description of "someone who is hit or pushed by others". *Relational victimization* was measured by asking students to nominate classmates who meet the description of "Someone who is called names or made fun of by others". *Disruptiveness* was measured by asking students to nominate unlimited classmates who meet the description of "Someone

who acts out or disrupts class". *Physical aggression* was evaluated by asking students to nominate unlimited classmates who meet the description of "Someone who fights or hits others".

3.3.2. Self-report measures

The average score from all the items included in the measure was used. All items were on a scale from 1 to 5 (*1 – never, 5 – always).* Confirmatory Factor Analysis (CFA) was implemented using the Maximum Likelihood (ML) function to evaluate the validity of self-reported measures. Additionally, longitudinal measurement invariance analysis was performed to confirm that the instruments perform equally across different time points (Steenkamp & Baumgartner, 1998). In all cases, CFA was acceptable, and instruments performed equally across different time points. Cronbach's alpha for self-report measures ranged between .422 and .940.

Physical and Relational Victimization. For self-report measures of physical victimization and relational victimization, we used three items on physical victimization (e.g., How often has another child hit, kicked, or shoved you?) and three items on relational victimization (e.g., How often has another child called names or made fun of you?) from the "Peer Victimization: Social Experiences Questionnaire" (Crick & Grotpeter, 1996).

Conduct problems and emotional symptoms. For self-reported measurements of conduct problems and emotional symptoms, we used items from the Strengths and Difficulties Questionnaire (Goodman, 1997). For conduct problems, participants responded to 5 questions regarding various behavioral problems (e.g., I break rules at home, school, or elsewhere). For emotional symptoms, 6 items corresponding to various emotional issues were used (e.g. I worry a lot).

Delinquent behavior. For delinquent behavior, we used 4 items based on measures by Bendixen & Olweus (1999). Participants responded to questions describing delinquent behavior (e.g., Taken things from a store without paying?).

Loneliness. Participants completed an abbreviated 3-item loneliness scale (Parker & Asher, 1993). Participants responded to three items that corresponded to their sense of loneliness (e.g., I feel alone at school).

3.4. Plan of analysis

Group Actor-Partner Interdependence Model (G-APIM). To test the hypotheses—that a higher discrepancy from classroom descriptive norms of victimization (i.e., being victimized in classrooms with lower victimization norms) increases the likelihood of exhibiting externalizing problem behaviors (Disruptiveness, conduct problems, delinquent behavior, physical aggression) and experiencing more internalizing problems (Emotional symptoms and loneliness) later in the year—the Group Actor-Partner Interdependence Model (G-APIM; Garcia et al., 2015; Kenny and Garcia, 2012) was implemented. A standard approach to G-APIM analysis is to compare several

sub-models of G-APIM with one another and choose the best-fitting one (Kaufman et al., 2022).

The G-APIM variables. G-APIM is predicated upon four key predictor variables, generated from the principal predictor variable and its classroom variations: *x, x', i*, and *i'*. See Figure 1 for reference. The variable *x* (Individual victimization) in this case describes the individual score on the predictor variable. The variable *x'* (Classroom descriptive victimization norm) describes the classroom's average level of the predictor variable (victimization), excluding the focal individual. The third is *i* (discrepancy from classroom victimization norm), which represents the dissimilarity between the individual and the group. The fourth variable is *i'* (Classroom victimization homogeneity) which defines the homogeneity of the group within the classroom, in other words, how high of a variance there is in the classroom without the individual.

The G-APIM sub-models. When performing a comparison of the sub-models, all of the sub-models included all the variables of the G-APIM. When testing the assumption that certain predictors aren't needed, only the paths from those predictors to the outcome variable were set to 0, with the variables still included in the sub-model as Time 1 covariates.

The procedure started with the simplest *empty sub-model* which involves only an autoregressive path (*r*). The second sub-model is the *Main Effects Model*: This sub-model considers both actor effects (*a*) path, stemming from Individual victimization (*x*) and group effects (*b*) path, stemming from Classroom descriptive norms of victimization (*x'*). The third sub-model is the *Person-fit Model*: In addition to the *main effects* sub-model (i.e., paths *a* and *b*), this sub-model includes the discrepancy effects path (*c),* representing the difference between an individual's level of victimization and the average level of victimization in their classroom. The fourth sub-model is the *Complete Sub-model* (Figure 1): Extending beyond the person-fit sub-model, this sub-model incorporates classroom homogeneity effects path *(d)* describing the similarity of others in terms of victimization.

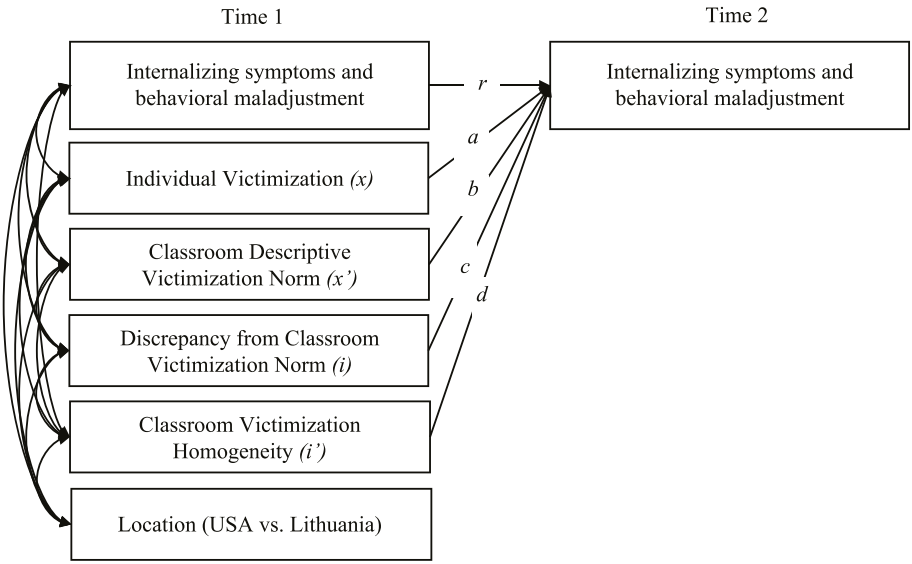
Additional paths were tested as well. The *contrast sub-model* in which the actor effects path (*a*) and the group effects path (*b*) are set to be equal, but with opposite valence of each other. The *similarity contrast* sub-*model* includes all 4 G-APIM variables, but the discrepancy from the classroom norm effects (*c*) and homogeneity of the group effects paths (*d*) are set to be opposite of each other. Finally, *full contrast* sub-model where both the actor effects path (*a*), and group effects path (*b*) are set to be equal but opposite of each other, as well as discrepancy effects path (*c*) and homogeneity effects path (*d*) are also set to be equal but opposite of each other.

Following the combined procedure of Gommans et al., (2017) and Kaufman et al., (2022) this study compared the model fit based on SABIC (Sample-Size Adjusted Bayesian Information Criterion) and RMSEA fit indices. We compared SABIC and RMSEA model fit scores to select the best-fitting sub-model, with the caveat that the additional path in a sub-model must be statistically significant (Garcia et al., 2015). For the chosen final models, minimum requirements were established based on Hu and Bentler (1999) guidelines: The Tucker–Lewis Index (TLI) and the Comparative Fit

Index (CFI) should be as close to 1 and considered very good if above 0.95. The Root Mean Square Error of Approximation (RMSEA) should be close to 0, best below 0.06, and SRMR (Standardized Root Mean Square Residual) should be below 0.08.

The G-APIM analysis was conducted with Mplus 8.4 (Muthén & Muthén, 1998-2018) using the ML function. Supplemental multiple-group contrasts were performed. These analyses examined whether direct and indirect paths differed between boys and girls, primary and secondary school students, and USA and Lithuania students.

Figure 1. *Conceptual longitudinal G-APIM complete Sub-model*



Note. The figure depicts the longitudinal *Complete* sub-model that includes autoregressive path (*r*), actor effects path (*a*), group effects path (*b*), discrepancy effects path (*c*), and homogeneity path (*d*), and location as a covariate. *Similarity contrast* sub-model includes all depicted paths but the paths *c* and *d* are set to be equal in size but opposite in effect direction. *The full contrast* sub-model includes all depicted paths but the paths *a* with *b*, as well as *c* with *d* are set to be equal in size but opposite in the direction effect.

4. RESULTS

4.1. Correlational analysis

Table 1 presents correlation (Pearson's *r*) coefficients between the variables. Most of the variables, expectedly, correlated with each other. It could be noted that Time 1's conduct problems did not correlate with peer-reported relational victimization (*r*=.058 [-.018; 136]), time 1 physical aggression did not correlate with loneliness (*r*=.059 [-.041; 162]), and emotional symptoms did not correlate with peer-reported physical victimization (*r*=.069 [-.016; 158]).

For time 2 variables, self-reported loneliness did not correlate with peer-reported disruptiveness (*r*=.031 [-.063; 120]) and peer-reported physical aggression (*r*=.012 [-.079; 116]). Peer-reported physical victimization did not correlate with self-reported emotional symptoms (*r*=-.026 [-.103; 078]). Significant correlations between self-reported items and peer nominations were weak, ranging from *r*=.081 to *r*=.247.

4.2. Gender, school level, and location differences

Separate 2 (time) by 2 (gender); 2 (time) by 2 (primary and secondary school), and 2 (time) by 2 (location) ANOVAs were conducted with all the variables as dependent variables. Time was the repeated measure. There was a statistically significant gender × time interaction on peer-reported physical victimization (F(1, 698)=8.042; p=.003; d=.21). Physical victimization decreased for boys (*F*(1, 327)=12.408, p=.000; d=.389), but not for girls (*F*(1, 300)=0.036, *p*=.849; d=.000). A significant middle/primary school x time interaction emerged for emotional symptoms (*F*(1, 639)=13.843, *p*=.004; d=.292). Emotional symptoms decreased for primary school students (*F*(1, 253)=5.515, *p*=.020; d=.292), but not for secondary school students (*F*(1, 386)=2.885, *p*=.090; d=.167). Differences emerged for self-reported physical victimization (*F*(1, 621)=7.291, *p*=.007; d=.220) which also decreased for primary school students (*F*(1, 235)=6.275, *p*=.013; d=.326) but not for secondary school students (*F*(1, 386)=.810, *p*=.369; d=.089). Differences emerged for peer-reported physical victimization (*F*(1, 698)=6.158, *p*=.013; d=.190) which decreased for primary school students (*F*(1, 277)=10.961, *p*=.001; d=.397) but did not change for secondary school students (*F*(1, 421)=1.041, *p*=.308; d=.089). Differences emerged for peer-reported relational victimization (*F*(1, 698)=9.302, *p*=.002; d=.229) which increased for primary school students (*F*(1, 277)=4.690, *p*=.031; d=.263) and decreased for secondary school students (*F*(1, 421)=4.244, *p*=.040; d=.201).

Table 1. *Correlations and autocorrelations of included Time 1 and Time 2 variables*

	1	2	3	4	5	6	7	8	9	10
1. SR Conduct problems	.578**	.427**	.119**	.143**	.503**	.399**	.118**	.500**	.058	.500**
2. SR Delinquent behavior	.533**	.421**	.109*	.116**	.128**	.222**	.176**	.387**	.137**	.314**
3. PR Disruptiveness	.247**	.222**	.886**	.813**	-.091*	.040	.490**	.129**	.355**	.108**
4. PR Physical aggression	.225**	.149**	.787**	.850**	-.095*	.059	518**	.219**	.427**	.135**
5. SR Emotional symptoms	.502**	.205**	-.136**	-.139	.659**	.548**	.069	.355**	.046**	.442**
6. SR Loneliness	.416**	.266**	.031	.012	.557**	.543**	.169**	.458**	.229**	.624**
7. PR Physical Vict.	.064	.096*	.307**	.368**	-.026	.120**	.562**	.328**	.633**	.248**
8. SR Physical Vict.	.530**	.430**	.259**	.286**	.296**	.404**	.256**	.541**	.273**	.729**
9. PR Relational Vict.	.127**	.132**	.223**	.244**	.081	.215**	.654**	.275**	.647**	.266**
10. SR Relational Vict.	.503**	.371**	.196**	.196**	.388**	.560**	.233**	.733**	.293**	.563**

Note. N=706. Time 1 results are presented above the diagonal. Time 2 results are presented below the diagonal. Autocorrelations are presented on the diagonal. Confidence intervals depicted in supplemental table S21.

SR = Self-report; PR = Peer report; Vict. = Victimization;

**p<.05. **p<.01.*

4.3. Victimization Predicting Adjustment Problems: Results from Group Actor Partner Interdependence Models

4.3.1. Peer-reported physical victimization predicting peer-reported disruptiveness, physical aggression, self-reported loneliness, and emotional symptoms

Peer-reported Disruptiveness. For peer-nominated physical victimization predicting peer-reported disruptiveness, the best fitting model was *similarity contrast* ($\chi 2(2)=0.069$, p=.966; *RMSEA*=.000[.000;.000]; *CFI*=1; SRMR=.001). The sub-model involves paths (*a, b, c, d*) from all 4 G-APIM predictor variables (*x, x', i, and i'*) but discrepancy and homogeneity paths (*c* and *d*) are set to be equal but opposite to each other, checking the assumption that disruptiveness is highest for students who are discrepant from descriptive classroom norms while other students in the class are more homogenous. Table 2 shows the results. Time 1 discrepancy from peer-reported physical classroom victimization norms and Time 1 classroom victimization homogeneity predicted Time 2 disruptiveness. The more dissimilar students were to their peers on initial peer-reported physical victimization in more homogenous classrooms (excluding the focal individual) in terms of initial victimization, the more individual student disruptiveness increased from Time 1 to Time 2. This confirmed the misfit hypothesis.

Peer-reported Physical aggression. For peer-nominated victimization predicting Physical aggression, the best-fitting sub-model was *the person-fit* sub-model ($\chi 2(2)=0.429$, p=.807; *RMSEA*=.000[.000;.046]; *CFI*=1; SRMR=.001). The sub-model involves paths (*a, b, c)* from 3 G-APIM predictor variables (*x, x', i*). Table 2 shows the results. Time 1 discrepancy from classroom victimization norms and Time 1 lower classroom descriptive victimization norms predicted Time 2 peer-reported physical aggression. The more dissimilar students were to their peers on initial peer-reported victimization, the more their physical aggression increased from Time 1 to Time 2. The lower the classroom descriptive victimization norms (excluding the focal individual) were for initial physical victimization, the more individual student peer-reported physical aggression increased from Time 1 to Time 2. This confirms the misfit hypothesis.

Table 2. *G-APIM results from the best fitting sub-models: Peer-reported physical victimization predicts peer-reported: disruptiveness and physical aggression and self-reported: loneliness and emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Disruptiveness (peer report).			
Similarity contrast sub-model			
Disruptiveness (peer report) (T1)	**.863**	**[.837; .889]**	**.000**
Individual Victimization (*x*)	-.058	[-.139; .022]	.156
Classroom Descriptive Victimization Norm (*x'*)	-.006	[-.053; .042]	.812
Discrepancy from Classroom Victimization Norm (*i*)	**-.116**	**[-.197; -.036]**	**.005**
Classroom Victimization Homogeneity (*i'*)	**.064**	**[.019; .108]**	**.005**
Outcome: Time 2 Physical aggression (peer report)			
Person fit sub-model			
Physical aggression (T1)	**.767**	**[.730; .803]**	**.000**
Individual Victimization (*x*)	-.054	[-.135; .026]	.183
Classroom Descriptive Victimization Norm (*x'*)	**-.054**	**[-.098; -.011]**	**.014**
Discrepancy from Classroom Victimization Norm (*i*)	**-.193**	**[-.274; -.112]**	**.000**
Outcome: Loneliness (Self-report)			
Empty sub-model			
Loneliness (T1)	**.544**	**[.489; .599]**	**.000**
Outcome: Emotional symptoms (self-report)			
Complete sub-model			
Emotional symptoms (T1)	**.650**	**[.605; .695]**	**.000**
Individual Victimization (*x*)	-.042	[-.177; .093]	.542
Classroom Descriptive Victimization Norm (*x'*)	**.173**	**[.006; .285]**	**.003**
Discrepancy from Classroom Victimization Norm (*i*)	.044	[-.137; .450]	.531
Classroom Victimization Homogeneity (*i'*)	**.147**	**[-.209; -.004]**	**.014**

Note: N=706 All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate. In similarity contrast, sub-model paths c and d (from i and i') are set to be equal but opposite of each other.

Results significant at p<.05 in bold.

Self-reported loneliness. For peer-nominated victimization predicting self-reported loneliness, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=4.994$, p=.416; *RMSEA*=.000[.000;.052]; *CFI*=1; SRMR=.008). The sub-model suggests that neither peer-reported physical victimization nor the group composition of the variable predicts changes in loneliness. This suggests that neither individual physical victimization, nor classroom descriptive victimization norms, nor discrepancy from the classroom victimization norms nor homogeneity of the classroom victimization norm significantly predict changes in loneliness. These findings do not align with the misfit hypothesis.

Self-reported emotional symptoms. For peer-nominated victimization predicting self-reported emotional symptoms, the best-fitting sub-model was *the complete* sub-model ($\chi 2(1)=0.135$, p=.713; *RMSEA*=.000[.000;.072]; *CFI*=1; SRMR=.002). The sub-model included paths (*a, b, c, d*) from all 4 G-APIM predictor variables (*x, x', i, and i'*). Table 2 shows the results. Time 1 classroom descriptive victimization norms and Time 1 classroom victimization homogeneity predicted Time 2 self-reported levels of emotional symptoms. The higher the classroom descriptive victimization norms and the higher the homogeneity of the group, the more self-reported emotional symptoms increased from Time 1 to Time 2. These findings do not support the misfit hypothesis.

4.3.2. Peer-reported relational victimization predicting peer-reported disruptiveness and physical aggression and self-reported loneliness, and emotional symptoms

Peer reported disruptiveness. For peer-nominated relational victimization predicting peer-reported disruptiveness, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=9.896$, p=.078; *RMSEA*=.037[.000;.071]; *CFI*=.996; SRMR=.010). This model included only the autoregressive path (*k*) from Time 1 disruptiveness to Time 2 disruptiveness, but all the G-APIM variable paths (*a, b, c,* and *d*) were set to 0. This suggests that neither individual relational victimization, classroom descriptive victimization norms, the discrepancy from the classroom victimization norms, or homogeneity of the classroom victimization norm significantly predicts changes in peer-reported disruptiveness. These findings do not align with our hypothesis.

Peer reported physical aggression. For peer-nominated relational victimization predicting self-reported physical aggression, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=8.492$, p=.131; *RMSEA*=.031[.000;.067]; *CFI*=.996; SRMR=.012). This model included only the autoregressive path from Time 1 physical aggression to Time 2 physical aggression, but all the G-APIM variable paths (*a, b, c,* and *d*) were set to 0. These findings do not align with our hypothesis.

Table 3. *G-APIM results from the best fitting sub-models: Peer-report relational victimization predicts peer-reported disruptiveness, physical aggression and self-reported loneliness, and emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Disruptiveness (peer report).			
Empty sub-model			
Disruptiveness (peer report) (T1)	**.886**	**[.870; .901]**	**.000**
Outcome: Time 2 Physical aggression (peer report)			
Empty sub-model			
Physical aggression (T1)	**.835**	**[.812; .857]**	**.000**
Outcome: Loneliness (Self-report)			
Full contrast sub-model			
Loneliness (T1)	**.528**	**[.471; .586]**	**.000**
Individual Victimization (*x*)	-.156	[-.342; .031]	.102
Classroom Descriptive Victimization Norm (*x'*)	.051	[-.010; .113]	.102
Discrepancy from Classroom Victimization Norm (*i*)	**-.229**	**[-.415; -.043]**	**.016**
Classroom Victimization Homogeneity (*i'*)	**.105**	**[.020; .190]**	**.016**
Outcome: Emotional symptoms (self-report)			
Empty sub-model			
Emotional symptoms (T1)	**.654**	**[.610; .698]**	**.000**

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate.

Results significant at p<.05 in bold.

Self-reported loneliness. For peer-nominated relational victimization predicting self-reported loneliness, the best-fitting sub-model was *the full contrast* sub-model ($\chi 2(3)=0.274$, p=.964; R*MSEA*=.000[.000;.000]; *CFI*=1; SRMR=.002). The *full contrast* sub-model involves paths (*a, b, c, d*) from all 4 G-APIM predictor variables (*x, x', i, and i'*) but the paths *a* and *b* as well as *c* and *d* are set to be equal but opposite to each other in effect direction, checking the assumption that loneliest are the victimized students in low victimization classrooms and who are discrepant from descriptive classroom norms while other students in the class are more homogenous. Table 3 shows the results. Time 1 discrepancy from classroom victimization norms and Time 1 classroom victimization homogeneity predicted Time 2 self-reported loneliness. The more dissimilar students were to their peers in initial peer-reported victimization, and the more homogenous a classroom (excluding the focal individual) was in initial victimization, the more individual student loneliness increased from Time 1 to Time 2.

This confirms the misfit hypothesis.

