

BEING BULLIED AND BECOMING DEPRESSED: AN EMPIRICAL STUDY OF SPECIAL EDUCATION SCHOOL CHILDREN

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ABSTRACT

Depression remains a pervasive mental health disorder globally, with a particularly concerning prevalence across South Asia. Among the numerous psychosocial determinants of depression, bullying has emerged as a significant and distressing contributor, especially for vulnerable populations such as students in special education settings. Despite the severity of this issue, empirical research addressing the intersection of bullying victimization and depressive symptoms among special education students in the Sri Lankan context remains limited, highlighting a critical research gap, which was the interest of this study. This study adopted a positivist, deductive, and quantitative research design, incorporating both descriptive and inferential statistical analyses. The target population consisted of 551 special education students, from whom a stratified random sample of 241 participants was selected. Data were collected via a structured, validated questionnaire, and only 234 responses were analyzed using SPSS (version 21). Pearson correlation analysis, multiple regression analysis, and independent sample T-test were employed to test the hypotheses, and the findings confirmed that relational bullying victimization, physical bullying victimization, and culture-based bullying victimization had a significant impact on depressive symptoms, whereas cyberbullying victimization was found to be an insignificant factor. Further, bullying victimization was not gender-specific in this sample and depressive symptoms were similar among both male and female children in special education setting. This study contributes substantively to the existing body of knowledge by validating the associations within a previously under-explored sociocultural context. Furthermore, the research offers critical insights for educators, policymakers, and mental health professionals by underscoring the necessity for context-specific interventions aimed at mitigating the psychological impact of bullying on special education students.

Keywords: *Relational Bullying Victimization, Physical Bullying Victimization, Culture-based Bullying Victimization, Depressive Symptoms, Gender*

1. Introduction

Depression is a globally pervasive mental health disorder, recognized as one of the leading contributors to disability and the overall disease burden worldwide (Guo et al., 2022). It affects over 280 million individuals and is characterized by persistent sadness, anhedonia, cognitive and emotional disturbances, and disruptions in sleep and appetite. These symptoms significantly impair daily functioning and quality of life. Depression is often chronic or recurrent, with far-reaching consequences for social, occupational, and academic performance (WHO, 2023).

In the Sri Lankan context, depression is increasingly recognized as a public health crisis. Recent estimates indicate that 39% of individuals aged 10 to 24 suffer from depression, while the overall national prevalence stands at 19.4%, which is considerably higher than the average of 16.1% in other Asian countries (Alwis et al, 2023; NIH, 2023). A recent meta-analysis conducted between 2003 and 2023, covering 33 peer-reviewed observational studies and over 52,778 participants, highlights the severity of the issue, particularly among youth, older adults, and perinatal women. Among subpopulations, the prevalence is 8.7% in adults, 18.4% in older adults, and 16.9% in maternal populations. Alarmingly, nearly four in ten adolescents show depressive symptoms, indicating a deepening mental health crisis among young people (Alwis et al., 2023).

According to the Directorate of Mental Health (2017), Anuradhapura District reports a 17.9% prevalence of common mental disorders, the second-highest in the country after the Western Province, while Polonnaruwa records a rate of 14.4%. The rural nature of the NCP, coupled with limited access to mental health services, exacerbates the vulnerability of children and adolescents, especially those with special educational needs. Hence, at the regional level, the North Central Province (NCP) of Sri Lanka has emerged as a particularly vulnerable area. Children in special education programs are especially susceptible to depression due to a combination of individual, social, and systemic factors. Research has consistently shown that depression impairs school attendance, concentration, and learning outcomes in students with disabilities (Tatsiopoulou et al., 2020). Adolescents with autism spectrum disorder, intellectual disabilities, neurological conditions, or chronic illnesses are more prone to psychological distress, particularly when exposed to stigma, discrimination, and limited social support. Additionally, factors such as forced marriage, orphanhood, poverty, and belonging to marginalized communities further intensify the risk of depression in these groups (WHO, 2023).

Among these contributing factors, bullying has been identified as a critical predictor of depressive symptoms in children and adolescents globally. Several international studies have explored this relationship, including Balluerka et al. (2022) in Spain, who examined the mediating role of self-esteem in the link between bullying victimization, anxiety, and depression; Thompson and Hodgdon (2019) in the United States, who studied the impact of bullying on deaf students in residential schools; and Xie et al. (2020) in China, who investigated the relationship between coping strategies, bullying victimization, and depression in children. Additionally, Rose et al. (2010) conducted a comprehensive review of bullying in special education settings in the United States. While these studies contribute valuable insights, they

are geographically and culturally distant from the Sri Lankan context, and none specifically address rural special education students in South Asia.

This highlights a clear empirical gap in the literature regarding the unique challenges faced by special education students in Sri Lanka, particularly in rural districts such as the North Central Province. Despite a growing body of international research on the mental health effects of bullying, little is known about its impact on depressive symptoms among special needs students in local contexts marked by economic disadvantage, limited mental health infrastructure, and educational resource constraints.

Therefore, this study aims to examine the impact of bullying victimization on the depressive symptoms of students enrolled in special education programs in the North Central Province of Sri Lanka. By addressing this underexplored topic within a high-risk population, the research aims to generate contextually relevant evidence to inform the development of targeted psychological interventions, inclusive educational strategies, and mental health policies. The major objectives of the study were to examine the effects of relational bullying victimization, physical bullying victimization, cyberbullying victimization, and culture-based bullying victimization on special education school children's depressive symptoms. The study further aimed to compare the mean differences in relational, physical, cyber, and culture-based bullying victimization, as well as depressive symptoms, between male and female special education school children. Ultimately, the study contributes to the well-being and academic success of special education students by promoting inclusive environments that are emotionally and socially supportive.

2. Literature Review

Theoretical Framework

This study is grounded primarily in General Strain Theory (GST) proposed by Robert Agnew (1992). This framework offers a robust lens for understanding how bullying victimization contributes to the development of depressive symptoms in students enrolled in special education programs, particularly within the rural and under-resourced context of Sri Lanka's North Central Province.

General Strain Theory posits that individuals who experience negative events or conditions, referred to as "strains", are at increased risk of developing adverse emotional and behavioral outcomes. Strains can take multiple forms: failure to achieve positively valued goals, removal of positively valued stimuli, and presentation of negative stimuli (Agnew, 1992). Within the context of bullying, victimization itself can be viewed as a significant source of strain, as victims are subjected to repeated negative treatment that threatens their sense of safety, belonging, and social identity (Hay & Meldrum, 2010). Empirical research suggests that bullying victimization increases psychological strain, which is strongly associated with maladaptive outcomes, including internalizing problems such as anxiety and depression, as well as externalizing responses such as aggression or delinquency (Moon et al., 2011). Furthermore, GST highlights the role of coping resources and social supports in moderating the relationship between strain and negative outcomes; adolescents with higher levels of parental support, peer support, and self-efficacy are less likely to resort to deviant behaviors in response to victimization (Jennings et al., 2012). Thus, GST explains the potential pathways

linking bullying victimization to problem behaviors and underscores the importance of protective factors that can mitigate its adverse effects.

Depressive Symptoms

Depression constitutes a significant public health challenge profoundly impairing multiple facets of individual and societal well-being (Wirback, 2018; National Institute of Mental Health, 2023). It stands as one of the most prevalent mental illnesses worldwide, contributing to substantial functional impairment, increased healthcare burden, and heightened risk of comorbidities including cardiovascular disease and diabetes (World Health Organization, 2025; McLaughlin, 2011). Furthermore, depression is recognized as an escalating threat to global public health, affecting diverse populations across all ages, and demanding urgent interdisciplinary prevention and intervention efforts (Vandeventer et al., 2024; McGorry, 2025). Drawing on Lewinsohn's behavioral theory, depression emerges primarily from a deficiency or absence of response-contingent positive reinforcement, wherein insufficient rewarding experiences provoke a reduction in adaptive behaviors and heightened dysphoria—the hallmark symptoms of depressive disorders (Wirback, 2018). This loss of reinforcement can arise under three conditions: the environment fails to provide adequate positive stimuli; the individual lacks the requisite social skills to obtain reinforcement despite its availability; or the individual is unable to derive enjoyment when reinforcement is received (McLaughlin, 2011). Such antecedents precipitate maladaptive behavior patterns that either diminish exposure to positive reinforcement or increase exposure to negative reinforcement, thereby perpetuating depressive symptomatology and associated functional decline (NIMH, 2023; WHO, 2025).