Self reported emotional symptoms. For peer-nominated relational victimization predicting self-reported emotional symptoms, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=4.994$, p=.416; *RMSEA*=.000[.000;.052]; *CFI*=1; SRMR=.011). This sub-model included only the autoregressive path (*k*) from Time 1 emotional symptoms to Time 2 emotional symptoms, but all the G-APIM variable paths were set to 0. These findings do not align with our hypothesis.

4.3.3. Self-reported physical victimization predicting self-reported conduct problems, delinquent behavior, loneliness, and emotional symptoms

Self-reported conduct problems. For self-reported physical victimization predicting self-reported conduct problems, the best-fitting sub-model was *the full contrast* sub-model ($\chi 2(3)=1.088$, p=.779; R*MSEA*=.000[.000;.042]; *CFI*=1; SRMR=.005). It involves the paths (*a, b, c, d)* from all 4 G-APIM predictor variables (*x, x', i, and i'*) but the paths *a* and *b*, as well as c and d, are set to be equal but opposite to each other. This checks the assumption that victimized students in low victimization classrooms and who are discrepant from descriptive classroom norms while other students in the class are more homogenous exhibit more conduct problems. Table 4 shows the results. Time 1 discrepancy from classroom victimization norms and Time 1 classroom victimization homogeneity predicted Time 2 self-reported conduct problems. The more dissimilar students were to their peers on initial self-reported relational victimization, and the more homogenous a classroom (excluding the focal individual) was in initial victimization, the more individual student conduct problems increased from Time 1 to Time 2. This confirms the misfit hypothesis.

Self-reported delinquent behavior. For self-reported physical victimization predicting self-reported delinquent behavior, the best-fitting sub-model was the *person-fit* sub-model ($\chi 2(2)=0.503$, p=.777; R*MSEA*=.000[.000;.049]; *CFI*=1; SRMR=.002). It involves the paths (*a, b, c*) from 3 G-APIM predictor variables (*x, x', i*). Table 4 shows the results. Time 1 discrepancy from classroom victimization norms approached significance (p=.051) predicting Time 2 self-reported delinquent behavior. Time 1 classroom descriptive victimization norms negatively predicted Time 2 self-reported delinquent behavior. The more dissimilar students were to their peers on initial self-reported relational victimization, and the lower the descriptive classroom norms of self-reported physical victimization (excluding the focal individual), the more individual delinquent behavior increased from Time 1 to Time 2. This confirms the misfit hypothesis.

Table 4. *G-APIM results from the best fitting sub-models: Self-reported physical victimization predicts self-reported: conduct problems, delinquent behavior, loneliness, and emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Conduct problems			
Full contrast sub-model			
Conduct problems (T1)	**.540**	**[.477; .604]**	**.000**
Individual Victimization (*x*)	-.027	[-.161; .107]	.690
Classroom Descriptive Victimization Norm (*x'*)	.009	[-.037; .056]	.690
Discrepancy from Classroom Victimization Norm (*i*)	**-.151**	**[-.286; -.016]**	**.028**
Classroom Victimization Homogeneity (*i'*)	**.082**	**[.009; .156]**	**.028**
Outcome: Time 2 Delinquent behavior			
Person fit sub-model			
Delinquent behavior (T1)	**.372**	**[.298; .446]**	**.000**
Individual Victimization (*x*)	-.001	[-.148; .146]	.988
Classroom Descriptive Victimization Norm (*x'*)	**-.116**	**[-.199; -.034]**	**.006**
Discrepancy from Classroom Victimization Norm (*i*)	**-.154**	**[-.309; -.001]**	**.051**
Outcome: Loneliness (Self-report)			
Contrast sub-model			
Loneliness (T1)	**.505**	**[.441; .569]**	**.000**
Individual Victimization (*x*)	**.095**	**[.022; .168]**	**.010**
Classroom Descriptive Victimization Norm (*x'*)	**-.033**	**[-.058; -.008]**	**.010**
Outcome: Emotional symptoms (self-report)			
Empty sub-model			
Emotional symptoms (T1)	**.654**	**[.610; .698]**	**.000**

Note. N=706. All models include an autoregressive path (T1 of the outcome) and location (country) as a covariate. In full contrast sub-model, paths a and b (from x and x') and c and d (from i and i') are set to be equal but opposite of each other. In contrast, sub-models, paths a and b (from x and x') are set to be equal but opposite of each other.

Results significant at p<.05 in bold.

Self reported loneliness. For self-reported physical victimization predicting self-reported loneliness, the best-fitting sub-model was the *contrast* sub-model ($\chi 2(4)=3.994$, p=.406; R*MSEA*=.000[.000;.057]; *CFI*=1; SRMR=.004). It involves paths (*a, b*) from 2 G-APIM predictor variables (*x* and *x'*). However, a and *b* are set to be equal but opposite of each other in effect direction, testing the assumption that victimization predicts loneliness relative to the descriptive classroom norms of victimization. Table 4 shows the results. Time 1 individual victimization positively and Time 1 classroom descriptive victimization norms negatively predicted Time 2 self-reported loneliness. Individual victimization of the students and classroom victimization norms oppositely (higher victimization and lower victimization norms) predicted increases in individual loneliness. This does not confirm the misfit hypothesis.

Self-reported emotional symptoms. For self-reported physical victimization predicting self-reported emotional symptoms, the best-fitting sub-model was *the empty* sub-model ($\chi 2(5)=6.012$, p=.305; *RMSEA*=.017[.000;.057]; *CFI*=.998; SRMR=.012). This sub-model included only the autoregressive path (*k*) from Time 1 emotional symptoms to Time 2 emotional symptoms, but all the G-APIM variable paths (*a, b, c, d*) were set to 0. These findings do not align with our misfit hypothesis.

4.3.4. Self-reported relational victimization predicting self-reported conduct problems, delinquent behavior, loneliness, and emotional symptoms.

Self-reported conduct problems. For self-reported relational victimization predicting self-reported conduct problems, the best-fitting sub-model was the *main effects* ($\chi 2(3)=1.265$, p=.737; R*MSEA*=.000[.000;.045]; *CFI*=1; SRMR=.004). It involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict conduct problems. Table 5 shows the results. Time 1 individual victimization predicted Time 2 self-reported conduct problems. The more victimized students were at Time 1 the more their conduct problems increased at Time 2. This does not confirm the misfit hypothesis.

Self-reported Delinquent behavior. For self-reported relational victimization predicting self-reported delinquent behavior, the best fitting sub-model was *similarity contrast* ($\chi 2(2)=0.021$, p=.942; *RMSEA*=.000[.000;.000]; *CFI*=1; SRMR=.001). It involves paths (*a, b, c, d*) from all 4 G-APIM predictor variables (*x, x', i,* and *i'*) but the paths *c* and *d* are set to be equal but opposite to each other, checking the assumption that disruptiveness is highest for students who are discrepant from descriptive classroom norms while other students in the class are more homogenous. Time 1 discrepancy from classroom victimization norms and Time 1 classroom victimization homogeneity oppositely predicted Time 2 delinquent behavior. The more dissimilar students were to their peers on initial peer-reported victimization, and the more homogenous a classroom (excluding the focal individual) was in initial victimization, the

more individual student delinquent behavior increased from Time 1 to Time 2. This confirms the misfit hypothesis.

Table 5. *G-APIM results from the best fitting sub-models: Self-reported relational victimization predicts self-reported: conduct problems, delinquent behavior, loneliness, and emotional symptoms.*

T1 Predictor	β	*95% CI*	*p*
Outcome: Time 2 Conduct problems			
Main effects model			
Conduct problems (T1)	**.513**	**[.448; .578]**	**.000**
Individual Victimization (*x*)	**.133**	**[.061; .205]**	**.000**
Classroom Descriptive Victimization Norm (*x'*)	.029	[-.033; .092]	.359
Outcome: Time 2 Delinquent behavior			
Similarity contrast			
Delinquent behavior (T1)	**.361**	**[.290; .431]**	**.000**
Individual Victimization (*x*)	.075	[-.035; .185]	.180
Classroom Descriptive Victimization Norm (*x'*)	-.008	[-.035; .071]	.847
Discrepancy from Classroom Victimization Norm (*i*)	**-.163**	**[-.276; -.051]**	**.005**
Classroom Victimization Homogeneity (*i'*)	**.092**	**[.029; .156]**	**.005**
Outcome: Loneliness (Self-report)			
Complete model			
Loneliness (T1)	**.450**	**[.373; .527]**	**.000**
Individual Victimization (*x*)	**.142**	**[.003; .253]**	**.013**
Classroom Descriptive Victimization Norm (*x'*)	**-.164**	**[-.285; -.044]**	**.007**
Discrepancy from Classroom Victimization Norm (*i*)	-.007	[-.116; .102]	.904
Classroom Victimization Homogeneity (*i'*)	**-.156**	**[-.279; -.032]**	**.014**
Outcome: Emotional symptoms (self-report)			
Main effects			
Emotional symptoms (T1)	**.615**	**[.562; .668]**	**.000**
Individual Victimization (*x*)	**.089**	**[.025; .153]**	**.007**
Classroom Descriptive Victimization Norm (*x'*)	.026	[-.033; .085]	.385

Note: N=706. All models include an autoregressive path (T1 of the outcome) and country as a covariate. In similarity contrast model i and i' paths are set to be equal but opposite of each other. Results significant at p<.05 in bold.

Self-reported loneliness. For self-reported relational victimization predicting self-reported loneliness, the best-fitting model was *complete* ($\chi 2(1)=0.065$, p=.799; R*MSEA*=.000[.000;.063]; *CFI*=1; SRMR=.008). It includes paths (*a, b, c, d)* from all 4 G-APIM predictor variables (*x, x', i, and i'*). Table 5 shows the results. Time 1 individual self-reported relational victimization positively, and Time 1 classroom descriptive victimization norms negatively predicted Time 2 self-reported loneliness. Time 1 classroom victimization homogeneity (how similar other students in the class were to each other) negatively predicted increases in loneliness. Victimized students in classrooms with lower classroom victimization norms (excluding focal individual) and higher dissimilarity among other classmates at Time 1 are more likely to experience increased loneliness at Time 2. This does not confirm the misfit hypothesis.

Self-reported emotional symptoms. For self-reported relational victimization predicting self-reported emotional symptoms, the best-fitting sub-model was the *main effects* ($\chi 2(3)=3.206$, p=.361; R*MSEA*=.001[.000;.065]; *CFI*=1; SRMR=.007). It involves only paths (*a, b*) from 2 G-APIM predictor variables *x* and *x'* and checks the assumption that individual victimization and classroom descriptive victimization norms predict emotional symptoms. Time 1 individual victimization predicted Time 2 self-reported emotional symptoms. The more victimized students were at Time 1, the more their emotional symptoms increased at Time 2. Classroom descriptive victimization norms did not significantly predict self-reported emotional symptoms. This does not confirm the misfit hypothesis.

4.4. Summary of the main findings

This summary of the main findings will only focus on the misfit hypothesis which suggests that higher discrepancy from classroom victimization norms predicts increases in adjustment problems over time.

Discrepancy from peer-reported physical victimization predicted increases in externalizing problems, namely disruptiveness and physical aggression. It did not predict internalizing symptoms. This confirms the misfit hypothesis regarding physical victimization for externalizing but not internalizing problems. Discrepancy from peer-reported relational victimization predicted only longitudinal changes in loneliness, suggesting that being more victimized than one's classmates increases loneliness over time. Discrepancy from peer-reported relational victimization did not predict externalizing problems or emotional symptoms.

Discrepancy from self-reported physical victimization predicted increases in externalizing problems, namely disruptiveness and physical aggression. It did not predict internalizing symptoms. This confirms the misfit hypothesis for externalizing but not internalizing problems. Discrepancy from self-reported relational victimization predicted increases in delinquent behavior longitudinally, partially confirming the misfit hypothesis.

4.5. Supplemental analysis

Finally, to check for potential differences in patterns of associations between boys and girls, primary school and secondary school students, and students from Lithuania and the USA, multiple group analysis was performed. We compared a fully constrained model (all regression paths set equal for both groups) with models where a single path is released. Since different models had different group comparisons, different Bonferroni corrections were applied accordingly based on the number of paths.

No significant gender differences were found after applying the Bonferroni correction. Additionally, for primary and secondary school students no differences were found as well.

Two differences emerged between Lithuanian and USA samples (samples only included primary school students from USA and Lithuania). The *person fit* sub-models for Peer-reported physical victimization predicting peer-reported physical aggression differed significantly ($\Delta\chi2$ (4) = 9.777; p = .044). Peer-reported individual physical victimization predicting peer-reported physical aggression differed for Lithuanian and USA school students ($\Delta\chi2$ (1) = 5.754; p = .016). Victimization significantly predicted changes in physical aggression for students from the USA (β=-.151; p=.041), but not for Lithuanian (β=.057; p=.431) school students. However, since this path was not significant in our main model, this difference only adds to the model but does not change the original findings. Additionally, there were significant differences for self-reported physical victimization predicting self-reported loneliness for Lithuanian and USA school students ($\Delta\chi2$ (1) = 6.494; p = .011). Victimization significantly predicted changes in loneliness for USA (β=.227; p=.000), but not for Lithuanian (β=-.047; p=.431) school students.

5. DISCUSSION

In this longitudinal study, we tracked a sample of 706 early adolescents spanning 39 classrooms from Lithuania and the United States across one academic year. We utilized both self-report and peer-report measures to evaluate physical and relational victimization, classroom victimization norms, and discrepancies from classroom victimization norms. Subsequently, we assessed the implications of these factors on several externalizing problems (peer-reported disruptiveness, physical aggression, self-reported conduct problems, and delinquent behavior) and internalizing outcomes (self-reported loneliness and emotional symptoms). The group-actor partner interdependence model (G-APIM) served as our framework, enabling the exploration of individual victimization (how victimized one is) in context with classroom victimization norms (average levels of victimization in one's classroom), pupils' deviations from these norms (how dissimilar one is to the average norms of victimization in the classroom), and classroom victimization homogeneity (how similar one's classmates are to each other in terms of being victimized).

This is the first longitudinal study to test the association between the discrepancy from classroom victimization norms (healthy context paradox) and externalizing symptoms in a classroom setting. The results partly aligned with our hypothesis: discrepancies from classroom victimization norms were found to be predictive of socioemotional challenges over time, even though not all hypotheses were confirmed. Drawing from the theories of person-group dissimilarity (Wright et al., 1984) and the concept of "social misfits", longitudinal findings of this study reveal that significant deviations from classroom victimization norms forecast an uptick in both externalizing (disruptiveness, physical aggression, conduct problems, delinquent behavior) and internalizing problems (loneliness, but not emotional symptoms). This suggests a potential sense of rejection, social strain, and blame externalization for students who experience victimization in settings where it is less common. Notably, different patterns of significant results emerged for physical and relational victimization and peer and self-reported data.

Discrepancy from physical victimization classroom norms

Longitudinally, both peer and self-reports of physical victimization discrepancies from classroom norms were linked to an increase in externalized problems. This was evident in peer-reported disruptiveness and physical aggression, as well as in self-reported delinquent behavior and conduct problems. This confirms a novel finding in the field of healthy context paradox, that discrepancy from physical classroom victimization norms is associated with externalizing problems. Notably, our findings did not reveal significant associations between deviations from physical victimization classroom norms and internalizing symptoms, hence it did not confirm previous findings that discrepancy from physical victimization is associated with internalizing problems.

Discrepancy from relational victimization classroom norms

The results regarding relational victimization presented fewer significant relationships. Longitudinal findings indicated that discrepancy from relational classroom victimization norms was associated with increased feelings of loneliness. Additionally, longitudinal findings showed that deviations from classroom norms for self-reported relational victimization were linked to an uptick in self-reported delinquent behavior. Further supplemental analyses unveiled a nuanced scenario. Findings show that relational victimization predicted increases in emotional symptoms and conduct problems solely in classrooms that exhibited low victimization norms, not high victimization norms.

Overview of the findings

Overall, the results of this study provide a partial confirmation of our initial hypotheses, aligning with findings from Casper & Card (2017) whose meta-analysis proposed that physical victimization predominantly correlates with externalizing symptoms, while relational victimization leans more towards internalizing symptoms, although with more limited support. Our findings showed that discrepancy from both self and peer-reported physical victimization norms is predictive of increases in externalizing problems over time. These findings are the novelty of this study. This implies that the form of victimization plays an intricate role and research should be more inclined to look at different victimization types and their outcomes separately.

The findings regarding the association between being a victimized social misfit and internalizing problems were less pronounced. Longitudinal findings showed only one association, between discrepancy from peer-reported relational victimization and increases in loneliness. The overarching impact of the COVID-19 epidemic might influence the less pronounced results concerning internalizing problems. A widespread surge in internalizing symptoms across the general population could be observed during this period (Bernasco et al., 2021; Hyland et al., 2021). Given this context, our reliance on self-reported metrics for internalizing symptoms could potentially mask the nuanced associations between victimization discrepancies and outcomes of interest. The pervasive effects of the pandemic might mean that an extensive proportion of respondents, not just those subjected to victimization, reported elevated levels of emotional symptoms and loneliness. This context is crucial when interpreting the depth and implications of our findings.

This study is not the first to express the notion of associations between victimization and socioemotional maladjustment (Olweus, 2013; Kim et al., 2006; Ostrov 2010). This is also not the first study to identify that lower descriptive classroom norms of victimization are associated with increased adjustment problems for remaining victimized students. The present study builds on a growing area of research focused on the "healthy context paradox" originating from person-group dissimilarity theory (Garandeau & Salmivalli, 2019; Sentse et al., 2007). This paradox highlights that anti-bullying efforts, while beneficial overall, may inadvertently disadvantage victims in contexts where bullying becomes atypical. These victimized "social misfits" face rejection and

increased maladjustment compared to victims in higher-bullying settings (Huitsing et al., 2019). While reviewed research was quite convincing for internalizing symptoms (Pan et al., 2021), even though it did not replicate fully in our findings, for externalizing problems the literature was much scarcer. Only one recent study from China was found to describe it in the classroom context. Their cross-sectional study explored the healthy context paradox and found that victimization predicts conduct problems more in classrooms with low victimization norms than in classrooms with high victimization norms (Liu et al., 2021). Nevertheless, Liu et al.'s (2021) cross-sectional approach does not validate the association of victimization with shifts in conduct problems over time. Another study by Zhao & Li (2022) employed student social cliques as the unit of analysis instead of classrooms, yielding significant longitudinal results for self-reported data but not for peer-reported data, thereby hinting at a potential shared reporter variance bias. This study is the first to look at longitudinal findings of healthy context paradox associations with externalizing symptoms in the context of the classroom.

Main findings in the realm of the healthy context paradox

In sum, our results bolster the framework of the 'healthy context paradox' (Garandeau & Salmivalli, 2019). While not every anticipated outcome materialized as significant, a pattern emerged. Novel in the literature concerning the healthy context paradox, we found its link to externalizing symptoms, we observed that greater discrepancies from classroom physical victimization norms are tied to an array of behavioral issues, ranging from disruptiveness to physical aggression. This held true for both self and peer-reported victimization, though not for relational victimization. The role of relational victimization discrepancies appeared less influential for both internal and external problems. Yet, additional analyses revealed that victimization holds more weight in predicting loneliness and emotional symptoms in classrooms with lower victimization norms than in their high victimization counterparts. This is the first longitudinal study that looked at the healthy context paradox in the classroom predicting externalizing problems, and the findings for discrepancy from physical victimization were replicated across self and peer-reported variables. Additionally, this is the first study that looked at both physical and relational victimization separately, and even though the findings were not consistent, this study paves the way for continued exploration of the intriguing 'healthy context paradox'.

Potential mechanisms explaining the observed associations

Firstly, from the vantage of an individual child who is victimized, the experience of being unduly targeted cultivates perceptions of unjust treatment. This, in turn, can foster feelings of anger and develop a hostile attribution bias—both of which have established ties to externalizing problems (Perren et al., 2013; Kaynak et al., 2015). In scenarios where pupils find themselves as isolated targets, or among a scant few subjected to negative peer treatment, the avenues for perspective are limited. Lacking a community of fellow victims to compare themselves with, these children inevitably engage in upward social comparison as posited by Festinger's theory (1954). In classes

where bullying norms are lower, victimized students are forced to make only upward social comparisons, perceiving their situation as particularly unfavorable because it sharply contrasts with the experiences of non-victimized classmates. This can cause feelings of inferiority, promote greater emotional symptoms, and strengthen the sense of social maladjustment (Pan et al., 2020).

Yet another lens through which to contemplate the association between discrepancy from victimization norms and externalizing and internalizing symptoms is the person-group dissimilarity model. This paradigm posits that individuals deviating markedly from the group norm—or social misfits—are less favored by their peers (Wright et al., 1984). Such social misalignment may render them less appealing as social associates, thus complicating their pursuit of durable friendships (Deptula & Cohen, 2004). Additionally, advocating for or allying with these 'misfits' might be perceived as jeopardizing one's own social standing, leading to further isolation (Laninga-Wijnen et al., 2021). Data indicates that students facing rejection are susceptible to heightened victimization stemming from their diminished social backing (Veenstra et al., 2013). In the absence of robust social ties, the acquisition of pivotal social skills, especially those essential for navigating the tumultuous terrains of victimhood strategically, becomes challenging. Resorting to aggression as a knee-jerk reaction can inadvertently fuel further bullying, thereby ensnaring the student in a vicious cycle (Reijntjes et al., 2011). Students who are socially marginalized face greater difficulties due to their behavioral problems (Sentse et al., 2007).

Potential explanations of why a victimized social misfit resorts to delinquent behavior lie in the general strain theory (Agnew, 2001). This theoretical perspective postulates that individuals resort to deviant or criminal behaviors as a reaction to the pressures or strains they encounter. In the context of victimized children, this strain emanates from the inequitable treatment meted out to them, culminating in feelings of frustration, anger, and despair. Being labeled as a social misfit in the school environment naturally estranges these children from affirmative peer relationships. The resultant emotional reaction often engenders a desire to circumvent the source of distress. In this instance, avoidance manifests as truancy, where children intentionally skip school to eschew the recurrent feelings of rejection and victimization. Baskerville (2021) posits that the classroom, perceived as a hostile environment by these children, becomes an entity they want to distance themselves from. However, evading school doesn't translate to evading the emotional fallout of their experiences. Without a specific target to vent their frustrations upon, these children might redirect their suppressed emotions toward illicit activities, which, while providing momentary relief, ensnare them in a cycle of negative behaviors and consequences (Yu & Chan 2019).

The Social Information Processing Model (Crick and Dodge, 1996) can provide a deeper understanding of the observed increased external difficulties among physically victimized students. Victims of victimization have often learned to notice threats, so they may misinterpret ambiguous social signals as hostile, which can trigger aggressive reactions from them. This hostile bias could explain why physically victimized students in classes with low victimization norms are more prone to inappropriate

behavior. The constant feeling of danger can promote defensive and aggressive reactions as a self-protection mechanism (van Reemst et al., 2016). Such aggressive behavior can further increase the gap from peers, thus maintaining the cycle of victimization and rejection.

Limitations and future directions

Our study is not without limitations. First, our sample involved students from 39 classrooms, which is an acceptable but small number for G-APIM analyses (Marsh et al., 2012). Shared reporter variance could potentially bias the self-report findings, but this concern is partly mitigated by the results from peer-reported data. Our analyses fail to account for interpersonal changes that occur across the course of a semester. Another limitation is that the study did not include peer or outside source (parents or teachers) reports of internalizing symptoms, as correlations between peer-reported measures and self-report measures are often different, and even parent-reported measures of internalizing symptoms show different trajectories than self-reported internalizing symptoms (Keiley et al., 2000). Friends can also moderate the effects of victimization on internalizing and externalizing problems; in this case, our study didn't check the potential moderating effects of friends (Yeung Thompson & Leadbeater, 2013). The association between discrepancy from classroom victimization norms and internalizing and externalizing problems may not be direct, but rather mediated through emotional regulation or hostile attribution (Liu et al., 2021), this study did not account for these potential mediators. Finally, our sample was collected during the academic year of 2021-2022, directly after the global plight of COVID-19. Considering the detrimental effects of the pandemic on youth some effects in our study may not be captured as they were masked by the internalizing symptoms increased due to the global circumstance.

Future studies could use popularity norms and descriptive norms in the model of GAPIM to measure for the healthy context paradox. Additionally, future research could look at the sense of helplessness among children who are not victimized in classrooms with low victimization norms (especially popularity norms). Thirdly, what individual traits may determine what causes children to react passively or aggressively to discrepancies in victimization remains unanswered. Finally, future studies could include personal resilience as a potential factor contributing to the association between victimization and maladjustment.

Recommendations for practitioners and policymakers.

It's pivotal to understand that a student's disruptiveness and misbehavior might be manifestations of underlying victimization. The onus is on educators to delve deeper rather than drawing superficial conclusions. The perceptions held by teachers regarding disruptive and misbehaving students play a pivotal role in shaping the students' experiences and outcomes. It's paramount that educators not only recognize disruptive behaviors but also seek to understand the underlying causes behind them. Furthermore, it's crucial to remember that not all students benefit equally from interventions.

The emergence of the healthy context paradox highlights the inadvertent negative outcome of some interventions: while creating a healthier environment for the majority, they may inadvertently exacerbate the victimization of a few. For policymakers charting the course of intervention strategies against bullying, it is imperative to ensure that the overarching goal isn't just to elevate the overall classroom environment but to ensure the well-being of each individual student. Thus, any intervention aimed at bullying prevention should be complemented with regular follow-up sessions. Furthermore, in recognizing the healthy context paradox, interventions should be designed with a dual focus: one that enhances the overall classroom climate and another that provides targeted support to students struggling to break free from the cycle of victimization

5.1. Conclusions

This study delved into the intricate longitudinal relationship between physical and relational victimization, classroom victimization norms, and internalizing and externalizing student outcomes. Most clearly, the study reveals the longitudinal association between discrepancy from physical victimization classroom norms and increases in externalizing symptoms, whereas the association between discrepancy from victimization classroom norms and internalizing symptoms showed mixed results. In more detail, the findings from this study indicate that:

- Higher discrepancy from peer-reported physical victimization classroom norms was associated with increases in externalizing symptoms (disruptiveness and physical aggression) later in the year.
- Higher discrepancy from peer-reported physical victimization classroom norms was not associated with increases in internalizing symptoms (emotional problems and loneliness) later in the year.
- Higher discrepancy from peer-reported relational victimization classroom norms was not associated with increases in externalizing symptoms (disruptiveness and physical aggression) later in the year.
- Higher discrepancy from peer-reported relational victimization classroom norms was associated with increases in loneliness later in the year, but was not associated with increases in emotional symptoms.
- Higher discrepancy from self-reported physical victimization classroom norms was associated with increases in externalizing symptoms (conduct problems and delinquent behavior) later in the year.
- Higher discrepancy from self-reported physical victimization classroom norms was not associated with increases in internalizing symptoms (emotional problems and loneliness) later in the year.
- Higher discrepancy from self-reported relational victimization classroom norms was associated with increases in delinquent behavior later in the year but was not associated with increases in conduct problems.

- Higher discrepancy from self-reported relational victimization classroom norms was not associated with increases in internalizing symptoms (loneliness and emotional symptoms) later in the year.

The findings add to a growing body of evidence indicating that being a social misfit poses a risk for maladjustment, particularly when one is an outlier in terms of being victimized. Healthy classrooms may not be healthy for everyone. Children who remain victimized in a classroom that has lower victimization norms are worse off than those in classrooms with higher victimization norms. Indeed, groups thrive when they coalesce around a common antagonist. The findings are an important reminder about the dangers of blaming the victim. Students who act out may be doing so because they are the victims of maltreatment, not because they are inclined to misbehave or cannot control themselves.

LIST OF SCIENFITIC PUBLICATIONS RELATED TO DISSERTATION

1. Katulis, G., & Pilkauskaitė Valickienė, R. (2022). A systematic review of outdoor adventure education programs in schools. Social inquiry into well being, 20(2) https://cris.mruni.eu/cris/handle/007/18745
2. Katulis, G., Kaniušonytė, G., & Laursen, B. (2023). Positive classroom climate buffers against increases in loneliness arising from shyness, rejection sensitivity and emotional reactivity. Frontiers in Psychiatry, 14. https://cris.mruni.eu/cris/handle/007/24052
3. Katulis, G., Kaniušonytė, G., & Laursen, B. (2024). Extending the healthy context paradox to nonintervention settings: Escalating problem behaviors among victimized social outliers. *School Psychology*. https://cris.mruni.eu/cris/handle/007/48364

PRESENTATIONS AT CONFERENCES ON THE DISSERTATION TOPIC

1. G. Katulis. Patirtiniu ugdymu paremtų intervencijų efektyvumas mokyklose. Jaunųjų mokslininkų psichologų konferencija (JMPK). 2019, Vilnius, Lithuania.
2. G. Katulis. Nuotykinėmis išvykomis paremtų intervencijų su mokiniais sisteminė analizė. Lietuvos psichologų kongresas (LPK). 2019, Vilnius, Lietuva.
3. G. Katulis. The Unadventurous Life of a "Normal" Classroom. International camp-conference "Smithy of ideas" 2019, Kelmė, Lithuania
4. G. Katulis. Outdoor adventures for a classroom. What? How? and Why? Social Innovation: Inclusiveness and Civic Mindedness (SOCIN). 2019, Vilnius, Lithuania
5. G. Katulis, D. Šakinytė. The effect of perceived classroom peer context and victimization on internalized and externalized problems. International Society for the Study of Behavioural Development (ISSBD). 2022, Rhodes, Greece.
6. G. Katulis, G. Kaniušonytė. Moderating effects of perceived classroom peer context on the relationship between shyness, victimization, and internalizing problems. European associaction for research on adolescence conference (EARA). 2022, Dublin, Ireland
7. G. Katulis, G. Kaniušonytė, B. Laursen. Perceived positive classroom climate buffers against loneliness linked to shyness, rejection sensitivity and emotional reactivity. Society for research on adolescence annual meeting (SRA). 2023, San Diego, USA.
8. G. Katulis. Skrolink kaip visi! Nukrypimas nuo deskriptyvių klasės socialinių tinklų vartojimo normų prognozuoja didesnę viktimizaciją. Jaunųjų mokslininkų psichologų konferencija (JMPK). 2023, Vilnius, Lithuania.
9. G. Katulis. Victims Out of Sync: How Disparities in Victimization Impact

Aggressive behavior Amongst Adolescents. European Conference of Developmental Psychology (ECDP). 2023, Turku, Finland.
10. G. Katulis, G. Kaniušonytė, B. Laursen. Sveiko konteksto paradoksas – Kaip mažesnės klasės patyčių normos gali pabloginti situaciją likusioms aukoms. Lietuvos psichologų kongresas (LPK). 2024, Klaipėda, Lithuania.
11. G. Katulis, G. Kaniušonytė. Healthy context paradox: How emotion suppression shapes victim responses to being social misfits. International Society for the Study of Behavioural Development (ISSBD). 2024, Lisboa, Portugal.

CURRICULUM VITAE

Personal data

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Education

2018–2024	Doctoral studies of Psychology (Mykolas Romeris University)
2014–2017	Master's degree in Business Psychology (Mykolas Romeris University)
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Work experience

From 2014	CEO of Katulis ir KO
From 2017	Psychologist at Sacred Matulaitis Social center.
From 2018	Freelance experiential education trainer
2019-2023	Junior researcher at Mykolas Romeris University
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MYKOLO ROMERIO UNIVERSITETAS

Gintautas Katulis

VIKTIMIZUOJAMI SOCIALIAI NEPRITAPĘ: KAIP METŲ EIGOJE KLASĖS VIKTIMIZACIJOS NORMŲ NEATITIKIMAS YRA SUSIJĘS SU EMOCINĖMIS IR ELGESIO PROBLEMOMIS JAUNESNIŲ PAAUGLIŲ IMTYJE

Mokslo daktaro disertacijos santrauka
Socialiniai mokslai, psichologija (S 006)

Vilnius, 2025

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Daktaro disertacija ginama eksternu.

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Mokslo daktaro disertacija bus ginama viešame Psichologijos mokslo krypties tarybos posėdyje 2025 m. gegužės 9 d. 14.30 val. Mykolo Romerio universitete, L-102 auditorijoje.

Adresas: Didlaukio g. 55, Vilnius.

TURINYS

1. ĮVADAS

1.1. Tyrimo aktualumas

Išsiskirti yra rizikinga (Wright ir kt., 1986). Visoms gyvūnų rūšims, įskaitant žmones, būdingas giliai įsišaknijęs konkurencinis impulsas, kuris dažniausiai nukreipiamas prieš tuos, kurie išsiskiria iš daugumos (Donegan, 2012). Mokyklos aplinka dažnai tampa erdve, kurioje ši konkurencija pasireiškia per aukos ir agresoriaus vaidmenis, kurie atsiskleidžia patyčių forma (Allanson ir kt., 2015). Nepaisant ryžtingų pastangų ir iš dalies sėkmingų intervencijų, skirtų mažinti patyčių aukų skaičių mokyklose, šis reiškinys išlieka plačiai paplitęs. Prie išlikusio paplitimo iš dalies prisideda ir tai, jog patyčių ir viktimizacijos reiškinys yra kompleksiškas, todėl yra sudėtinga atpažinti priežastinius veiksnius ir pagrindines rizikas, susijusias su šiuo procesu (Sullivan ir kt., 2003). Atsižvelgiant į tai, būtini tolesni viktimizacijos, patiriamos iš bendraamžių, moksliniai tyrimai (Smith, 2016).

Pasauliniai duomenys atskleidžia nerimą keliančią situaciją: 15–16 metų amžiaus grupėje daugiau nei 15 % mokinių patiria fizinę viktimizaciją iš bendraamžių, o daugiau nei 21% susiduria su į santykius orientuota viktimizacija (Hosozawa ir kt., 2021, OECD, 2019). Jaunesnių, 12–15 metų amžiaus, paauglių grupėje viktimizacijos rodikliai visame pasaulyje yra dar aukštesni (Biswas ir kt., 2020). Analogiškos tendencijos atsiskleidžia Rytų Europoje ir Jungtinėse Amerikos Valstijose (Hosozawa ir kt., 2021, OECD, 2019). Santykinai mažesnis viktimizacijos atvejų skaičius yra pastebimas Vakarų Europoje. Vidutiniškai apie 10 % ankstyvųjų paauglių susiduria su viktimizacija nuo bendraamžių, visgi šio reiškinio paplitimas nėra išnykęs (Biswas ir kt., 2020).

Viktimizacijos pasekmės pasireiškia ne vien emociniu lygmeniu – jos apima sumažėjusią savivertę (Tsaousis, 2016), sustiprėjusius depresijos simptomus (Desjardins & Leadbeater, 2011), vienišumo jausmą (Giletta et al., 2018) bei atsirandančias mintis apie savižudybę (Turner ir kt., 2013). Ilgalaikės psichologinės patyčių pasekmės dažnai siejamos su nuolatiniais socialiniais sunkumais, kurie gali pakenkti akademiniams pasiekimams, profesiniam produktyvumui ir bendrai psichologinei gerovei (Stapinski ir kt., 2014). Viktimizacijos padariniai neapsiriboja momentiniu aukos gerovės sutrikdymu. Viktimizacijos pasekmės išlieka ir pasikeitus mokymosi aplinkai ar perėjus į suaugystę - tyrimai atskleidžia, kad patyčias patyrę asmenys vėlesniais savo gyvenimo etapais pasižymi padidėjusiu nerimu, internaliais sunkumais, jiems nustatomos įvairios klinikinės diagnozės (Stapinski ir kt., 2014). Pasekmes patyčių auka gali jausti visą gyvenimą, kas sukelia ir ilgalaikę ekonominę naštą visuomenei: suaugę asmenys, patyrę patyčias paauglystėje, pasižymi žemesniu įsidarbinimo lygiu, mažesniu sukauptu turtu bei dažnesniu sveikatos priežiūros paslaugų poreikiu (Brimblecombe et al., 2018). Viktimizacija dažnai sukuria uždarą ciklą: bendraamžių patyčių aukos patiria daugiau internalių sunkumų, o tai paradoksaliai padidina jų tikimybę toliau patirti viktimizaciją. Kitaip tariant, dėl padidėjusių internalių sunkumų šie asmenys tampa dar patrauklesnėmis patyčių aukomis (Reijntjes ir kt., 2010; Murray-Close ir kt., 2007). Viktimizacijos iš bendraamžių patyrimas yra susijęs ir su elgesio problemomis

(Reijntjes ir kt., 2011) bei su prastesniais akademiniais rezultatais (Espelage ir kt., 2013). Iš dalies tai gali būti susiję su blogėjančiu mokyklos lankymu (Juvonen ir Graham, 2014). Viktimizaciją patiriantys mokiniai yra labiau linkę praleisti pamokas, o tai gali paskatinti neigiamą pedagogų požiūrį. Susidūrę su mokytojų nepasitenkinimu ir kritika, mokiniai gali reaguoti agresyviai, demonstruodami destruktyvų elgesį klasėje (Juvonen ir Graham, 2014; Juvonen ir kt., 2000). Vengiantys lankyti pamokas mokiniai dažnai leidžia laiką už mokyklos ribų arba su kitais mokyklos nelankančiais bendraamžiais, kas didina delinkventinio elgesio (Rocque ir kt., 2017; Hanish ir Guerra, 2002), kuris pasireiškia pamokų praleidinėjimu, vagystėmis ir turto niokojimu, tikimybę (Bendixed ir Olweus, 1999).

Intervencijos, kai siekiama sumažinti viktimizaciją, patiriamą iš bendraamžių, mokyklose yra perspektyvios ir rezultatai atrodo daug žadantys: mažėja patyčių atvejų ir kuriama saugesnė aplinka jaunimo raidai (Evans ir kt., 2014). Vakarų šalys, įdiegusios prevencines programas, pasižymi žemesniais viktimizacijos rodikliais, palyginus su kitais regionais (Ng ir kt., 2022), tačiau vis augantis ir sėkmingas intervencijų taikymas yra pastebimas visame pasaulyje (Fraguas ir kt., 2021), įskaitant Lietuvą (Zuzevičiūte, 2023) ir Jungtines Amerikos Valstijas (Gaffney ir kt., 2019). Vis dėlto intervencijų sėkmė kartais sukelia nenumatytų padarinių. Nors dauguma intervencijų sėkmingai mažina patyčių skaičių mokyklose, išryškėja netikėtas fenomenas: tie mokiniai, kurie, nepaisant intervencijos, toliau susiduria su patyčiomis, patiria dar didesnį izoliacijos jausmą, vienišumą, atsiranda depresijos simptomų (Garandeau ir Salmivalli, 2019) bei elgesio problemų (Liu ir kt., 2021). Naujausi tyrimai rodo, kad šis efektas gali peržengti klasės ribas ir veikti nacionaliniu mastu: aukų psichologinė gerovė tampa žemesnė tose šalyse, kuriose vyrauja žemesnės viktimizacijos, patiriamos iš bendraamžių, normos. (Agyekum-Hene et al., 2024).

Klasėse, kuriose vyrauja žemesnės viktimizacijos normos, patyčių aukos ne tik patiria tiesioginę viktimizaciją, bet ir įgyja „socialiai nepritampančiųjų" (angl. „Social misfit") statusą, tai dar labiau apsunkina jų situaciją (Garandeau ir Salmivalli, 2019). Šiame kontekste išryškėja dvi esminės problemos. Pirma, dėl intervencijų, kuriomis siekiama sumažinti viktimizaciją klasėje, gali pablogėti likusių aukų situacija. Antra, mokyklos ir klasės, pasižyminčios žemomis viktimizacijos normomis, potencialiai formuoja nepalankią socialinę terpę izoliuotoms aukoms. Išsamesnis šio fenomeno supratimas galėtų suteikti pedagogams ir švietimo politikos formuotojams vertingų įžvalgų apie specifinius sunkumus, su kuriais susiduria moksleiviai, dėl izoliuotos viktimizacijos pasižymintys padidėjusiu vienišumu ar didesne agresija (Huitsing ir kt., 2019; Liu ir kt., 2021).

1.2. Tyrimo problema ir naujumas

Sąsajos tarp socialinio nepritapimo paauglystėje ir sumažėjusio bendraamžių priėmimo yra empiriškai patvirtintos (Wright ir kt., 1986). Didėjant į patyčias orientuotų intervencijų efektyvumui, išryškėja būtinybė giliau analizuoti šią dinamiką, ypatingą dėmesį skiriant vadinamajam sveiko konteksto paradoksui (Garandeau ir Salmivalli,

2019). Šis paradoksas atskleidžia, kad sumažėjus bendroms viktimizacijos normoms klasėje, besitęsiančią viktimizaciją patiriantys moksleiviai patiria dar stipresnę socialinę izoliaciją ir padidėjusius internalius sunkumus (Laninga-Wijnen ir kt., 2023).

Nors tyrimų, kaip klasės viktimizacijos normų neatitikimas lemia ankstyvųjų paauglių elgesio ir emocines problemas, vis dar trūksta, yra pastebėta, kad viktimizacijos ir depresijos bei internalių sunkumų sąsajos yra ryškesnės klasėse su žemesniais patyčių rodikliais (Yun ir Juvonen, 2020). Tačiau išlieka ribotas supratimas apie tai, kaip klasės viktimizacijos normų neatitikimas yra susijęs su eksternaliais sunkumais, tokiais kaip elgesio problemos ar delinkventinis elgesys.

Vienintelis ankstesnis tyrimas, atliktas Kinijos kultūriniame kontekste, analizavo aukų išorinių elgesio problemų raišką skirtingose klasėse: vienose viktimizacijos normos buvo žemesnės, o kitose aukštesnės. Autoriai nustatė, kad ryšys tarp patiriamos viktimizacijos ir elgesio problemų yra ryškesnis klasėse, kuriose viktimizacijos normos buvo žemesnės (Liu ir kt., 2021). Svarbu atsižvelgti į tai, kad tyrimo autoriai neatskyrė santykių ir fizinės viktimizacijos tipų bei naudojo skerspjūvio tipo duomenų. Longitudinio ryšio tarp klasės viktimizacijos normų neatitikimo ir elgesio problemų analizė Vakarų kultūros kontekste yra vienas iš šio tyrimo naujumų.