Bullying Victimization

Bullying victimization is defined as the experience of being targeted, harassed, or intimidated by peers through repeated acts of aggression, coercion, or social isolation. It entails a power imbalance between the victim and the perpetrator(s), with the victim feeling powerless to defend oneself successfully (Olweus, 1996). Bullying victimization can be effectively explained through Albert Bandura's Social Cognitive Theory (SCT), which emphasizes reciprocal interactions between behavior, personal factors, and the environment. Observational learning plays a critical role, as children often imitate aggressive behaviors that they see rewarded among peers or in media, which sustains bullying cycles (Bussey, 2022). Moral disengagement, another SCT construct, enables perpetrators to justify harmful acts through mechanisms such as victim-blaming or minimizing harm, and studies consistently find strong associations between moral disengagement and bullying or cyberbullying (Zhao et al., 2024). Victims, meanwhile, often experience diminished self-efficacy, which reduces their capacity to cope or seek help; meta-analyses show a significant negative relationship between bullying victimization and self-efficacy (Liu et al., 2023). Beyond individual impacts, the consequences of victimization include heightened risks of depression, anxiety, and self-harm, extending into adulthood (Moore et al., 2017). Interventions grounded in SCT, particularly those that build self-efficacy and reduce moral disengagement, have shown effectiveness in lowering bullying rates across schools (Gaffney et al., 2021).

Relational Bullying Victimization

Victimization in relational bullying occurs when individuals are harmed as a result of social manipulation, exclusion, rumors, or other forms of relational aggression. Unlike classic kinds of bullying, which involve physical hostility, relational bullying mainly focuses on social relationships and psychological well-being (Crick & Grotpeter, 1995). Relational bullying refers to indirect nonphysical aggression, such as social exclusion, social rejection, and rumor spreading (Gross et al., 2010). Relational bullying victimization refers to harm caused through the deliberate manipulation of social relationships, such as spreading rumors, exclusion from peer groups, or damaging reputations, rather than direct physical aggression. It is often more covert than physical bullying and can be harder for teachers and parents to detect (Archer & Coyne, 2005). Research has shown that relational bullying is particularly prevalent among adolescents, as peer acceptance and social status become highly valued during this developmental stage (Wang et al., 2009). Victims of relational bullying frequently report higher levels of loneliness, social anxiety, and depression compared to victims of overt bullying (Storch & Ledley, 2005). From the perspective of Bandura's Social Cognitive Theory, relational bullying is reinforced through social rewards, such as increased popularity or peer approval, and victims' lowered self-efficacy may limit their ability to resist exclusion or defend their social standing (Bussey, 2022). Long-term effects are correspondingly concerning, as relational victimization has been linked with difficulties in trust, relationship building, and heightened risk of mental health challenges in adulthood (Casper & Card, 2017). Thus, understanding relational bullying victimization requires attention to the subtle, socially embedded forms of aggression and the cognitive processes that sustain them.

Physical Bullying Victimization

Physical bullying victimization involves direct bodily harm or the threat of harm, including behaviors such as hitting, kicking, pushing, or damaging a victim's belongings. It is the most visible and traditionally recognized form of bullying, often detected earlier than relational or cyber forms due to its overt nature (Olweus, 1993). Studies show that boys are more likely to be both perpetrators and victims of physical bullying compared to girls, reflecting gendered socialization patterns around aggression (Wang et al., 2009). Victims of physical bullying frequently report heightened risks of injury, psychosomatic complaints, anxiety, and poor school adjustment (Nansel et al., 2001). From a theoretical perspective, Social Cognitive Theory suggests that physical aggression may be learned through observational modeling and maintained by reinforcement when aggressors gain social dominance or avoid sanctions (Bussey, 2022). Similarly, General Strain Theory views physical victimization as a form of negative treatment that generates emotional strain, which may increase vulnerability to both internalizing problems and retaliatory aggression (Hay & Meldrum, 2010). Longitudinal evidence further indicates that persistent physical victimization is associated with long-term negative outcomes, including low self-esteem, academic disengagement, and increased risk of delinquency or violence in later adolescence (Ttofi et al., 2011). Understanding the processes and consequences of physical bullying victims is critical for designing effective prevention and intervention plans (Swearer et al., 2014). Consequently, understanding physical bullying victimization requires examining its immediate physical

harms and its broader psychosocial consequences and the theoretical mechanisms that sustain it.

Cyberbullying Victimization

Cyberbullying victimization is the experience of being targeted, harassed, or hurt by others using electronic communication channels such as social media, messaging apps, email, or online forums. With the growth of modern technologies, cyberbullying has become a common problem, particularly among teenagers. Understanding the nature, prevalence, consequences, and actions associated with cyberbullying victimization is critical for effectively addressing this type of aggression (Hinduja & Patchin, 2017). A new form of bullying has emerged with modern communication technologies, that is, cyberbullying, in which electronic tools are used to taunt, insult, threaten, harass, and/or intimidate a peer (Yang & Salmivalli, 2013).