Vienas iš neišspręstų klausimų, susijusių su sveikos aplinkos paradoksu, yra klasės homogeniškumo sąsajos su bendraamžių viktimizacijos pasekmėmis (Laninga-Wijnen et al., 2023). Ankstesni tyrimai operacionalizavo klasės viktimizacijos normas kaip vidutinį viktimizacijos, patiriamos iš bendraamžių, pasireiškimo lygį klasėje (Gini et al., 2020), tačiau toks būdu neatsižvelgiama į bendraklasių panašumo kompleksiškumą. Pavyzdžiui, dvi klasės gali turėti identiškus vidutinius viktimizacijos lygius, tačiau reikšmingai skirtis variacijos aspektu: vienoje klasėje visi moksleiviai gali suvokti viktimizaciją kaip vidutinę, kitoje – pusė moksleivių gali patirti intensyvią viktimizaciją, o kita pusė – minimalią. Tokie grupės homogeniškumo skirtumai šiame tyrime analizuojami taikant Grupės Aktoriaus Partnerio Abipusės Priklausomybės Modelį (G-APIM) (Kenny ir kt., 2012). Taip pat lieka neaišku, ar atliekant ankstesnius tyrimus buvo atsižvelgiama į konkretaus mokinio įtaką grupės vidurkiui skaičiuojant vidutinį klasės viktimizacijos lygį (Garandeau ir Salmivalli, 2019; Liu ir kt., 2021). Pavienio mokinio patirtis gali reikšmingai pakeisti klasės viktimizacijos vidurkį. Šiame tyrime ši metodologinė problema sprendžiama apskaičiuojant klasės konteksto kintamąjį (aprašomąsias klasės viktimizacijos normas) individualiai kiekvienam klasės moksleiviui.

Sveiko konteksto paradokso tyrimų srityje galima atpažinti dar vieną spragą – atlikta nepakankamai tyrimų, kai vienu metu nagrinėjamas tiek bendraamžių nominacijomis, tiek pačių aukų vertinimu matuotas viktimizacijos, patiriamos iš bendraamžių, pasireiškimas bei jos pasekmės. Tik du ankstesni tyrimai, atlikti Kinijoje, naudojo tiek savistabos klausimynais, tiek bendraamžių nominacijomis matuotą viktimizacijos vertinimą. Iš šių tyrimų paaiškėjo reikšmingi rezultatai, patvirtinantys sveiko konteksto paradoksą bei jo sąsajas su internaliais sunkumais (Xiong ir kt., 2023) ir elgesio problemomis (Zhao ir Li, 2022). Visgi reikšmingi abiejų tyrimų rezultatai atsiskleidė tik remiantis mokinių savęs vertinimo duomenimis, bet ne bendraamžių nominacijomis. Šie rezultatai indikuoja potencialią viktimizacijos vertinimo tipo įtaką tyrimo

išvadoms. Svarbu pažymėti, kad bendraamžių nominacijomis ir savistabos klausimynais vertinama viktimizacija dažnai silpnai koreliuoja tarpusavyje (Oldenburg ir kt., 2015) bei pasižymi sąsajomis su skirtingomis pasekmėmis (Košir ir kt., 2020). Todėl šio tyrimo mokslinis naujumas atsiskleidžia per sąsajų tarp klasės viktimizacijos normų neatitikimo ir tiek internalių sunkumų, tiek elgesio problemų analizę, integruojant duomenis iš abiejų informacijos šaltinių – tiek savęs, tiek bendraamžių vertinimo.

Ankstesniuose sveiko konteksto paradokso tyrimuose nebuvo analizuojami atskiri fizinės ir santykių viktimizacijos tipai bei jų sąsajos su internaliais eksternaliais sunkumais, ypač kaip aprašomųjų klasės viktimizacijos normų neatitikimo pasekmė. Skirtingai nei daugelyje ankstesnių tyrimų, kuriuose fizinės ir santykių viktimizacijos tipai buvo sujungiami (Liu et al., 2021; Pan et al., 2021; Huitsing et al., 2019; Laninga-Wijnen et al., 2023), šiame tyrime jie nagrinėjami atskirai. Konceptualiai šis metodologinis sprendimas yra pasirinktas dėl to, kad skirtingi viktimizacijos tipai asocijuojasi su skirtingais rezultatais: fizinė viktimizacija stipriau koreliuoja su elgesio problemomis, o santykių viktimizacija – su internaliais sunkumais (Sullivan et al., 2006). Tai suteikia galimybę pastebėti panašias tendencijas ir sveiko konteksto paradokso tyrimų srityje. Be to, šis tyrimas gali atskleisti lyčių skirtumus, nes paprastai berniukai labiau linkę patirti fizinę viktimizaciją, o mergaitės – santykių viktimizaciją (Herge et al., 2016).

Dar vienas šio tyrimo išskirtinumas – jo tarpkultūriškumas, apimantis tiek Lietuvos, tiek JAV mokinių populiacijas. Tai suteikia galimybę suformuoti kompleksiškesnį fenomeno supratimą ir patvirtinti rezultatus skirtinguose kultūriniuose kontekstuose. Psichologijos moksle dažnai susiduriama su generalizavimo ir pakartojamumo problemomis pateikiant tyrimo rezultatus (Anvari & Lakens, 2018). Šiame tyrime naudojama sujungta imtis leidžia iš karto replikuoti tyrimo rezultatus, taip parodant, kad jie gali būti efektyviau generalizuojami įvairioms populiacijoms.

Šią disertaciją taip pat sustiprina jos longitudinis dizainas, leidžiantis tirti klasės viktimizacijos normų neatitikimo sąsajas su internalių ir eksternalių sunkumų pokyčiu per metus. Dominuojanti tyrimų praktika šioje srityje remiasi skerspjūvio duomenimis, analizuojančiais vienalaikius ryšius (Yun & Juvonen, 2020; Liu et al., 2021; Huang et al., 2023; Xiong et al., 2023). Nors kai kurie tyrimai atskleidė longitudinius ryšius, patvirtinančius prielaidą, kad paaugliai, patiriantys viktimizaciją klasėse, kuriose vyrauja žemesnės viktimizacijomis normos, susiduria su internalių sunkumų padidėjimu (Laninga-Wijnen et al., 2023; Pan et al., 2021), bet iki šiol nebuvo atlikta tyrimų, patvirtinančių sąsajas su eksternaliais sunkumais.

1.3. Tyrimo tikslas, tyrimo klausimai ir ginamieji teiginiai.

1.3.1. Tyrimo tikslas

Pagrindinis šios disertacijos tikslas yra ištirti, ar klasės aprašomųjų fizinės ir santykių viktimizacijos normų neatitikimas yra susijęs su internalių (vienišumo ir emocinių simptomų) ir eksternalių (trikdančio elgesio, fizinės agresijos, delinkventinio elgesio ir elgesio problemų) sunkumų padidėjimu per metus jungtinėje Lietuvos ir JAV ankstyvųjų paauglių imtyje.

1.3.2. Tyrimo klausimas

Koks yra ilgalaikis ryšys tarp patiriamos fizinės ir santykių viktimizacijos, klasės aprašomųjų viktimizacijos normų, klasės aprašomųjų viktimizacijos normų neatitikimo ir klasės viktimizacijos homogeniškumo su internaliais ir eksternaliais sunkumais?

1.3.3. Ginamieji teiginiai

Aprašomųjų klasės viktimizacijos normų neatitikimas yra susijęs su padidėjusiais internalių ir eksternalių sunkumų lygiais per metus.

Socialiai nepritampantys paaugliai, kurie patiria daugiau fizinės viktimizacijos iš bendraamžių nei būdinga jų klasėje, susiduria su daugiau eksternalių sunkumų per metus.

Socialiai nepritampantys paaugliai, kurie patiria daugiau santykių viktimizacijos iš bendraamžių nei būdinga jų klasėje, susiduria su daugiau internalių sunkumų per metus.

1.4. Terminų apibrėžimai

- Delinkventinis elgesys (Delinquent Behavior): Įvairūs teisės ir socialines normas pažeidžiantys veiksmai, apimantys mokyklos nelankymą, smulkias vagystes, tyčinį turto žalojimą ir kitus antisocialius poelgius (Bendixed ir Olweus, 1999).
- Aprašomosios klasės normos (Descriptive Classroom Norms): Konkretaus elgesio paplitimo ir intensyvumo lygis klasėje. Šios normos nustatomos matuojant vidutinį tam tikro elgesio išreikštumą tarp mokinių konkrečioje klasėje (Shin, 2017).
- Elgesio problemos (Conduct Problems): Įvairialypiai agresyvaus elgesio pasireiškimai, įskaitant fizinį smurtą (muštynes), melavimą, apgaulę ir priešiškumą kitų atžvilgiu (Olweus, 2013; Kim ir kt., 2006).
- Emociniai simptomai (Emotional symptoms): Psichologinių simptomų visuma, kurią apibrėžia Goodman'o „Emocinių simptomų skalė". Šie simptomai apima pasikartojančius fizinius negalavimus be aiškios medicininės priežasties (galvos, pilvo skausmai), nuolatinį nerimo jausmą, polinkį į prislėgtą nuotaiką, perdėtą nerimastingumą naujose situacijose bei nepagrįstų baimių atsiradimą (Goodman, 1997).
- Fizinė agresija (Physical aggression): Tiesioginio agresyvaus elgesio forma, pasireiškianti tyčiniais fiziniais veiksmais, tokiais kaip mušimasis, stumdymasis, daiktų laužymas ar kiti veiksmai, kuriais siekiama padaryti fizinę žalą (Craig, 1998).
- Fizinė viktimizacija (Physical victimization): Tiesioginis fizinės žalos ir grasinimų fiziškai pakenkti patyrimas, kuris apima įvairius fizinio smurto veiksmus:

mušimą, smūgiavimą, pliaukštelėjimą, spardymą ar kitokį fizinį kontaktą, kuriuo siekiama pakenkti asmeniui (Kennedy, 2020).

- Grupės-Aktoriaus Partnerio Abipusės Priklausomybės Modelis (Group-Actor Partner Interdependence Model, G-APIM): Metodologinė priemonė, leidžianti vienu metu modeliuoti ir analizuoti ryšius tarp individualių ir grupinių savybių (Garcia ir kt., 2015; Kenny ir Garcia, 2012; Gommans ir kt., 2017).
- Grupės-Asmens Nepanašumo Modelis (Group-Person Dissimilarity Model): Teorinis modelis, aiškinantis, kaip asmens ir grupės charakteristikų skirtumai yra susiję su asmens pozicija grupėje. Modelis teigia, kad ryšys tarp specifinių asmens savybių ar elgesio bei jų pasekmių grupėje (pavyzdžiui, socialinis statusas) priklauso nuo to, kiek asmuo skiriasi nuo grupės normos (Wright, 1986).
- Aprašomųjų klasės normų neatitikimas (Discrepancy from Descriptive Classroom Norms): Kiekybiškai išmatuojamas asmens elgesio ar patirties nesutapimas su aprašomosiomis klasės normomis. Šis rodiklis atspindi, kiek konkretaus mokinio patirtis ar elgesys skiriasi nuo klasės vidurkio (Kaufman ir kt., 2022).
- Patyčios (Bullying): Tyčinis, pasikartojantis neigiamas elgesys, kurį vykdo vienas ar keli asmenys, nukreiptas prieš silpnesnę poziciją užimantį asmenį, negalintį efektyviai apsiginti dėl galios disbalanso (Olweus ir Limber, 2010).
- Santykių viktimizacija (Relational victimization): Taip pat žinoma kaip socialinė ar santykių agresija. Tai yra netiesioginės agresijos forma, apimanti veiksmų, kurie kenkia asmens socialiniams santykiams ar statusui grupėje patyrimą. Tai pasireiškia tuomet, kai skleidžiami gandai, apkalbos, patiriama socialinė izoliacija ar manipuliuojama draugystės ryšiais (Kennedy, 2020).
- Sveiko konteksto paradoksas (Healthy context paradox): Reiškinys, kai mokiniai, patiriantys patyčias aplinkoje, kuriai būdingas žemas patyčių lygis, išgyvena didesnius emocinius sunkumus nei tie, kurie patiria patyčias kontekstuose, kur patyčių lygis yra aukštesnis (Garandeau ir Salmivalli, 2019).
- Trikdantis elgesys (Disruptiveness): Kompleksinis elgesio modelis, pasireiškiantis agresyvumu, priešgyniavumu ir hiperaktyvumu klasės aplinkoje (Stormshak ir kt., 2000).
- Vienišumas (Loneliness): Subjektyviai išgyvenama emocinė būsena, kuriai būdingas gilus ir nepageidaujamas socialinės izoliacijos jausmas. Šis jausmas dažniausiai kyla dėl suvokiamo prasmingų socialinių ryšių trūkumo ar jų kokybės neatitikimo asmens poreikiams (Perlman ir Peplau, 1981).
- Viktimizacija (Victimization) : Sąvoka dažnai siejama su patyčių patyrimu. Nors patyčios pabrėžia agresoriaus veiksmus, viktimizacija koncentruojasi į aukos patirtį ir jos pasekmes. Ši sąvoka apima platų spektrą patyrimų: nuo fizinių ir žodinių išpuolių iki santykių ar socialinės atskirties (Geel ir kt., 2016).

2. LITERATŪROS APŽVALGA

Ankstyvoji paauglystė – reikšmingų pokyčių laikotarpis. Šiuo laikotarpiu vyksta svarbūs pokyčiai: iš aplinkos, kurioje pagrindiniai gyvenimo kelrodžiai yra suaugusieji, pereinama į pasaulį, kai asmuo tampa vis savarankiškesnis ir linkęs bendrauti su bendraamžiais. Paaugliai tampa vis labiau atsakingi už savo sprendimus ir jaučia stiprėjančią bendraamžių įtaką, o draugystės tampa vis reikšmingesnės (Laursen ir Hartl, 2013). Šiuo raidos etapu keičiasi paauglių elgesio pobūdis: impulsyvius, fizinius veiksmus keičia labiau organizuotas, santykiais grįstas elgesys. Šie raidos pokyčiai taip pat atsispindi viktimizacijos pobūdyje. Fizinė viktimizacija paauglystėje mažėja, o santykių viktimizacija tampa vis dažnesnė (Underwood ir kt., 2009). Nors paaugliai intensyviai siekia priklausyti socialinėms grupėms, ne visiems pavyksta sėkmingai integruotis. Mokiniai, kurių elgesys ar patirtys neatitinka vyraujančių grupės ar klasės normų, dažnai tampa socialiai atskirti, o tai gali lemti jų marginalizaciją (Wright ir kt., 1986). Svarbu pabrėžti, kad nėra universalių savybių, užtikrinančių priėmimą į grupę – kiekvienos grupės dinamika formuoja savitus pageidaujamų savybių kriterijus. Dėl šios priežasties paauglystė tampa itin sudėtingu raidos etapu, reikalaujančiu plataus spektro socialinių prisitaikymo gebėjimų (Rubin ir kt., 2008). Išsiskyrimas iš grupės dažnai sukelia ne tik bendraamžių atstūmimą, bet ir virsta neigiamomis patirtimis, tarp kurių – bendraamžių viktimizacija.

Bendraamžių viktimizacija daro daugialypį poveikį mokinių gerovei ir siejasi tiek su internaliais, tiek su eksternaliais sunkumais. Ji pasireiškia skirtingomis formomis: fizine (stumdymas, mušimas) ir santykių (šaipymasis, atskirtis iš grupių) (Turner ir kt., 2006). Nepaisant įvairių sėkmingų intervencijų (Laninga-Wijnen ir kt., 2021), viktimizacija išlieka opia problema tarp paauglių visame pasaulyje: tarptautiniai tyrimai rodo, kad daugiau nei 30% vaikų ir paauglių susiduria su viena ar kita bendraamžių jos forma (Hosozawa ir kt., 2021).

Viktimizacija nevyksta tuščioje erdvėje. Tai yra kompleksinis reiškinys, kurį formuoja sudėtinga individualių ir grupinių veiksnių sąveika. Viktimizacijos raišką veikia tiek grupės charakteristikos (viktimizacijos normos klasėje, mokinių populiarumas, aukų gynimo klasėje normos) (Laninga-Wijnen ir kt., 2021), tiek individualios savybės: fizinis pažeidžiamumas, internalūs sunkumai (Hodges ir Perry, 1999), nepakankami problemų sprendimo gebėjimai, socialinių įgūdžių stoka (Cook ir kt., 2010), padidėjęs emocinis jautrumas (Reijntjes ir kt., 2011) ar žemesnis socialinis bei akademinis statusas (Wynne ir Joo, 2011). Viktimizaciją iš bendraamžių patiriantys paaugliai beveik visuomet susiduria su neigiamomis pasekmėmis, išskyrus atvejus, kai jie pasižymi išlavintais emocijų valdymo gebėjimais (Kaynak ir kt., 2015) arba turi stiprų palaikymą socialinių santykių srityje (Isaacs ir kt., 2008). Neigiamos viktimizacijos pasekmės dažniausiai pasireiškia internaliais ar eksternaliais sunkumais.

Viktimizacijos sąsajos su internaliais sunkumais pasireiškia įvairiomis formomis: vienišumu, nerimu dėl mokyklos, depresijos simptomais, generalizuotu nerimu, sumažėjusia saviverte, suicidinėmis mintimis ir elgesiu, psichoaktyviųjų medžiagų vartojimu bei neigiamu savęs suvokimu (Reijntjes ir kt., 2010). Deja, šios pasekmės

dažnai išlieka ilgai po to, kai viktimizacija nutrūksta (Moore ir kt., 2017). Viktimizaciją patiriantys asmenys, internalizuodami savo patirtį, neretai pradeda kaltinti save racionalizuodami, kad nusipelnė tokio elgesio. Šis internalizuotas požiūris iškreipia jų savęs suvokimą ir susieja jį su patyčiomis, kurias jie patiria (Huitsing ir kt., 2012), o tai dažnai lemia sumažėjusią savivertę ir padidėjusius depresijos simptomus (Garandeau ir Salmivalli, 2019). Šie paaugliai taiko įvairias įveikos strategijas, bandydami prisitaikyti priešiškoje aplinkoje (Rose ir Monda-Amaya, 2012).

Bendraamžių viktimizacija dažnai paskatina mokinius rinktis aktyvesnes gynybos strategijas, kurios gali peraugti į delinkventinį elgesį (Walters, 2021) ir net fizinę agresiją (Sullivan ir kt., 2006). Siekdami išvengti priešiškos aplinkos, mokiniai pradeda nelankyti mokyklos. Tačiau toks vengiantis elgesys dažnai lemia jų susibūrimą su kitais mokyklos nelankančiais mokiniais ir gilesnį įsitraukimą į delinkventinę veiklą, taip bandant išveikti patiriamą emocinį stresą (Rocque ir kt., 2017; Hanish ir Guerra, 2002). Grįžę į mokyklą, šie mokiniai būna akademiškai nepasirengę judėti į priekį. Jie susiduria su pedagogų sankcijomis ir neigiamu požiūriu dėl nelankymo bei pasižymi prastais akademiniais rezultatais. Reaguodami į suvokiamą neteisingumą, jie gali demonstruoti trikdantį elgesį klasėje (Juvonen ir Graham, 2014; Kaynak ir kt., 2015). Nesusitvarkydami su savo emocijomis arba bandydami įtvirtinti savo padėtį klasėje, jie gali pradėti elgtis agresyviai su savo bendraamžiais, kartodami tą patį elgesio modelį, kurį patyrė iš kitų. Šis negebėjimas konstruktyviai veikti socialinėse situacijose gali lemti gilėjančias elgesio problemas ir didėjantį agresyvumą (Kim ir kt., 2006). Dėl savo neigiamos patirties viktimizuojami mokiniai dažnai interpretuoja socialines situacijas kaip grėsmingesnes nei jos yra iš tikrųjų, o tai skatina nepagrįstą agresiją ir paradoksaliai didina pakartotinės viktimizacijos tikimybę ateityje (Burgess ir kt., 2006).

Sėkmingos intervencijos, sumažinusios viktimizaciją klasėse, atskleidė nepageidaujamą šalutinį poveikį - sveiko konteksto paradoksą. Nors intervencijos prieš patyčias iš esmės yra veiksmingos mažinant bendrą patyčių ir viktimizacijos lygį klasėje, jos gali netyčia pakenkti likusioms pavienėms aukoms klasėse, kuriose bendras viktimizacijos skaičius sumažėjo. Tokiose klasėse likusios pavienės aukos patiria dar didesnę atskirtį nuo bendraamžių lyginant su patyčių nepatiriančiais mokiniais. Šis padidėjęs nepanašumas į bendraklasius paverčia mokinius „socialiai nepritapusiais“ ir yra siejamas su rimtesnėmis socialinėmis ir emocinėmis pasekmėmis nei tose klasėse, kur patyčios yra labiau paplitusios (Garandeau ir Salmivalli, 2019).