Cyberbullying victimization refers to the use of digital technologies such as social media, messaging apps, and online platforms to harass, threaten, or humiliate individuals. Unlike traditional forms of bullying, cyberbullying is characterized by its anonymity, the potential for a wide audience, and its persistence beyond school settings, which can make it particularly distressing for victims (Kowalski et al., 2014). Studies show that cyberbullying often co-occurs with traditional bullying, with many victims experiencing multiple forms of victimization simultaneously (Wang et al., 2009). Victims of cyberbullying report higher rates of depression, anxiety, loneliness, and suicidal ideation compared to those exposed only to offline bullying (Kowalski et al., 2019). From the lens of Social Cognitive Theory, cyberbullying behaviors may be reinforced by the perceived rewards of online attention or peer approval, while the lack of immediate sanctions encourages moral disengagement, allowing perpetrators to minimize the perceived harm of their actions (Bussey, 2022). General Strain Theory provides insights, as cyberbullying represents a significant strain that can generate strong negative emotions, particularly given the inescapable nature of online victimization (Hay & Meldrum, 2010). Longitudinal research suggests that cyberbullying victimization has lasting effects on academic performance, psychological adjustment, and overall well-being, underscoring the importance of interventions that combine digital literacy, empathy-building, and coping skills (Selkie et al., 2016). Thus, cyberbullying victimization represents a complex and evolving challenge in the digital age, with unique mechanisms and consequences that complement traditional understandings of bullying.

Culture-based Bullying Victimization

Culture-based bullying victimization refers to harassment, exclusion, or aggression targeted at individuals because of their cultural, ethnic, racial, or religious background. This form of bullying often includes derogatory name-calling, stereotyping, social exclusion, or discriminatory treatment that undermines a victim's cultural identity (Sue et al., 2007). Studies highlight that minority students are disproportionately affected by culture-based bullying, with research in diverse school contexts indicating strong links between ethnic discrimination and negative psychosocial outcomes such as anxiety, depression, academic disengagement, and lowered self-esteem (Peguero, 2012). In multicultural school settings, culture-based victimization has been shown to contribute to feelings of alienation and weakened peer

relationships, thereby exacerbating social and educational inequalities (Priest et al., 2014). From the perspective of Social Cognitive Theory, such bullying behaviors may be learned through modeling of discriminatory attitudes at home, in peer groups, or via media, and they may be maintained by group reinforcement when prejudice enhances social cohesion among perpetrators (Bussey, 2022). General Strain Theory provides insight, as culture-based victimization represents a chronic source of strain that produces strong negative emotions and maladaptive coping responses, particularly for marginalized youth who may lack adequate social support (Agnew, 1992; Moon et al., 2011). Importantly, culture-based bullying has long-term consequences, with evidence suggesting that repeated exposure to ethnic victimization increases risks of identity conflict, diminished cultural pride, and long-term psychological distress (Tippett et al., 2013). Given these outcomes, addressing culture-based bullying requires school-level interventions and broader societal efforts to challenge prejudice and promote inclusivity.

Empirical Findings

Mathieson et al. (2014) conducted a study with a total of 499 teenagers from sixth to eighth grade. Teacher reports were utilized to evaluate relationship victimization and hostility. Self-reports were utilized to measure depression symptoms and rumination. The findings revealed that rumination partially mediated the link between relational victimization and depressed symptoms. No moderating effect was discovered. In contrast, rumination mitigated the link between relational aggressiveness and depressed symptoms. Relational violence was specifically linked to depressive symptoms in teenagers who ruminated. Thus, ruminating over victimization experiences appears to be an essential mechanism in conferring risk for depressive symptoms that differ between relational violence and relational victimization. The findings have crucial practical implications for those working with teenagers while laying the framework for future research.

Van Hoof et al. (2008) developed and tested a multi-mediation conceptual framework to explore the interrelationships among bullying behavior, peer victimization, personal identity, and family characteristics in relation to depressive symptoms among 194 high school students. The first model investigated whether peer victimization mediated the association between bullying behavior and depressive symptoms, while the second model examined the mediating role of personal identity in the link between peer victimization and depressive symptoms. Findings revealed that peer victimization exerts enduring effects on individuals' psychological well-being, particularly when disruptions to personal identity are present, thereby underscoring its long-term implications for adult mental health.

Mathieson et al. (2014) found that relational victimization significantly contributed to depressive symptoms among youth. Drawing on a sample of 499 adolescents from grades six to eight, the study demonstrated that rumination partially mediated the relationship between relational victimization and depressive outcomes. The findings suggest that persistent gossiping and the tendency to ruminate on victimization experiences heighten vulnerability to relational aggression, thereby increasing the risk of developing depressive symptoms in later stages of life. Based on the above literature review, the hypothesis 1 (H1) was developed.

H1: Relational bullying victimization impacts on special education school children's depressive symptoms.