Aplinkose, kuriose patyčios yra retas reiškinys, viktimizaciją patiriantys mokiniai susiduria su specifiniais iššūkiais: didesniu bendraamžių atstūmimu, žemesniu socialiniu statusu ir sunkumais užmezgant draugystes. Bendravimas su socialiai atskirtu ir "nepritapusiu" bendraklasiu tampa rizikingas, nes gali paveikti kitų mokinių socialinį statusą. Be to, tokioje aplinkoje viktimizaciją patiriantys mokiniai labiau linkę internalizuoti savo patirtį ir kaltinti save, ypač matydami, kad tik nedaugelis kitų mokinių patiria panašias situacijas, o tai neigiamai veikia jų savęs suvokimą (Pan ir kt., 2021). Sveiko konteksto paradoksas plačiau tyrinėtas analizuojant jo sąsajas su internaliais sunkumais, tokiais kaip nerimas ir depresiškumas (Garandeau ir Salmivalli, 2019), tačiau tyrimų apie jo ryšį su eksternaliais sunkumais Vakarų kontekste nėra.

Atliekant bendraamžių viktimizacijos tyrimus svarbu diferencijuoti fizinės ir santykių viktimizacijos formas, nes jos siejasi su skirtingomis psichologinėmis pasekmėmis: fizinė viktimizacija dažniau koreliuoja su eksternaliais sunkumais, o santykių viktimizacija – su internaliais sunkumais (Casper ir Card, 2017). Viktimizacijai vertinti paprastai pasitelkiami du pagrindiniai metodai: savistabos klausimynai ir bendraamžių nominacijos. Kiekvienas metodas pasižymi savitais privalumais ir trūkumais. Savistabos klausimynai geriau atskleidžia vidinius išgyvenimus, atspindėdami aukos subjektyvią patirtį, tačiau dėl tos pačios priežasties gali būti šališki. Bendraamžių nominacijos, priešingai, suteikia patikimesnį ir objektyvesnį viktimizacijos vaizdą socialiniame kontekste, tačiau neparodo kiek viktimizuojamas asmuo pats jaučia neigiamą į jį nukreiptą elgesį (Bouman ir kt., 2012; Baly ir kt., 2014). Šie metodologiniai skirtumai ypač reikšmingi tiriant sveiko konteksto paradoksą. Tyrimų rezultatų skirtumai gali rodyti, kad ne objektyvi socialinė padėtis klasėje, o būtent subjektyvus socialinės atskirties išgyvenimas gali būti labiau susijęs su internalių sunkumų vystymusi (Huitsing ir kt., 2019; Pan ir kt., 2021). Todėl vėlesniuose tyrimuose svarbu aiškiai išskirti viktimizacijos tipus ir jų vertinimo metodus, siekiant geriau suprasti šių reiškinių dinamiką.

Mūsų tyrime taikomas Grupės Aktoriaus-Partnerio Abipusės Priklausomybės Modelis (G-APIM) suteikia metodologinį pagrindą vienu metu vertinti individualios viktimizacijos ir klasės normų sąsajas su internaliais ir eksternaliais sunkumais (Kenny ir Garcia, 2012). G-APIM metodologinis pranašumas pasireiškia tuo, kad vertinant klasės normas, individualaus mokinio rodikliai yra išskiriami iš klasės vidurkio – taip išvengiama statistinio šališkumo, kai individualūs rodikliai gali iškreipti bendrą klasės viktimizacijos vidurkį (Garcia ir kt., 2015). Šis metodas taip pat leidžia įvertinti aprašomųjų klasės viktimizacijos normų neatitikimą ir klasės homogeniškumą kaip reikšmingus kintamuosius, susijusius su internaliais ir eksternaliais sunkumais.

2.1. Tyrimo hipotezės

Didesnis aprašomųjų klasės fizinės ir santykių viktimizacijos normų neatitikimas yra susijęs su augančiu jaunesnių paauglių internalių ir eksternalių sunkumų pasireiškimu per metus:

1. Didesnis aprašomųjų klasės normų neatitikimas bendraamžių nominuotos fizinės viktimizacijos srityje ir didesnis klasės homogeniškumas yra susiję su trikdančio elgesio ir fizinės agresijos didėjimu per metus.
2. Didesnis aprašomųjų klasės normų neatitikimas bendraamžių nominuotos fizinės viktimizacijos srityje ir didesnis klasės homogeniškumas yra susiję su emocinių simptomų ir vienišumo didėjimu per metus.
3. Didesnis aprašomųjų klasės normų neatitikimas bendraamžių nominuotos santykių viktimizacijos srityje ir didesnis klasės homogeniškumas yra susiję su trikdančio elgesio ir fizinės agresijos didėjimu per metus.

4. Didesnis aprašomųjų klasės normų neatitikimas bendraamžių nominuotos santykių viktimizacijos srityje ir didesnis klasės homogeniškumas yra susiję su emocinių simptomų ir vienišumo didėjimu per metus.
5. Didesnis aprašomųjų klasės normų neatitikimas savistabos klausimynais paremtos fizinės viktimizacijos srityje ir didesnis klasės homogeniškumas yra susiję su elgesio problemų ir delinkventinio elgesio didėjimu per metus.
6. Didesnis aprašomųjų klasės normų neatitikimas savistabos klausimynais paremtos fizinės viktimizacijos srityje ir didesnis klasės homogeniškumas yra susiję su emocinių simptomų ir vienišumo didėjimu per metus.
7. Didesnis aprašomųjų klasės normų neatitikimas savistabos klausimynais paremtos santykių viktimizacijos srityje ir didesnis klasės homogeniškumas yra susiję su elgesio problemų ir delinkventinio elgesio didėjimu per metus.
8. Didesnis aprašomųjų klasės normų neatitikimas savistabos klausimynais paremtos santykių viktimizacijos srityje ir didesnis klasės homogeniškumas yra susiję su emocinių simptomų ir vienišumo didėjimu per metus.

3. TYRIMO METODAI

3.1. Dalyviai

Lietuva. Imtį sudarė 541 mokinys (259 mergaitės, 282 berniukai) iš visų septynių valstybinių pagrindinių mokyklų vidutinio dydžio Lietuvos mieste, kuris savo demografiniais rodikliais atitinka bendrąją Lietuvos populiaciją. Visos į tyrimą pakviestos mokyklos sutiko dalyvauti. Imtį sudarė 115 ketvirtos klasės mokinių (M = 9,81, SD = 0,40), 188 penktos klasės mokiniai (M = 10,84, SD = 0,412), 88 šeštos klasės mokiniai (M = 11,86, SD = 0,41) ir 150 septintos klasės mokinių (M = 12,76, SD = 0,44). Mokiniai, gaunantys nemokamą maitinimą, skirtingose mokyklose sudarė nuo 4,3% iki 21,1%. Beveik visi buvo etniniai lietuviai.

JAV. Imtį sudarė 165 mokiniai (80 mergaitės, 85 berniukai) iš vienos valstybinės mokyklos Pietų Floridoje. Ši mokykla buvo pasirinkta tikslingai, nes pagal savo steigimo dokumentus ji privalo atspindėti Floridos mokyklinio amžiaus gyventojų etninę sudėtį ir šeimų pajamų pasiskirstymą. Siekiant užtikrinti mokinių įvairovę, taikoma atsitiktinės atrankos (loterijos) sistema. Tyrime dalyvavo 50 ketvirtos klasės mokinių (M = 9,74, SD = 0,53) ir 115 penktos klasės mokinių (M = 10,68, SD = 0,34). Mokyklos dokumentai parodė, kad 40% mokinių buvo europietiškos kilmės amerikiečiai, 27,3% – ispaniškos kilmės amerikiečiai, 20% – afroamerikiečiai, 4,2% – azijiečių kilmės amerikiečiai, o 8,5% – mišrios ar kitos etninės kilmės mokiniai.

3.2. Procedūra

Tyrimui vykdyti buvo gautas raštiškas tėvų sutikimas ir vaikų pritarimas. Mokinių apklausas, naudodami planšetinius kompiuterius, ramioje mokyklos aplinkoje vykdė parengti tyrimo asistentai. Šio tyrimo duomenys buvo renkami du kartus per vienerius mokslo metus: 2021 m. lapkritį ir 2022 m. sausį. Tyrimą patvirtino mokyklos administracija ir universiteto institucinė etikos komisija (JAV #135501-16) bei etikos komitetas (Lietuva #6/-2020).

Vadovaujantis Cillessen ir Marks (2017) rekomendacijomis, į analizes įtrauktos tik tos klasės, kuriose klausimynus užpildė ne mažiau kaip 60 % mokinių. Galutinę Lietuvos imtį sudarė 29 klasių mokiniai, JAV imtį – 10 klasių mokiniai. Klausimynai iš anglų į lietuvių kalbą buvo išversti dvikalbių tyrimo asistentų komandos, vėliau kita komanda atliko atgalinį vertimą į anglų kalbą. Vertimo skirtumai buvo suderinti diskutuojant. Išversti klausimynai buvo išbandyti pilotiniame tyrime.

Buvo atliktos Monte Karlo simuliacijos su 1 000 pakartojimų (Muthén ir Muthén, 2002) siekiant nustatyti reikiamą imties dydį ir norint užtikrinti pakankamą statistinę galią (80%) statistiškai reikšmingiems efektams ($p<0,05$) aptikti. Rezultatai parodė, kad visos analizės turėjo pakankamą statistinę galią. Duomenys atskleidė, kad mažiems efektams (B=0,20) aptikti reikalinga ne mažesnė nei 550 tiriamųjų imtis.

Trūkstamos reikšmės pirmame etape svyravo tarp 11,6% ir 31,6% (M=16,643%, SD=5,27), tuo tarpu antrame etape trūkstamos reikšmės svyravo tarp 12,2% ir 31,4%

(M=18,4%, SD=7,1). Little'o MCAR (visiškai atsitiktinio duomenų trūkumo) testas parodė, kad trūkstamos reikšmės buvo visiškai atsitiktinės ($\chi2(97673)=98023,577$, p=0,214). Trūkstamos kintamųjų reikšmės buvo priskirtos naudojant EM algoritmą su 25 kartojimais kiekvienam etapui atskirai.

Tiriamųjų nubyrėjimas tarp matavimo etapų vidutiniškai siekė 8,2% (svyravo nuo 6,2% iki 9,9%). Regresijos analizės rezultatai neparodė demografinių duomenų sąsajų su tiriamųjų nubyrėjimu, todėl patvirtinta MCAR prielaida, reikalinga FIML (Full Information Maximum Likelihood) taikymui trūkstamiems bangos lygio duomenims tvarkyti.

3.3. Instrumentai

3.3.1. Bendraamžių nominacijos

Bendraamžių nominacijomis buvo vertinamas fizinės ir santykių viktimizacijos lygis, fizinė agresija ir trikdantis elgesys klasėje. Dalyviai užpildė bendraamžių vertinimo klausimyną, kuriame buvo prašoma nurodyti bendraklasius, atitinkančius tam tikras savybes. Nominacijų skaičius nebuvo ribojamas. *Fizinė viktimizacija* buvo vertinama prašant bendraklasių įvardinti, kas iš jų klasės atitinka apibūdinimą „yra mušamas arba stumdomas kitų". *Santykių viktimizacija* buvo vertinama prašant įvardinti kas iš jų klasės atitinka apibūdinimą „kas nors, iš ko yra šaipomasi ar vadinama negražiais vardais". *Trikdantis elgesys* buvo apibrėžiamas teiginiu „mokiniai, kurie elgiasi netinkamai ar trikdo pamokas", o *fizinė agresija* – „mokiniai, kurie mušasi ar tranko kitus".

3.3.2. Savistabos klausimynai

Fizinei ir santykių viktimizacijai vertinti buvo naudojami klausimai iš „Bendraamžių viktimizacijos: Socialinės patirties klausimyno" (Crick ir Grotpeter, 1996). Fizinė viktimizacija vertinta trimis klausimais apie fizines patyčias (pvz., „Kaip dažnai kitas vaikas tave trankė, spardė ar stumdė?"). Santykių viktimizacija vertinta trimis klausimais apie patyčias, susijusias su santykiais (pvz., „Kaip dažnai kitas vaikas tave pravardžiavo ar iš tavęs šaipėsi?").

Elgesio problemoms ir *emociniams simptomams* vertinti buvo naudojami klausimai iš „Galių ir sunkumų klausimyno" (Goodman, 1997). Elgesio problemos vertintos 5 klausimais apie probleminį elgesį (pvz., „Aš laužau taisykles namie, mokykloje ir kitur?"), o emociniai simptomai – 6 klausimais apie emocinius iššūkius (pvz., „Aš daug nerimauju?").

Delinkventiniam elgesiui matuoti naudoti 4 klausimai, paremti Bendixen ir Olweus (1999) tyrimais (pvz., „Esu ėmęs/usi daiktus iš parduotuvės už juos nesumokėjęs/usi").

Vienišumui vertinti tiriamieji atsakė į 3 klausimus, paremtus vienišumo skale (Parker ir Asher, 1993) (pvz., „Mokykloje jaučiuosi vienas/a").

Visi klausimynų atsakymai buvo žymimi Likert skalėje nuo 1 iki 5. Visų klausimynų vidinio suderinamumo rodiklis Cronbach α svyravo nuo .734 iki .940. Patvirtinančioji

faktorinė analizė atskleidė tinkamus kintamųjų svorius, o klausimynų matavimo invariantiškumo analizė patvirtino jų stabilumą laikui einant.

3.4. Duomenų analizė

Hipotezei, kad didesnis klasės viktimizacijos normų neatitikimas yra susijęs su padidėjusiais internaliais ir eksternaliais sunkumais per metus, tikrinti buvo taikomas Grupės Aktoriaus-Partnerio abipusės priklausomybės Modelis (G-APIM; Garcia ir kt., 2015; Kenny and Garcia, 2012). Atskiri modeliai buvo taikomi savistabos ir bendraamžių nominacijomis grįstiems atsakymams bei fizinei ir santykių viktimizacijai.

Pirmame etape buvo lyginami 7 skirtingi G-APIM modeliai (Garcia ir kt., 2015; Kaufman ir kt., 2022), siekiant nustatyti geriausiai duomenis atitinkantį modelį. Pirmasis modelis yra „*tuščias modelis*“, kuris įtraukia tik autoregresinį taką *r*, tačiau neįtraukia nei vieno G-APIM kintamojo. Antrasis modelis yra „*Pagrindinių efektų*“ modelis, kuris įtraukia individualią viktimizaciją (kintamasis *x*, takas *a*) ir aprašomąsias klasės normas (klasės viktimizacijos įverčių vidurkį, kintamasis *x*', takas *b*) kaip nepriklausomus kintamuosius, prognozuojančius internalius ir eksternalius sunkumus. Trečiasis modelis yra „*Asmens tapatumo*“ modelis, kuris šalia *pagrindinių efektų* modelio kintamųjų įtraukia klasės viktimizacijos normų neatitikimo nepriklausomą kintamąjį (skirtumą tarp individualios patiriamos viktimizacijos ir klasės viktimizacijos vidurkio) (kintamasis *i*, takas *c*). Ketvirtasis modelis yra „*pilnas*“ modelis, kuris papildomai įtraukia ir klasės homogeniškumo kintamąjį (kintamasis i', takas d). 1 paveikslėlyje pateikta *pilno* modelio schema.

Greta šių keturių pagrindinių modelių buvo taikomi papildomi modeliai pagrindinei hipotezei tikrinti. Pirmasis papildomas modelis yra „*kontrasto*“ modelis, kuris apima tuos pačius kintamuosius kaip *pagrindinių efektų* modelis, tačiau individualios viktimizacijos ir klasės viktimizacijos vidurkio takai (*a* ir *b*) nustatyti kaip lygūs, bet priešingo ženklo, taip tikrinant hipotezę, kad mokinys lygina save su kitais bendraklasiais ir viktimizacijos sąsajos su patiriamais sunkumais priklauso nuo klasės viktimizacijos normų. Antrasis papildomas modelis yra „*Panašumo kontrasto*“. Šiuo atveju į modelį įtraukti visi kintamieji kaip ir *pilname* modelyje, tačiau klasės viktimizacijos normų neatitikimo ir klasės homogeniškumo takai (*c* ir *d*) nustatyti kaip lygūs, bet priešingo ženklo, tikrinant hipotezę, kad normų neatitikimas geriau prognozuoja priklausomą kintamąjį homogeniškoje klasėje. Galiausiai tikrintas „*pilno kontrasto*“ modelis, kuriame viktimizacijos ir klasės viktimizacijos vidurkio bei klasės viktimizacijos normų neatitikimo ir klasės homogeniškumo kintamųjų takai (*a* ir *b; c* ir *d*) yra nustatyti kaip lygūs, tačiau su priešingu ženklu, tikrinant abi hipotezes, minėtas *kontrasto* ir *panašumo kontrasto* modeliuose.

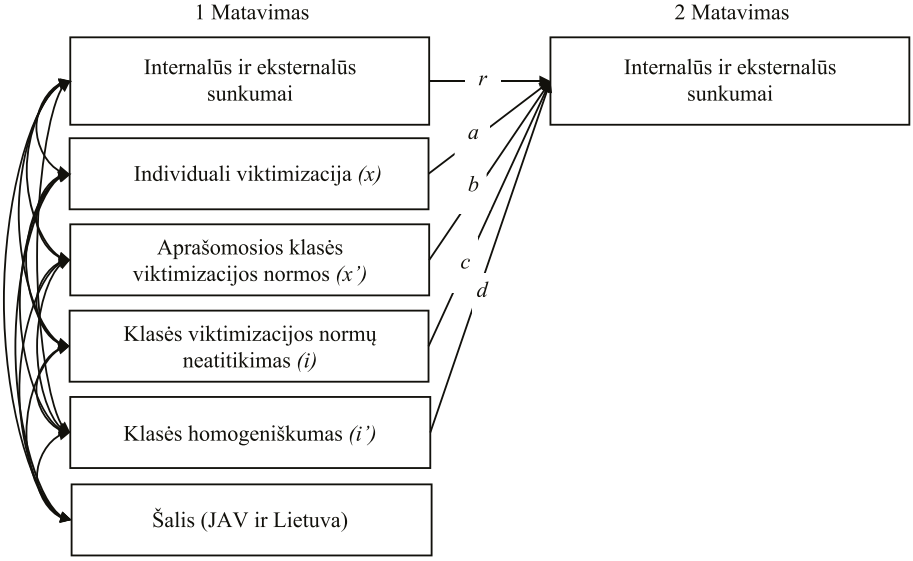
Analizės buvo atliktos naudojant *Mplus 8.4* (Muthén ir Muthén, 1998-2018) programinę įrangą, taikant didžiausio tikėtinumo (ML) metodą. Visuose modeliuose visi 1 paveiksle pavaizduoti takai (*a, b, c* ir *d*) buvo analizuojami, tačiau modeliuose, kuriuose tam tikri takai buvo nereikalingi, jie buvo prilyginami nuliui. Visiškai pašalinus kintamuosius iš modelių išryškėjo tokie patys statistiškai reikšmingi rezultatai.

Siekiant gauti modelio tinkamumo statistinius rodiklius, į analizę buvo įtrauktas šalies (Lietuva arba JAV) kintamasis kaip kovariantė.

Geriausiai duomenis atitinkančiam modeliui pasirinkti buvo lyginami SABIC (mažos imties Bajeso informacijos kriterijus) ir RMSEA (vidutinė kvadratinė aproksimacijos paklaida) modelio tinkamumo rodikliai. Modeliai buvo tikrinami sudėtingėjimo principu, pradedant nuo *tuščio* modelio ir įtraukiant papildomus kintamųjų takus iki *pilno* modelio. Papildomai į modelį įtrauktas takas turėjo būti statistiškai reikšmingas (pvz., jei *asmens tapatumo* modelis geriau atitiko duomenis nei *pagrindinių efektų* modelis, tačiau klasės viktimizacijos normų neatitikimo kintamasis reikšmingai neprognozavo priklausomo kintamojo, buvo pasirenkamas *pagrindinių efektų* modelis; Garcia ir kt., 2015). Pasirinkti modeliai taip pat turėjo atitikti ir įprastus modelio tinkamumo rodiklius. Pasirinkto modelio tinkamumui vertinti buvo taikomi RMSEA, kuris turėjo būti <0.08, ir CFI, kuris turėjo būti >0.95 (Hu ir Bentler, 1999).

Tyrimo pabaigoje buvo palygintos kelios grupės siekiant nustatyti, ar pasirinktų modelių rezultatai ir atskiri takai skiriasi tarp berniukų ir mergaičių, tarp pradinės ir pagrindinės mokyklos mokinių bei tarp mokinių Lietuvoje ir JAV.

1 paveikslėlis. *G-APIM Koncepcinis „Pilnas" modelis.*



Pastaba. Paveikslėlyje vaizduojamas longitudinis *Pilnas modelis*, kuris įtraukia autoregresinį taką (*r*), individualios viktimizacijos (*a*), klasės viktimizacijos vidurkio (*b*), viktimizacijos normų neatitikimo (*c*) ir klasės homogeniškumo takus (*d*), taip pat vietovę kaip kintamąjį.

4. REZULTATAI

4.1. Preliminari analizė

4.1.1. Koreliacinė analizė

3 lentelėje pateikti kintamųjų tarpusavio ryšių koreliacijos koeficientai (Pearsoń o r). Kaip ir buvo numatyta, dauguma tirtų kintamųjų turėjo statistiškai reikšmingus tarpusavio ryšius. Galima atkreipti dėmesį, kad pirmojo matavimo elgesio problemos neturėjo statistiškai reikšmingo ryšio su bendraamžių įvertinta santykių viktimizacija (r=.058 [-.018; 136]). Pirmojo matavimo bendraamžių nominuota fizinė agresija nebuvo susijusi su vienišumu (r=.059 [-.041; 162]), o emociniai simptomai nebuvo susiję su bendraamžių nominuota fizine viktimizacija (r=.069 [-.016; 158]).

Žvelgiant į antro matavimo kintamųjų sąsajas, galima pastebėti, kad dauguma kintamųjų turėjo statistiškai reikšmingus tarpusavio ryšius. Visgi vienišumas neturėjo reikšmingo ryšio su bendraamžių vertintu trikdančiu elgesiu (r=.031 [-.063; 120]) ir bendraamžių vertinta fizine agresija (r=.012 [-.079; 116]). Bendraamžių vertinta fizinė viktimizacija neturėjo reikšmingo ryšio su emociniais simptomais (r=-.026 [-.103; 078]).

Apibendrinant statistiškai reikšmingi ryšiai tarp savistabos klausimynų ir bendraamžių įvertinimų buvo silpni, koreliacijos koeficientai svyravo nuo r=0,081 iki r=0,247.

4.1.2. Lyties, ugdymo pakopos ir vietovės skirtumai

Buvo atliktos 2 (laikas) x 2 (lytis), 2 (laikas) x 2 (pradinis ir pagrindinis ugdymas) ir 2 (laikas) x 2 (vieta) ANOVA analizės su visais kintamaisiais (savistabos ir bendraamžių nominacijų) kaip priklausomaisiais kintamaisiais. Laikas buvo kartotinis matmuo.

Tarp kintamųjų pokyčių laikui bėgant pagal lytį išryškėjo tik vienas skirtumas. Berniukų imtyje, laikui bėgant, sumažėjo bendraamžių vertinama fizinė viktimizacija (F(1, 327)=12.408, p=.000; d=.389), kuri nesumažėjo mergaičių imtyje (F(1, 300)=0.036, p=.849; d=.000).

Lyginant vidurkių pokyčius tarp pradinės ir vidurinės mokyklos mokinių, išryškėjo keli skirtumai. Pradinės mokyklos mokinių imtyje, per metus sumažėjo emocinių simptomų (F(1, 253)=5.515, p=.020; d=.292), tačiau jie nepasikeitė pagrindinio ugdymo mokinių imtyje (F(1, 386)=2.885, p=.090; d=.167). Taip pat sumažėjo pradinės mokyklos mokinių savistabos klausimynais matuota fizinė viktimizacija (F(1, 235)=6.275, p=.013; d=.326), bet pagrindinės mokyklos mokinių fizinė viktimizacija reikšmingai nepakito (F(1, 386)=.810, p=.369; d=.089). Bendraamžių nominuota fizinė viktimizacija sumažėjo pradinės mokyklos mokinių imtyje (F(1, 277)=10.961, p=.001; d=.397), tačiau nepasikeitė pagrindinės mokyklos mokinių imtyje (F(1, 421)=1.041, p=.308; d=.089). Bendraamžių nominuota santykių viktimizacija padidėjo pradinės mokyklos mokinių imtyje (F(1, 277)=4.690, p=.031; d=.263) ir sumažėjo pagrindinės mokyklos mokinių imtyje (F(1, 421)=4.244, p=.040; d=.201).

Kaip tikėtasi, reikšmingų sąveikų tarp šalies ir laiko nepastebėta, tai reiškia, kad tiek Lietuvos, tiek JAV imtyse matuoti kintamieji per metus keitėsi arba išliko beveik stabilūs, nepaisant pradinių lygių skirtumų.

1 lentelė. *Koreliacijos ir autokoreliacijos koeficientai tarp įtrauktų pirmo ir antro matavimų kintamųjų.*

	1	2	3	4	5	6	7	8	9	10
1. SK Elgesio problemos	.578**	.427**	.119**	.143**	.503**	.399**	.118**	.500**	.058	.500**
2. SK Delinkventinis elgesys	.533**	.421**	.109*	.116**	.128**	.222**	.176**	.387**	.137**	.314**
3. BN Trikdantis elgesys	.247**	.222**	.886**	.813**	-.091*	.040	.490**	.129**	.355**	.108**
4. BN Fizinė agresija	.225**	.149**	.787**	.850**	-.095*	.059	518**	.219**	.427**	.135**
5. SK Emociniai simptomai	.502**	.205**	-.136**	-.139	.659**	.548**	.069	.355**	.046**	.442**
6. SK Vienišumas	.416**	.266**	.031	.012	.557**	.543**	.169**	.458**	.229**	.624**
7. BN Fizinė viktimizacija	.064	.096*	.307**	.368**	-.026	.120**	.562**	.328**	.633**	.248**
8. SK Fizinė viktimizacija	.530**	.430**	.259**	.286**	.296**	.404**	.256**	.541**	.273**	.729**
9. BN Santykių viktimizacija	.127**	.132**	.223**	.244**	.081	.215**	.654**	.275**	.647**	.266**
10. SK Santykių viktimizacija	.503**	.371**	.196**	.196**	.388**	.560**	.233**	.733**	.293**	.563**

Pastaba. N=706. Pirmo matavimo rezultatai pateikti virš įstrižainės. Antro matavimo rezultatai pateikti po įstrižaine. Autokoreliacijos pateiktos įstrižainėje. SK = Savistabos klausimynais paremti; BN = Bendraamžių nominuota;

**p<.05. **p<.01.*

4.2. Viktimizacija prognozuoja internalius ir eksternalius sunkumus: Grupės-Aktoriaus Partnerio Abipusės Priklausomybės Modelio rezultatai

4.2.1. Bendraamžių nominuota fizinė viktimizacija prognozuoja bendraamžių nominuotą trikdantį elgesį, fizinę agresiją bei savistabos klausimynais vertintą vienišumą ir emocinius simptomus

Bendraamžių nominuotas trikdantis elgesys.

Tiriant bendraamžių nominuotos fizinės viktimizacijos sąsajas su bendraamžių nominuotu trikdančių elgesiu, geriausiai duomenis atitinkantis modelis buvo *panašumo kontrasto* ($\chi 2(2)=0.069$, p=.966; *RMSEA*=.000[.000;.000]; *CFI*=1). Šiuo modeliu buvo tikrinama prielaida, kad didžiausias trikdomojo elgesio padidėjimas būdingas tiems mokiniams, kurie labiausiai neatitinka aprašomųjų klasės normų, kai kiti mokiniai klasėje yra labiau homogeniški.

2 lentelėje pateikiami longitudinio *panašumo kontrasto* G-APIM modelio rezultatai su 4 nepriklausomais kintamaisiais. Pirmo matavimo bendraamžių nominuotos fizinės viktimizacijos klasės normų neatitikimas ir pirmo matavimo viktimizacijos klasėje homogeniškumas prognozavo antro matavimo trikdantį elgesį. Kuo labiau mokiniai skyrėsi nuo savo bendraamžių pagal pradinę fizinę viktimizaciją homogeniškesnėse klasėse (išskyrus tiriamą asmenį), tuo labiau mokinio trikdantis elgesys sustiprėjo nuo pirmo iki antro matavimo. Klasės viktimizacijos normų neatitikimas labiau prognozavo trikdantį elgesį tose klasėse, kuriose kiti mokiniai mažiau skyrėsi vienas nuo kito, patvirtinant neatitikimo hipotezę. Individuali patiriama fizinė viktimizacija (x) ir klasės aprašomosios fizinės viktimizacijos normos (x') reikšmingai neprognozavo antro matavimo trikdančio elgesio. Pradinė mokinio patiriama viktimizacija ir pradiniai klasės viktimizacijos lygiai nebuvo susiję su trikdančio elgesio pokyčiais.

Bendraamžių nominuota fizinė agresija.

Tiriant bendraamžių nominuotos fizinės viktimizacijos sąsajas su bendraamžių nominuota fizine agresija, geriausiai duomenis atitinkantis modelis buvo *asmens tapatumo* modelis ($\chi 2(2)=0.429$, p=.807; *RMSEA*=.000[.000;.046]; *CFI*=1).

2 lentelėje pateikiami *asmens tapatumo* G-APIM modelio rezultatai su 3 nepriklausomais kintamaisiais. Pirmo matavimo klasės fizinės viktimizacijos normų neatitikimas ir žemesnės klasės viktimizacijos normos prognozavo antro matavimo bendraamžių nominuotą fizinę agresiją. Kuo labiau mokiniai skyrėsi nuo savo bendraamžių pagal pradinę bendraamžių nominuotą viktimizaciją, tuo labiau jų fizinė agresija padidėjo nuo pirmo iki antro matavimo. Kuo žemesnės buvo fizinės viktimizacijos klasės normos (išskyrus tiriamą asmenį), tuo labiau nuo pirmo iki antro matavimo padidėjo mokinio fizinė agresija. Šie rezultatai patvirtina neatitikimo hipotezę, kadangi klasės viktimizacijos normų neatitikimas prognozavo fizinę agresiją, nors klasės homogeniškumas į modelį nebuvo įtrauktas. Bendraamžių nominuota individuali viktimizacija

(x) reikšmingai neprognozavo fizinės agresijos padidėjimo. Pradinė mokinio viktimizacija nebuvo susijusi su fizinės agresijos pokyčiais tarp pirmojo ir antrojo matavimo.

Vienišumas.

Tiriant bendraamžių nominuotos fizinės viktimizacijos sąsajas su savistabos klausimynais matuotu vienišumu, geriausiai duomenis atitinkantis modelis buvo *tuščias* modelis ($\chi 2(5)=4.994$, p=.416; *RMSEA*=.000[.000;.052]; *CFI*=1). Tai rodo, kad nei individuali fizinė viktimizacija, nei aprašomosios klasės viktimizacijos normos, nei klasės viktimizacijos normų neatitikimas, nei klasės homogeniškumas reikšmingai neprognozuoja vienišumo pokyčių. Šie rezultatai nesutampa su neatitikimo hipoteze. Papildoma tuščio modelio analizė nebuvo atlikta.

Emociniai simptomai.

Tiriant bendraamžių nominuotos fizinės viktimizacijos sąsajas su savistabos klausimynais matuotais emociniais simptomais, geriausiai duomenis atitinkantis modelis buvo *pilnas* modelis ($\chi 2(1)=0.135$, p=.713; RMSEA=.000[.000;.072]; CFI=1).

2 lentelėje pateikiami *pilno* G-APIM modelio rezultatai su 4 nepriklausomais kintamaisiais. Pirmo matavimo aprašomosios klasės viktimizacijos normos ir klasės viktimizacijos homogeniškumas prognozavo antro matavimo emocinių simptomų lygį. Kuo aukštesnės buvo aprašomosios klasės viktimizacijos normos ir kuo aukštesnis grupės homogeniškumas, tuo labiau padidėjo savistabos klausimynais matuoti emociniai simptomai per metus. Mokiniai klasėse, kuriose yra aukštos viktimizacijos normos, tačiau taip pat aukštas viktimizacijos homogeniškumas (kai kiti mokiniai yra panašesni vienas į kitą pagal viktimizaciją), pasižymi didėjančiais emociniais simptomais. Šie rezultatai nepatvirtina neatitikimo hipotezės, kadangi nei individuali viktimizacija, nei klasės normų neatitikimas neprognozavo emocinių simptomų. Papildoma analizė nebuvo atlikta.

2 lentelė. *G-APIM rezultatai iš geriausiai tinkančių modelių: bendraamžių nominuota fizinė viktimizacija prognozuoja trikdantį elgesį ir fizinę agresiją bei savistabos klausimynais vertintą vienišumą ir emocinius simptomus.*

1 Matavimo Nepriklausomas Kintamasis	β	*95% PI*	*p*
Priklausomas kintamasis: 2 Matavimo Trikdantis elgesys			
Panašumo kontrasto modelis			
Trikdantis elgesys	.863	[.837; .889]	.000
Individuali viktimizacija (*x*)	-.058	[-.139; .022]	.156
Aprašomosios klasės viktimizacijos normos (*x'*)	-.006	[-.053; .042]	.812
Klasės viktimzacijos normų neatitikimas (*i*)	-.116	[-.197; -.036]	.005
Klasės viktimizacijos homogeniškumas (*i'*)	**.064**	**[.019; .108]**	**.005**
Priklausomas kintamasis: 2 Matavimo Fizinė agresija			
Asmens tapatumo modelis			
Fizinė agresija	.767	[.730; .803]	.000
Individuali viktimizacija (*x*)	-.054	[-.135; .026]	.183
Aprašomosios klasės viktimizacijos normos (*x'*)	-.054	[-.098; -.011]	.014
Klasės viktimzacijos normų neatitikimas (*i*)	**-.193**	**[-.274; .-112]**	**.000**
Priklausomas kintamasis: 2 Matavimo Vienišumas			
Tuščias modelis			
Vienišumas	**.544**	**[.489; .599]**	**.000**
Priklausomas kintamasis: 2 Matavimo Emociniai simptomai			
Pilnas modelis			
Emociniai simptomai	.650	[.605; .695]	.000
Individuali viktimizacija (*x*)	-.042	[-.177; .093]	.542
Aprašomosios klasės viktimizacijos normos (*x'*)	.173	[.006; .285]	.003
Klasės viktimzacijos normų neatitikimas (*i*)	.044	[-.137; .450]	.531
Klasės viktimizacijos homogeniškumas (*i'*)	.147	[-.209; -.004]	.014

Pastaba: N=706. Visi modeliai įtraukia autoregresinį taką ir šalį kaip kovariantę. Panašumo kontrasto modelyje takai *c* ir *d* (*i* ir *i'*) yra nustatyti, kad būtų lygūs, bet priešingos krypties.

4.2.2. Bendraamžių nominuota santykių viktimizacija prognozuoja bendraamžių nominuotą trikdantį elgesį, fizinę agresiją bei savistabos klausimynais vertintą vienišumą ir emocinius simptomus

Bendraamžių nominuotas trikdantis elgesys.

Vertinant bendraamžių nominuotos santykių viktimizacijos sąsajas su bendraamžių nominuotu trikdančių elgesiu, geriausiai tinkantis modelis buvo *tuščias* modelis ($\chi^2(5)=9{,}896$, p=.078; RMSEA=.037[.000;.071]; CFI=.996). Tai rodo, kad nei individuali santykių viktimizacija, nei klasės aprašomosios viktimizacijos normos, nei klasės viktimizacijos normų neatitikimas, nei klasės viktimizacijos normų homogeniškumas reikšmingai neprognozavo bendraamžių nominuoto trikdančio elgesio pokyčių. Šie rezultatai neatitinka mūsų neatitikimo hipotezės. Tolesnė tuščio modelio analizė nebuvo atlikta. 3 lentelėje pateikiami rezultatai.

Bendraamžių nominuota fizinė agresija.

Vertinant bendraamžių nominuotos santykių viktimizacijos sąsajas su fizine agresija, geriausiai tinkantis modelis buvo *tuščias* modelis ($\chi 2(5)=8.492$, p=.131; *RMSEA*=.031[.000;.067]; *CFI*=.996). Tai rodo, kad nei individuali santykių viktimizacija, nei klasės aprašomosios viktimizacijos normos, bei klasės viktimizacijos normų neatitikimas, nei klasės viktimizacijos normų homogeniškumas reikšmingai neprognozavo pokyčių bendraamžių nominuotoje fizinėje agresijoje per metus. Šie rezultatai neatitinka mūsų neatitikimo hipotezės. Tolesnė tuščio modelio analizė nebuvo atlikta. 3 lentelėje pateikiami rezultatai.

Vienišumas

Vertinant bendraamžių nominuotos santykių viktimizacijos sąsajas su vienišumu, geriausiai tinkantis modelis buvo *pilno kontrasto* modelis ($\chi 2(3)=0.274$, p=.964; R*MSEA*=.000[.000;.000]; *CFI*=1). Šis modelis tikrina prielaidą, kad viktimizuojami mokiniai, kurie skiriasi nuo aprašomųjų klasės viktimizacijos normų, kol kiti mokiniai klasėje yra labiau homogeniški, yra vienišesni.

3 lentelėje pateikiami rezultatai. Kuo labiau mokiniai skyrėsi nuo savo bendraamžių pagal pradinę bendraamžių nominuotą santykių viktimizaciją ir kuo homogeniškesnė buvo jų klasė (išskyrus tiriamą asmenį) pagal pradinę viktimizaciją, tuo labiau didėjo mokinio vienišumas nuo pirmo iki antro matavimo. Aprašomųjų klasės viktimizacijos normų neatitikimas prognozuoja vienišumą, kai mokiniai yra klasėse, kuriose kiti mokiniai yra panašesni vieni į kitus pagal patiriamą viktimizaciją. Tai patvirtina neatitikimo hipotezę. Pirmo matavimo bendraamžių nominuota individuali viktimizacija (x) ir pirmo matavimo klasės aprašomosios viktimizacijos normos (x') reikšmingai neprognozavo antro matavimo vienišumo.

Emociniai simptomai.

Vertinant bendraamžių nominuotos santykių viktimizacijos sąsajas su emociniais simptomais, geriausiai tinkantis modelis buvo *tuščias* modelis ($\chi 2(5)=4.994$, p=.416; R*MSEA*=.000[.000;.052]; *CFI*=1). Tai rodo, kad nei individuali santykių viktimizacija, nei klasės aprašomosios viktimizacijos normos, nei klasės viktimizacijos normų

neatitikimas, nei klasės viktimizacijos normų homogeniškumas reikšmingai neprognozavo emocinių simptomų pokyčių per metus. Šie rezultatai neatitinka mūsų hipotezės. 3 lentelėje pateikiami rezultatai.

3 lentelė. *G-APIM rezultatai iš geriausiai tinkančių modelių: bendraamžių nominuota santykių viktimizacija prognozuoja bendraamžių nominuotą trikdantį elgesį ir fizinę agresiją bei vienišumą ir emocinius simptomus.*

1 Matavimo Nepriklausomas Kintamasis	β	*95% PI*	*p*
Priklausomas kintamasis: 2 Matavimo Trikdantis elgesys			
Tuščias modelis			
Trikdantis elgesys	**.886**	**[.870; .901]**	**.000**
Priklausomas kintamasis: 2 Matavimo Fizinė agresija			
Tuščias modelis			
Fizinė agresija	**.835**	**[.812; .857]**	**.000**
Priklausomas kintamasis: 2 Matavimo Vienišumas			
Pilno kontrasto modelis			
Vienišumas	**.528**	**[.471; .586]**	**.000**
Individuali viktimizacija (*x*)	-.156	[-.342; .031]	.102
Aprašomosios klasės viktimizacijos normos (*x'*)	.051	[-.010; .113]	.102
Klasės viktimzacijos normų neatitikimas (*i*)	**-.229**	**[-.415; -.043]**	**.016**
Klasės viktimizacijos homogeniškumas (*i'*)	**.105**	**[.020; .190]**	**.016**
Priklausomas kintamasis: 2 Matavimo Emociniai simptomai			
Tuščias modelis			
Emociniai simptomai	**.654**	**[.610; .698]**	**.000**

Pastaba: N=706. Visi modeliai įtraukia autoregresinį taką ir šalį kaip kovariantę. *Pilno kontrasto* modelyje takai *a* ir *b* (*x* ir *x'*) bei *c* ir *d* (*i* ir *i'*) yra nustatyti kaip lygiaverčiai, bet priešingi vienas kitam.

Reikšmingi rezultatai, kai p<.05, paryškinti.

4.2.3. Savistabos klausimynais vertinta fizinė viktimizacija prognozuoja elgesio problemas, delinkventinį elgesį, vienišumą ir emocinius simptomus

Elgesio problemos.

Vertinant savistabos klausimynais matuotos fizinės viktimizacijos sąsajas su elgesio problemomis, geriausiai tinkantis modelis buvo *pilno kontrasto* modelis ($\chi 2(3)=1.088$, p=.779; R*MSEA*=.000[.000;.042]; *CFI*=1). Šis modelis tikrina prielaidą, kad viktimizuojami mokiniai kurie skiriasi nuo aprašomųjų klasės viktimizacijos normų, kol kiti mokiniai klasėje yra labiau homogeniški, patiria daugiau elgesio problemų.

4 lentelėje pateikiami *pilno kontrasto* G-APIM modelio su 4 nepriklausomais kintamaisiais rezultatai. Pirmo matavimo klasės viktimizacijos normų neatitikimas ir klasės viktimizacijos homogeniškumas prognozavo antro matavimo elgesio problemas. Kuo labiau mokiniai skyrėsi nuo savo bendraamžių pagal patiriamą fizinę viktimizaciją ir kuo homogeniškesnė buvo jų klasė, tuo labiau pasireiškė mokinio elgesio problemos nuo pirmo iki antro matavimo. Aprašomųjų klasės viktimizacijos normų neatitikimas prognozuoja elgesio problemas, kai mokiniai yra klasėse, kuriose kiti mokiniai yra panašesni vieni į kitus pagal patiriamą viktimizaciją. Tai patvirtina neatitikimo hipotezę. Pirmo matavimo bendraamžių nominuota individuali viktimizacija (x) ir pirmo matavimo klasės aprašomosios viktimizacijos normos (x') reikšmingai neprognozavo antro matavimo elgesio problemų.

Delinkventinis elgesys.

Vertinant savistabos klausimynais matuotos fizinės viktimizacijos sąsajas su delinkventiniu elgesiu, geriausiai tinkantis modelis buvo *asmens tapatumo* modelis ($\chi 2(2)=0.503$, p=.777; R*MSEA*=.000[.000;.049]; *CFI*=1).

4 lentelėje pateikiami *asmens tapatumo* G-APIM modelio su 3 nepriklausomais kintamaisiais rezultatai. Pirmo matavimo klasės viktimizacijos normų neatitikimas priartėjo prie reikšmingumo (p = .051), prognozuojant antro matavimo delinkventinį elgesį. Pirmo matavimo klasės aprašomosios viktimizacijos normos neigiamai prognozavo antro matavimo delinkventinį elgesį. Kuo labiau mokiniai skyrėsi nuo savo bendraamžių pagal pradinę fizinę viktimizaciją ir kuo žemesnės buvo aprašomosios klasės fizinės viktimizacijos normos, tuo labiau ryškėjo delinkventinis elgesys nuo pirmo iki antro matavimo. Aprašomųjų klasės viktimizacijos normų neatitikimas prognozuoja delinkventinio elgesio augimą per metus. Tai patvirtina neatitikimo hipotezę. Pirmo matavimo savistabos klausimynais matuota individuali viktimizacija (x) reikšmingai neprognozavo antro matavimo delinkventinio elgesio.

Vienišumas.

Vertinant savistabos klausimynais matuotos fizinės viktimizacijos sąsajas su vienišumu, geriausiai tinkantis modelis buvo *kontrasto* modelis ($\chi 2(4)=3.994$, p=.406; R*MSEA*=.000[.000;.057]; *CFI*=1). Juo tikrinama prielaida, kad individuali patiriama viktimizacija bei aprašomosios klasės viktimizacijos normos priešingomis kryptimis prognozuoja vienišumą.

4 lentelėje pateikiami G-APIM *kontrasto* modelio su 2 nepriklausomais kintamaisiais rezultatai. Pirmo matavimo individuali viktimizacija teigiamai, o pirmo matavimo klasės aprašomosios viktimizacijos normos neigiamai prognozavo antro matavimo vienišumą. Mokinių patiriama viktimizacija ir klasės viktimizacijos normos priešingai (didesnė viktimizacija ir žemesnės viktimizacijos normos) prognozavo mokinio vienišumo augimą per metus.

Emociniai simptomai.

Vertinant savistabos klausimynais matuotos fizinės viktimizacijos sąsajas emociniais simptomais, geriausiai tinkantis modelis buvo *tuščias* modelis ($\chi 2(5)=6.012$, p=.305; *RMSEA*=.017[.000;.057]; *CFI*=.998). Tai rodo, kad nei individuali fizinė viktimizacija, nei klasės aprašomosios viktimizacijos normos, nei klasės viktimizacijos normų neatitikimas, nei klasės viktimizacijos normų homogeniškumas reikšmingai neprognozuoja emocinių simptomų pokyčių. Šie rezultatai neatitinka mūsų hipotezės.

4.2.4. Savistabos klausimynais vertinta santykių viktimizacija prognozuoja elgesio problemas, delinkventinį elgesį, vienišumą ir emocinius simptomus

Elgesio problemos.

Vertinant savistabos klausimynais matuotos santykių viktimizacijos sąsajas su elgesio problemomis, geriausiai duomenis atitiko *pagrindinių efektų* modelis ($\chi 2(3)=1.265$, p=.737; R*MSEA*=.000[.000;.045]; *CFI*=1). Juo buvo tikrinama prielaida, kad individuali viktimizacija ir klasės aprašomosios viktimizacijos normos prognozuoja elgesio problemas.

5 lentelėje pateikiami *pagrindinių efektų* G-APIM modelio su 2 nepriklausomais kintamaisiais rezultatai. Pirmo matavimo individuali viktimizacija prognozavo antro matavimo elgesio problemas. Kuo daugiau viktimizacijos mokiniai patyrė pirmo matavimo metu, tuo labiau padidėjo jų elgesio problemos antro matavimo metu. Klasės aprašomosios viktimizacijos normos reikšmingai neprognozavo savistabos klausimynais vertintų elgesio problemų.

Delinkventinis elgesys.

Vertinant savistabos klausimynais matuotos santykių viktimizacijos sąsajas su delinkventiniu elgesiu, geriausiai duomenis atitiko *panašumo kontrasto* modelis ($\chi 2(2)=0.021$, p=.942; *RMSEA*=.000[.000;.000]; *CFI*=1). Juo tikrinama prielaida, kad delinkventiniu elgesiu labiau pasižymi tie mokiniai, kurie labiau skiriasi nuo aprašomųjų klasės viktimizacijos normų, kol kiti mokiniai klasėje yra labiau homogeniški.

5 lentelėje pateikiami *panašumo kontrasto* G-APIM modelio su 4 nepriklausomais kintamaisiais rezultatai. Pirmo matavimo klasės viktimizacijos normų neatitikimas ir klasės viktimizacijos homogeniškumas priešingai prognozavo antro matavimo delinkventinį elgesį. Kuo labiau mokiniai skyrėsi nuo savo bendraamžių pagal patiriamą viktimizaciją, ir kuo homogeniškesnė viktimizacijos klausimu buvo jų klasė, tuo labiau didėjo individualus mokinio delinkventinis elgesys nuo pirmo iki antro matavimo.

Aprašomųjų klasės viktimizacijos normų neatitikimas labiau prognozuoja delinkventinį elgesį klasėse, kuriose kiti mokiniai mažiau skiriasi vienas nuo kito. Tai patvirtina neatitikimo hipotezę. Pirmo matavimo individuali viktimizacija (x) ir pirmo matavimo klasės aprašomosios viktimizacijos normos (x') reikšmingai neprognozavo antro matavimo delinkventinio elgesio.

4 lentelė. *G-APIM rezultatai iš geriausiai tinkančių modelių: savistabos klausimynais matuota fizinė viktimizacija prognozuoja elgesio problemas, delinkventinį elgesį, vienišumą ir emocinius simptomus.*

1 Matavimo Nepriklausomas Kintamasis	β	*95% PI*	*p*
Priklausomas kintamasis: 2 Matavimo Elgesio problemos			
Pilno kontrasto modelis			
Elgesio problemos	**.540**	**[.477; .604]**	**.000**
Individuali viktimizacija (*x*)	-.027	[-.161; .107]	.690
Aprašomosios klasės viktimizacijos normos (*x'*)	.009	[-.037; .056]	.690
Klasės viktimziacijos normų neatitikimas (*i*)	**-.151**	**[-.286; -.016]**	**.028**
Klasės viktimizacijos homogeniškumas (*i'*)	**.082**	**[.009; .156]**	**.028**
Priklausomas kintamasis: 2 Matavimo Delinkventinis elgesys			
Asmens tapatumo modelis			
Delinkventinis elgesys	**.372**	**[.298; .446]**	**.000**
Individuali viktimizacija (*x*)	-.001	[-.148; .146]	.988
Aprašomosios klasės viktimizacijos normos (*x'*)	**-.116**	**[-.199; -.034]**	**.006**
Klasės viktimziacijos normų neatitikimas (*i*)	**-.154**	**[-.309; -.001]**	**.051**
Priklausomas kintamasis: 2 Matavimo Vienišumas			
Kontrasto modelis			
Vienišumas	**.505**	**[.441; .569]**	**.000**
Individuali viktimizacija (*x*)	**.095**	**[.022; .168]**	**.010**
Aprašomosios klasės viktimizacijos normos (*x'*)	**-.033**	**[-.058; -.008]**	**.010**
Priklausomas kintamasis: 2 Matavimo Emociniai simpomai			
Tuščias modelis			
Emociniai sunkumai	**.654**	**[.610; .698]**	**.000**

Pastaba: N=706. Visi modeliai įtraukia autoregresinį taką ir šalį kaip kovariantę. *Pilno kontrasto* modelyje takai *a* ir *b* (*x* ir *x'*) bei *c* ir *d* (*i* ir *i'*) yra nustatyti kaip lygiaverčiai, bet priešingi vienas kitam. *Kontrasto* modelyje takai *a* ir *b* (*x* ir *x'*) yra nustatyti kaip lygiaverčiai, bet priešingi vienas kitam.

Reikšmingi rezultatai, kai p<.05, paryškinti.

Vienišumas.

Vertinant savistabos klausimynais matuotos santykių viktimizacijos sąsajas su vienišumu, geriausiai duomenis atitiko *pilnas* modelis ($\chi 2(1)=0.065$, p=.799; R*MSEA*=.000[.000;.063]; *CFI*=1). 5 lentelėje pateikiami *pilno* G-APIM modelio su 4 nepriklausomais kintamaisiais rezultatai. Pirmo matavimo savistabos klausimynais vertinta santykių viktimizacija teigiamai, o klasės aprašomosios viktimizacijos normos neigiamai prognozavo antro matavimo vienišumą. Pirmo matavimo klasės viktimizacijos homogeniškumas (kaip panašūs kiti klasės mokiniai buvo tarpusavyje pagal patiriamą viktimizaciją) neigiamai prognozavo vienišumo padidėjimą. Viktimizuojami mokiniai klasėse, kuriose buvo žemesnės klasės viktimizacijos normos ir didesnis kitų bendraklasių nepanašumas vienų į kitus viktimizacijos atžvilgiu, pasižymėjo augančiu vienišumu metų eigoje.

Emociniai simptomai.

Vertinant savistabos klausimynais matuotos santykių viktimizacijos sąsajas su emociniais simptomais, geriausiai duomenis atitiko *pagrindinių efektų* modelis ($\chi 2(3)=3.206$, p=.361; R*MSEA*=.001[.000;.065]; *CFI*=1). Juo tikrinama prielaida, kad individuali viktimizacija ir klasės aprašomosios viktimizacijos normos prognozuoja elgesio problemas. 5 lentelėje pateikiami *pagrindinių efektų* G-APIM modelio su 2 nepriklausomais kintamaisiais rezultatai. Pirmo matavimo individuali viktimizacija prognozavo antro matavimo emocinius simptomus. Kuo daugiau viktimizacijos mokiniai patyrė pirmo matavimo metu, tuo labiau padidėjo jų emociniai simptomai antro matavimo metu. Klasės aprašomosios viktimizacijos normos reikšmingai neprognozavo emocinių simptomų.

4.3. Papildoma daugiagrupė analizė

Galiausiai, siekiant patikrinti galimus skirtumus tarp berniukų ir mergaičių, pradinės ir pagrindinės mokyklos mokinių bei mokinių iš Lietuvos ir JAV, buvo atlikta daugiagrupė analizė. Buvo lyginamas visiškai apribotas modelis (kai visi abiejų grupių regresijos takai buvo vienodi) su modeliais, kai buvo atlaisvintas vienas regresijos takas. Kadangi skirtingi modeliai turėjo skirtingą kiekį regresijos takų, atitinkamai buvo taikytos skirtingos Bonferroni korekcijos, remiantis takų skaičiumi.

Po Bonferroni korekcijos berniukų ir mergaičių rezultatai neparodė reikšmingų skirtumų. Tarp pradinės ir pagrindinės mokyklos mokinių reikšmingi skirtumai taip pat neatsiskleidė.

Buvo pastebėti du skirtumai tarp Lietuvos ir JAV imčių (imtys apėmė tik pradinių klasių mokinius iš JAV ir Lietuvos). *Asmens tapatumo* modelis, vertinantis bendraamžių nominuotos fizinės viktimizacijos sąsajas su fizine agresija, reikšmingai skyrėsi ($\Delta\chi^2$ (4) = 9.777; p = .044). Bendraamžių nominuota individuali fizinė viktimizacija skirtingai prognozavo Lietuvos ir JAV pradinių klasių mokinių fizinę agresiją ($\Delta\chi^2$ (1) = 5.754; p = .016). Individuali patiriama viktimizacija reikšmingai prognozavo JAV mokinių fizinės agresijos pokyčius (β = -.151; p = .041), tačiau ne Lietuvos mokinių

(β = .057; p = .431). Vis dėlto, kadangi šis takas pagrindiniame šio tyrimo modelyje nebuvo reikšmingas, šis pastebėtas skirtumas tik papildo rezultatus, tačiau jų nepakeičia. Taip pat buvo pastebėtas reikšmingas skirtumas tarp Lietuvos ir JAV mokinių, vertinant savistabos klausimynais matuotos fizinės viktimizacijos sąsajas su vienišumu ($\Delta\chi^2$ (1) = 6.494; p = .011). Savistabos klausimynais matuota fizinė viktimizacija reikšmingai prognozavo JAV mokinių vienišumo pokyčius (β = .227; p = .000), tačiau neprognozavo Lietuvos mokinių vienišumo pokyčių (β = -.047; p = .431).

5 lentelė. *G-APIM rezultatai iš geriausiai tinkančių modelių: savistabos klausimynais matuota santykių viktimizacija prognozuoja elgesio problemas, delinkventinį elgesį, vienišumą ir emocinius simptomus.*

1 Matavimo Nepriklausomas Kintamasis	β	*95% PI*	*p*
Priklausomas kintamasis: 2 Matavimo Elgesio problemos			
Pagrindinių efektų modelis			
Elgesio problemos	**.513**	**[.448; .578]**	**.000**
Individuali viktimizacija (*x*)	**.133**	**[.061; .205]**	**.000**
Aprašomosios klasės viktimizacijos normos (*x'*)	.029	[-.033; .092]	.359
Priklausomas kintamasis: 2 Matavimo Delinkventinis elgesys			
Panašumo kontrasto modelis			
Delinkventinis elgesys	**.361**	**[.290; .431]**	**.000**
Individuali viktimizacija (*x*)	.075	[-.035; .185]	.180
Aprašomosios klasės viktimizacijos normos (*x'*)	-.008	[-.035; .071]	.847
Klasės viktimziacijos normų neatitikimas (*i*)	**-.163**	**[-.276; -.051]**	**.005**
Klasės viktimizacijos homogeniškumas (*i'*)	**.092**	**[.029; .156]**	**.005**
Priklausomas kintamasis: 2 Matavimo Vienišumas			
Pilnas modelis			
Vienišumas	**.450**	**[.373; .527]**	**.000**
Individuali viktimizacija (*x*)	**.142**	**[.003; .253]**	**.013**
Aprašomosios klasės viktimizacijos normos (*x'*)	**-.164**	**[-.285; -.044]**	**.007**
Klasės viktimziacijos normų neatitikimas (*i*)	-.007	[-.116; .102]	.904
Klasės viktimizacijos homogeniškumas (*i'*)	**-.156**	**[-.279; -.032]**	**.014**
Priklausomas kintamasis: 2 Matavimo Emociniai simptomai			
Pagrindinių efektų modelis			
Emociniai simptomai	**.615**	**[.562; .668]**	**.000**
Individuali viktimizacija (*x*)	**.089**	**[.025; .153]**	**.007**
Aprašomosios klasės viktimizacijos normos (*x'*)	.026	[-.033; .085]	.385

Pastaba: N=706. Visi modeliai apima autoregresinę trajektoriją (T1 rezultato) ir vietovę (šalį) kaip kovariantę. *Panašumo kontrasto* modelyje takai *c* ir *d* (*i* ir *i'*) yra nustatyti kaip lygūs, bet priešingi vienas kitam. *Kontrasto* modelyje takai *a* ir *b* (*x* ir *x'*) yra nustatyti kaip lygūs, bet priešingi vienas kitam.

Reikšmingi rezultatai, kai p<.05, paryškinti.

5. REZULTATŲ APTARIMAS

Šis longitudinis tyrimas buvo atliekamas vienerius mokslo metus. Jo metu du kartus buvo apklausti 706 jauni paaugliai iš 39 klasių, kilę iš Lietuvos ir Jungtinių Amerikos Valstijų. Tyrime buvo naudojami tiek savistabos klausimynai, tiek bendraamžių nominacijos, siekiant įvertinti mokinių fizinę ir santykių viktimizaciją, aprašomąsias klasės viktimizacijos normas, klasės viktimizacijos normų neatitikimą ir klasės viktimizacijos homogeniškumą. Vėliau buvo įvertintos šių veiksnių sąsajos su eksternaliais sunkumais (bendraamžių nominuotas trikdantis elgesys ir fizinė agresija, bei savistabos klausimynais matuotos elgesio problemos ir delinkventinis elgesys) ir internaliais sunkumais (savistabos klausimynais vertintas vienišumas ir emociniai simptomai). Analizei buvo taikytas Grupės-Aktoriaus Partnerio abipusės priklausomybės modelis (G-APIM), suteikęs galimybę tyrinėti individualią viktimizaciją (kiek asmuo yra viktimizuotas), klasės viktimizacijos normas (vidutinis viktimizacijos lygis klasėje), mokinių šių normų neatitikimą (kiek asmuo skiriasi nuo vidutinių klasės viktimizacijos normų) ir klasės viktimizacijos homogeniškumą (kiek panašūs klasės draugai yra vieni į kitus viktimizacijos atžvilgiu).

Šis tyrimas – pirmasis longitudinis tyrimas, analizuojantis ryšį tarp klasės viktimizacijos normų neatitikimo (sveiko konteksto paradoksas) ir eksternalių sunkumų klasės aplinkoje. Tyrimo rezultatai iš dalies patvirtino iškeltą hipotezę: klasės aprašomųjų viktimizacijos normų neatitikimas buvo susijęs su socioemocinių problemų padidėjimu per metus. Remiantis grupės-asmens nepanašumo modeliu (Wright ir kt., 1984) bei „socialiai nepritapusių» konceptu, longitudiniai tyrimo duomenys atskleidė, kad reikšmingas klasės viktimizacijos normų neatitikimas prognozuoja tiek eksternalių (trikdantis elgesys, fizinė agresija, elgesio problemos, delinkventinis elgesys), tiek internalių sunkumų (vienišumas, bet ne emociniai simptomai) padidėjimą per semestrą. Šie rezultatai rodo galimą atstūmimo ir socialinės įtampos jausmą bei kaltės eksternalizaciją tarp mokinių, susiduriančių su viktimizacija aplinkoje, kurioje viktimizacijos atvejų pasitaiko mažiau. Svarbu pabrėžti, kad reikšmingai skyrėsi fizinės ir santykių viktimizacijos atvejų bei bendraamžių įvertinimų ir savistabos klausimynų duomenų rezultatai.

Fizinės viktimizacijos normų neatitikimas

Longitudiniai tyrimo rezultatai atskleidė, kad tiek bendraamžių įvertinimu, tiek savistabos klausimynais vertintos fizinės viktimizacijos klasės normų neatitkimas buvo susijęs su eksternalių sunkumų augimu. Nustatyta, kad didesnis klasės aprašomųjų viktimizacijos normų neatitikimas prognozuoja bendraamžių įvertinto trikdančio elgesio ir fizinės agresijos augimą bei savistabos klausimynais matuoto delinkventinio elgesio ir elgesio problemų padidėjimą. Svarbu pažymėti, kad, priešingai nei buvo tikėtasi, tyrimo rezultatai neatskleidė statistiškai reikšmingų sąsajų tarp fizinės viktimizacijos klasės normų neatitikimo ir internalių sunkumų padidėjimo. Šis tyrimas papildo sveiko konteksto paradokso tyrimus, patvirtindamas ryšį tarp fizinės klasės viktimizacijos normų neatitikimo ir eksternalių sunkumų. Tačiau rezultatai nepatvirtina

ankstesnių tyrimų rezultatų apie fizinės viktimizacijos normų neatitikimo ir internalių sunkumų sąsajas.

Santykių viktimizacijos normų neatitikimas

Analizuojant santykių viktimizacijos rezultatus, nustatyta mažiau statistiškai reikšmingų sąsajų. Longitudiniai duomenys atskleidė, kad didesnis santykių viktimizacijos klasės normų neatitikimas prognozuoja vienišumo jausmo padidėjimą per metus. Taip pat nustatyta, kad savistabos klausimynais vertintos klasės santykių viktimizacijos normų neatitikimas buvo susijęs su delinkventinio elgesio padidėjimu. Papildoma duomenų analizė išryškino kompleksinę sąveikos struktūrą: longitudiniai duomenys rodo, kad individuali santykių viktimizacija prognozuoja emocinių simptomų augimą tik klasėse, pasižyminčiose žemomis viktimizacijos normomis, o klasėse, kurioms būdingos aukštesnės viktimizacijos normos, šis ryšys neatsiskleidžia.

Rezultatų apžvalga.

Šio tyrimo rezultatai iš dalies patvirtina mūsų pradines hipotezes, kurios sutampa su Casper ir Card (2017) išvadomis, kurių metaanalizė pastebėjo, kad fizinė viktimizacija dažniau yra labiau susijusi su eksternaliais sunkumais, o santykių viktimizacija labiau susijusi su internaliais sunkumais. Mūsų tyrimas atskleidė, kad fizinės viktimizacijos klasės normų (matuotų tiek savistabos klausimynais, tiek bendraamžių įvertinimais) neatitikimas, prognozuoja eksternalių sunkumų augimą per metus. Šios išvados praplečia egzistuojančias teorines žinias apie sveiko konteksto paradoksą. Rezultatai rodo, kad viktimizacijos tipas atlieka kompleksinį vaidmenį, todėl ateities tyrimuose svarbu atsižvelgti į viktimizacijos tipą ir matavimo metodologiją.

Sąsajos tarp klasės viktimizacijos normų neatitikimo ir internalių sunkumų buvo mažiau išreikštos. Priešingai nei tikėtasi, longitudinė analizė atskleidė tik vieną reikšmingą ryšį: tarp nuo bendraamžių įvertintos santykių viktimizacijos klasės normų neatitikimo ir vienišumo augimo. Pažymėtina, kad COVID-19 pandemija galėjo turėti įtakos ribotam rezultatų, susijusių su internaliais sunkumais, išryškėjimui. Pandemijos laikotarpiu buvo pastebimas visuotinis internalių simptomų padidėjimas jaunų paauglių populiacijoje (Bernasco et al., 2021; Hyland et al., 2021). Šiame kontekste savistabos klausimynais matuotų internalių simptomų padidėjimas galėjo būti užmaskuotas pandemijos, dėl šios priežasties viktimizacijos normų neatitikimo sąsajos su internaliais sunkumais galėjo neatsiskleisti. Pandemijos įtaka galėjo nulemti, kad padidėjusius emocinius simptomus ir vienišumą jautė ne tik viktimizaciją patyrę tiriamieji, bet ir didesnė dalis mokinių. Į šį kontekstą svarbu atsižvelgti interpretuojant tyrimo rezultatus.

Šis tyrimas nėra pirmasis, nustatantis sąsajas tarp viktimizacijos ir socioemocinių problemų (Olweus, 2013; Kim ir kt., 2006; Ostrov, 2010). Tai taip pat nėra pirmasis tyrimas, identifikuojantis, kad žemesnės aprašomosios klasės viktimizacijos normos yra susijusios su padidėjusiomis internaliomis ir eksternaliomis problemomis linkusiems viktimizaciją patiriantiems mokiniams. Tyrimas remiasi besiplečiančia „sveiko konteksto paradokso" tyrimų sritimi, kuri kilo iš asmens ir grupės nesutapimų teorijos

(Garandeau & Salmivalli, 2019; Sentse et al., 2007). Šis paradoksas pabrėžia, kad pastangos įveikti patyčias, nors ir naudingos daugumai, gali netyčia pakenkti aukoms, kurios atsiduria kontekstuose, kur patyčios tampa retesnės. Šie viktimizuojami „socialiai nepritapę" paaugliai patiria stipresnį atstūmimą ir rimtesnius adaptacijos sunkumus, lyginant su patyčių aukomis aukštesnio patyčių lygio kontekstuose (Huitsing et al., 2019).

Nors apžvelgti tyrimai atskleidžia pakankamai glaudų ryšį tarp klasės viktimizacijos normų neatitikimo ir internalių sunkumų (Pan ir kt., 2021), mūsų tyrimo rezultatai šio ryšio visiškai nepatvirtino. Literatūra apie sveiko konteksto paradokso ir eksternalių sunkumų sąsajas buvo daug skurdesnė. Identifikuotas tik vienas neseniai Kinijoje atliktas tyrimas, analizuojantis šį reiškinį klasės kontekste. Šis skerspjūvio tyrimas, nagrinėjantis sveiko konteksto paradoksą, nustatė, kad viktimizacija stipriau prognozuoja elgesio problemas klasėse, kurioms būdingos žemesnės viktimizacijos normos, nei klasėse, kuriose viktimizacijos normos yra aukštesnės (Liu et al., 2021). Visgi tyrime taikytas skerspjūvio metodas neleidžia patvirtinti viktimizacijos normų neatitikimo ir elgesio problemų sąsajų laiko perspektyvoje, ką atskleidė šios disertacijos radiniai.

Pagrindinės išvados sveiko konteksto paradokso srityje.

Apibendrinant galima teigti, kad mūsų rezultatai papildo žinias apie sveiko konteksto paradoksą (Garandeau ir Salmivalli, 2019). Nors ne visi prognozuoti ryšiai pasitvirtino kaip statistiškai reikšmingi, išryškėjo keletas svarbių aspektų. Esminė naujovė sveiko konteksto paradokso literatūroje – nustatytas jo ryšys su eksternaliais sunkumais: didesnis klasės fizinės viktimizacijos normų neatitikimas prognozuoja įvairių elgesio problemų spektrą: nuo trikdančio elgesio iki fizinės agresijos. Šis ryšys pasitvirtino tiek savistabos klausimynais matuotos, tiek bendraamžių įvertintos viktimizacijos atvejais, tačiau neatsiskleidė vertinant santykių viktimizacijos normų neatitikimo ir eksternalių sunkumų ryšį.

Santykių viktimizacijos klasės normų neatitikimo analizė atskleidė mažiau statistiškai reikšmingų sąsajų tiek su internaliais, tiek su eksternaliais sunkumais. Vis dėlto nustatyta, kad viktimizacija stipriau prognozuoja vienišumą ir emocinius simptomus klasėse, kurioms būdingos žemesnės viktimizacijos normos, nei klasėse, kuriose viktimizacijos normos yra aukštesnės.

Tai yra pirmasis longitudinis tyrimas, nagrinėjantis sveiko konteksto paradoksą klasėje, prognozuojant eksternalius sunkumus, o išvados buvo pakartotos tiek su kintamaisiais, matuotais savistabos klausimynais, tiek bendraamžių nominacijomis. Be to, tai yra pirmasis tyrimas, kuris atskirai nagrinėjo tiek fizinę, tiek santykių viktimizaciją, ir nors rezultatai nebuvo nuoseklūs, šis tyrimas atveria kelią tolesniam „sveiko konteksto paradokso" tyrinėjimui.

Galimi mechanizmai, lemiantys pastebėtas sąsajas.

Galima pasitelkti kelis teorinius mechanizmus mėginant paaiškinti nustatytų sąsajų priežastingumą. Vienas jų remiasi socialinio palyginimo teorija (Festinger, 1954), teigiančia, kad individai save vertina lygindami savo patirtį su bendraamžių patirtimi.

Klasėse, kuriose patyčių normos yra žemesnės, viktimizuojami mokiniai yra priversti atlikti tik į viršų nukreiptus socialinius palyginimus, suvokdami savo situaciją kaip ypač nepalankią, nes ji ryškiai kontrastuoja su neviktimizuojamų klasės draugų patirtimi. Tai gali sukelti nepilnavertiškumo jausmą, paskatinti didesnius emocinius simptomus ir sustiprinti socialinio nepritapimo pojūtį (Pan et al., 2020).

Socialinės informacijos apdorojimo modelis (Crick ir Dodge, 1996) gali suteikti gilesnį supratimą apie pastebėtus padidėjusius eksternalius sunkumus tarp fiziškai viktimizuojamų mokinių. Viktimizacijos aukos dažnai yra išmokusios pastebėti grėsmę, todėl gali klaidingai interpretuoti dviprasmiškus socialinius signalus kaip priešiškus, o tai gali sukelti agresyvias jų reakcijas. Šis priešiškas šališkumas galėtų paaiškinti, kodėl fiziškai viktimizuojami mokiniai klasėse su žemomis viktimizacijos normomis yra labiau linkę į netinkamą elgesį. Nuolatinio pavojaus jausmas gali skatinti gynybiškas ir agresyvias reakcijas kaip savisaugos mechanizmą (van Reemst et al., 2016). Toks agresyvus elgesys gali dar labiau didinti atotrūkį nuo bendraamžių, taip palaikydamas viktimizacijos ir atstūmimo ciklą.

Bendros įtampos teorija (angl. General strain theory) (Agnew, 2006) suteikia teorinį pagrindą emociniams ir elgesio viktimizacijos padariniams suprasti. Emocinė įtampa, kurią sukelia patyčios, ypač kai jos suvokiamos kaip neteisingos ar nepagrįstos, gali lemti nusivylimą ir pyktį. Klasėse su žemomis viktimizacijos normomis ši įtampa gali būti intensyvesnė, nes aukos jaučiasi labiau izoliuotos ir neteisingai vertinamos, kadangi mato bendraamžius, kurie patyčių nepatiria. Bendrų patirčių su bendraamžiais stoka gali sustiprinti emocinę naštą, skatindama kai kuriuos mokinius eksternalizuoti patiriamą emocinę įtampą per trikdantį elgesį arba tą įtampą internalizuoti, kas pasireiškia emociniais simptomais, tokiais kaip depresija ar nerimas (Hay & Meldrum, 2010).

Rekomendacijos praktikams ir ateities tyrimams bei tyrimo ribotumai.

Šio tyrimo išvados gali suteikti įžvalgų mokytojams ir praktikams. Pirma, trikdantis ir netinkamas elgesys gali būti viktimizacijos simptomai, todėl į juos svarbu atkreipti daugiau dėmesio. Antra, draugai gali apsaugoti vaikus nuo patiriamos viktimizacijos. Naujų draugysčių užmezgimas gali būti toks paprastas kaip sėdimų vietų perorganizavimas (Faur ir Laursen, 2022), todėl tai turėtų būti apsvarstyta su vaikais, neturinčiais draugų. Trečia, ne visiems vaikams vienodai naudingos į viktimizacijos mažinimą nukreiptos intervencijos (Huitsing ir kt., 2019). Tai rodo, kad gali būti reikalingos papildomos intervencijos, apimančios reguliarius klasės aplinkos ir likusių aukų gerovės vertinimus. Ketvirta, asmeninės savybės, susijusios tiek su viktimizaciją patiriančiais, tiek vykdančiais mokiniais, ne visada turi akivaizdžią kilmę. Pavyzdžiui, prievartinis ir žeminantis tėvų auklėjimas skatina jaunimo pykčio valdymo problemas, kurios gali išprovokuoti viktimizuojantį elgesį (Dickson ir kt., 2019). Praktikai turi būti jautrūs netinkamam elgesiui, kylančiam tiek mokyklose, tiek už mokyklos ribų.

Šis tyrimas turi ir tam tikrų ribotumų. Pirma, mūsų imtis apėmė mokinius iš 39 klasių, kas yra priimtinas, bet mažas skaičius G-APIM analizėms (Marsh ir kt., 2012). Nepakankamai galingos analizės apsunkina mažų efektų aptikimą, todėl reikia

atsargiai interpretuoti nereikšmingus rezultatus. Be to, aptikti efekto dydžiai buvo maži, tačiau ilgainiui net ir tokie dydžiai gali turėti reikšmingų pasekmių. Antra, JAV imties vidurinėse mokyklose kiekvieną pamoką keitėsi klasės mokinių sudėtis, todėl šios amžiaus grupės aprašomosios klasės viktimizacijos normos šioje vietovėje negalėjo būti įvertintos. Dėl to, nors išvados apie jaunesnius mokinius gali būti apibendrintos kultūriškai, vyresniųjų mokinių atveju jos buvo apribotos Lietuvos imtimi. Trečia, tai, kad tiek nepriklausomi, tiek priklausomi kintamieji kilo iš to paties mokinio, gali potencialiai iškraipyti savistabos klausimynais matuotus rezultatus, tačiau šis trūkumas iš dalies sumažėja, kadangi tyrime naudotos ir bendraamžių nominacijos. Ketvirta, dalyvavimas tyrime priklausė nuo tėvų sutikimo, todėl yra galimybė, kad viktimizuojamų ar elgesio problemų turinčių vaikų tėvai galėjo būti mažiau linkę suteikti leidimą. Jei taip, mes galėjome nepakankamai įvertinti viktimizacijos pasekmes socialiai nepritampantiems vaikams. Galiausiai, mūsų analizėse nepavyko atsižvelgti į savybes ir tarpasmeninių patirčių pokyčius, vykstančius semestro metu. Vaikai, greitai įgyjantys ir prarandantys draugus, patiria didesnę viktimizacijos riziką (Bowker et al., 2010).

Ankstesni tyrimai nustatė skirtumus tarp statusu pagrįstų populiarumo normų ir aprašomųjų klasės normų bei skirtingas jų sąsajas su viktimizacija (Laninga-Wijnen ir kt., 2021). Ateities tyrimai galėtų nagrinėti sveiko konteksto paradoksą per populiarumo normų prizmę (kiek populiarūs yra skriaudėjai), pripažįstant, kad populiarūs vaikai patys gali būti viktimizuojami (Hartl et al., 2020). Ateities tyrimai galėtų naudotis populiarumo normomis ir aprašomosiomis normomis G-APIM modelyje, siekiant išmatuoti sveiko konteksto paradokso sąsajas su viktimizuojamų paauglių pasekmėmis. Be to, būsimi tyrimai galėtų apimti neviktimizuojamų vaikų bejėgiškumo jausmo analizę klasėse, kurioms būdingos žemos viktimizacijos normos (ypač populiarumo normos). Be to, ateityje galėtų būti ištirta, kokios individualios savybės gali lemti, kaip mokiniai reaguoja į viktimizaciją klasėse su žemomis viktimizacijos normomis – pasyviai ar agresyviai. Vis dar neaišku, ar asmenys agresija reaguoja į fizinę agresiją (Casper & Card, 2017), ar emocinė kontrolė turi tam įtakos (Kaynak et al., 2015), ar abu aspektai yra svarbūs.

5.1. Išvados

Apibendrinant galima teigti, kad tyrimas atskleidė sudėtingus ryšius tarp fizinės bei santykių viktimizacijos, klasės viktimizacijos normų ir mokinių internalinių bei eksternalinių sunkumų. Nors ne visos hipotezės buvo patvirtintos, rezultatai iš dalies pagrindžia sveiko konteksto paradoksą, rodantį, kad klasės viktimizacijos normų neatitikimas (viktimizacijos patyrimas klasėse, kuriose yra žemos viktimizacijos normos) siejasi su įvairiomis elgesio ir emocinėmis problemomis. Stipriausiai tyrime atsiskleidė ilgalaikis ryšys tarp fizinės viktimizacijos klasės normų neatitikimo ir eksternalių sunkumų padidėjimo. Pagrindinės išvados:

1. Bendraamžių nominuotos fizinės viktimizacijos aprašomųjų klasės normų neatitikimas yra susijęs su eksternalių sunkumų (trikdančio elgesio ir fizinės agresijos) padidėjimu per metus.

2. Bendraamžių nominuotos fizinės viktimizacijos aprašomųjų klasės normų neatitikimas nėra reikšmingai susijęs su internalių sunkumų (emocinių problemų ir vienišumo) padidėjimu per metus.
3. Bendraamžių nominuotos santykių viktimizacijos aprašomųjų klasės normų neatitikimas nėra reikšmingai susijęs su eksternalių sunkumų (trikdančio elgesio ir fizinės agresijos) padidėjimu per metus.
4. Bendraamžių nominuotos santykių viktimizacijos aprašomųjų klasės normų neatitikimas yra susijęs su vienišumo padidėjimu per metus. Tačiau nėra reikšmingai susijęs su emocinių simptomų padidėjimu.
5. Savistabos klausimynais matuotos fizinės viktimizacijos aprašomųjų klasės normų neatitikimas yra susijęs su eksternalių sunkumų (trikdančio elgesio ir fizinės agresijos) padidėjimu per metus.
6. Savistabos klausimynais matuotos fizinės viktimizacijos aprašomųjų klasės normų neatitikimas nėra reikšmingai susijęs su internalių sunkumų padidėjimu per metus.
7. Savistabos klausimynais matuotos santykių viktimizacijos aprašomųjų klasės normų neatitikimas yra susijęs su delinkventinio elgesio padidėjimu per metus. Tačiau nėra reikšmingai susijęs su elgesio problemų padidėjimu.
8. Savistabos klausimynais matuotos santykių viktimizacijos aprašomųjų klasės normų neatitikimas nėra reikšmingai susijęs su internalių sunkumų (vienišumo ir emocinių simptomų) padidėjimu per metus.

Išvados papildo gausėjančius įrodymus, rodančius, kad socialiai nepritampantys paaugliai susiduria su didesne netinkamos adaptacijos rizika, ypač kai asmuo nepritampa viktimizacijos atžvilgiu. Sveikesnės klasės gali būti sveikesnės ne visiems. Vaikai, kurie lieka viktimizuojami klasėse su žemesnėmis viktimizacijos normomis, atsiduria blogesnėje padėtyje nei tie, kurie yra klasėse, kurioms būdingos aukštesnės viktimizacijos normos. Iš tiesų grupės klesti, kai jos susitelkia aplink bendrą priešininką arba auką. Šios išvados yra svarbus priminimas apie aukos kaltinimo pavojų. Mokiniai gali netinkamai elgtis ne dėl polinkio į netinkamą elgesį ar savitvardos trūkumo, o dėl to, kad patys yra netinkamo elgesio aukos.

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GYVENIMO APRAŠYMAS

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2012–2016	Psichologijos bakalauro laipsnis (Lietuvos edukologijos universitetas)

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Nuo 2014	Vadovas UAB Katulis ir KO
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Nuo 2018	Nepriklausomas patirtinio ugdymo treneris
2019-2023	Jaunesnysis mokslo darbuotojas Mykolo Romerio universitete
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Katulis, Gintautas

VICTIMIZED SOCIAL MISFITS: HOW DISCREPANCY FROM CLASSROOM VICTIMIZATION NORMS IS ASSOCIATED WITH EMOTIONAL AND BEHAVIORAL MALADJUSTMENT AMONGST EARLY ADOLESCENTS OVER TIME: daktaro disertacija. – Vilnius: Mykolo Romerio universitetas, 2025. P. 274.

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This dissertation examines the relationship between an early adolescent's discrepancy from classroom victimization norms and the development of internalized and externalized problems later in the year. The research is based on the concept of the "healthy context paradox," which suggests that bullying in classrooms with lower victimization norms has a stronger association with the well-being of students than in classrooms with higher victimization norms. Participants were 706 public primary and middle school students (ages 9 to 14 years) in the USA (80 girls, 85 boys) and Lithuania (259 girls, 282 boys). Peer nominations and self-reports of physical and relational victimization, along with measures of externalizing (conduct problems, delinquent behavior, physical aggression, and disruptiveness) and internalizing problems (emotional symptoms and loneliness), were collected twice during an academic year. Longitudinal Group Actor Partner Interdependence Model (G-APIM) analyses indicated that students who deviate more from physical victimization classroom norms experience greater increases in externalizing problems. Meanwhile, discrepancy from relational victimization classroom norms was associated with increased loneliness later in the year. The findings extend research on the "healthy context paradox" and have practical implications for bullying prevention programs, which should pay special attention to students who remain victims of bullying even in safe school environments.

Šioje disertacijoje tiriamas jaunų paauglių klasės viktimizacijos normų neatitikimo ir internalių bei eksternalių sunkumų padidėjimo per mokslo metus ryšys. Tyrimas remiasi „sveiko konteksto paradokso» konceptu: teigiama, kad patyčios klasėse, kuriose nustatytas žemesnis viktimizacijos lygis, glaudžiau susijusios su moksleivių gerove nei klasėse, kuriose šis lygis aukštesnis. Tyrime dalyvavo 706 pradinės ir pagrindinės mokyklos mokiniai (9-14 metų amžiaus) iš JAV (80 mergaičių, 85 berniukai) ir Lietuvos (259 mergaitės, 282 berniukai). Du kartus per mokslo metus buvo surinktos bendraamžių nominacijos ir mokinių savęs įvertinimai apie fizinę ir santykių viktimizaciją bei eksternalius (elgesio problemas, delinkventinį elgesį, fizinę agresiją, trikdantį elgesį) ir internalius sunkumus (emocinius simptomus ir vienatvę). Longitudinė Grupės aktoriaus partnerio abipusės priklausomybės modelio (G-APIM) analizė parodė, kad mokiniai, labiau neatitinkantys klasės fizinės viktimizacijos normų, patiria daugiau eksternalių sunkumų per metus. Tuo tarpu klasės normų neatitikimas santykių viktimizacijos srityje yra susijęs su padidėjusiu vienatvės jausmu. Šio tyrimo rezultatai praplečia žinias apie „sveiko konteksto paradoksą» ir suteikia praktinių įžvalgų patyčių prevencijos programoms, kurios turėtų skirti ypatingą dėmesį mokiniams, išliekantiems patyčių aukomis net ir saugioje mokyklos aplinkoje.

Gintautas Katulis

VICTIMIZED SOCIAL MISFITS: HOW DISCREPANCY FROM CLASSROOM VICTIMIZATION NORMS IS ASSOCIATED WITH EMOTIONAL AND BEHAVIORAL MALADJUSTMENT AMONGST EARLY ADOLESCENTS OVER TIME

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