Empirical studies consistently demonstrate a strong link between physical bullying victimization and depressive symptoms. For example, Moore et al. (2017), in a large meta-analysis of 82 studies, reported that children and adolescents who experienced physical bullying had more than twice the odds of developing depression compared to non-victimized peers. Similarly, Ye et al. (2023) synthesized findings from 55 studies and confirmed a significant positive association between bullying and depressive symptoms across diverse populations, with physical victimization showing one of the strongest effect sizes among bullying subtypes. Further, Yu et al. (2018) investigated the relationship between bullying victimization and depressive symptoms in a sample of 284 adolescents. The findings demonstrated a significant statistical association, indicating that victims of bullying exhibited notably higher levels of depressive symptoms compared to their non-victimized peers. Longitudinal studies provide further causal evidence. Zhao et al. (2024), using random intercept cross-lagged panel modeling on 3,200 adolescents, found that physical bullying victimization significantly predicted increased depressive symptoms six months later, even after controlling for baseline depression. Likewise, Ren et al. (2023), analyzing data from 2,500 middle school students, demonstrated that physical victimization was specifically linked to increases in core depressive symptoms such as anhedonia and low mood over time. Taken together, these empirical findings provide robust evidence that physical bullying victimization is correlated with predictive of depressive symptoms across time, cultures, and contexts. This body of evidence directly supports the hypothesis that physical bullying victimization is positively associated with depressive symptoms. Based on the above literature review, hypothesis 2 (H2) was developed.

H2: Physical bullying victimization impacts on special education school children's depressive symptoms.

A growing body of empirical research has demonstrated that cyberbullying victimization is strongly associated with depressive symptoms in adolescents and young adults. For instance, Kowalski et al. (2014), in a large-scale survey of over 1,900 middle and high school students, found that victims of cyberbullying reported significantly higher levels of depressive symptoms compared to their non-victimized peers. Similarly, Hamm et al. (2015) conducted a systematic review and meta-analysis of 36 studies and concluded that cyberbullying victimization was consistently associated with depression, anxiety, and psychological distress across diverse adolescent populations. Alrajeh et al. (2021) has conducted a cross-sectional study to investigate the association between cyberbullying and cyber-victimization and depressive symptoms in undergraduates in Qatar. Approximately half of the students scored ten or above on the PHQ9 test, indicating depressive symptoms. The study results show that cyberbullying and cyber-victimization are common activities among Qatar University students, which may be connected with the high reported prevalence of depression symptoms. Hu et al. (2021) have performed a meta-analysis to investigate the association between cyberbullying victimization and depression by referring into 57 empirical studies from 17 countries. The

study revealed that a significant positive association between cyberbullying victimization and depression, substantially influenced by the age, gender and the year if publication. Strohacker et al. (2021) examined the association between traditional victimization and cyberbullying victimization and depressive symptoms and suicidality in a school-based sample. The study revealed that traditional victimization and cyberbullying victimization have substantial and positive relationship with depressive symptoms and suicidality. Cross-cultural studies further support this relationship. Foody et al. (2019), studying 2,171 Irish secondary school students, found that cyberbullying victimization was positively correlated with depressive symptoms and that this association was partially mediated by lower perceived social support. More recently, Keles et al. (2020), in a systematic review of longitudinal studies, confirmed that cyberbullying victimization is a reliable predictor of subsequent depressive symptoms across multiple cultural contexts. Based on the above literature review, hypothesis 3 (H3) was developed.

H3: Cyberbullying victimization impacts on special education school children's depressive symptoms.

Empirical research consistently indicates that adolescents exposed to culture-based bullying are at greater risk for depressive symptoms. Benner and Graham (2013), in a study of 1,773 ethnically diverse adolescents in the United States, found that experiences of ethnic discrimination and racially motivated bullying were strongly associated with elevated depressive symptoms. Similarly, Priest et al. (2014), through a systematic review of studies on racism and child health, confirmed that racial discrimination was consistently linked to depression and other adverse mental health outcomes across multiple cultural contexts. Longitudinal studies further support the causal relationship. Douglass et al. (2016), examining Latino adolescents over three years, reported that repeated exposure to racial/ethnic victimization predicted significant increases in depressive symptoms, even after accounting for socioeconomic factors and baseline psychological distress. Similarly, Schmitt et al. (2014) conducted a meta-analysis across 328 samples and found a robust negative association between perceived ethnic discrimination and mental health, with depression being one of the most commonly reported outcomes.

Cross-cultural research strengthens the evidence. A study by Cassidy et al. (2017) involving 2,171 immigrant youth in Canada found that those who reported culture-based bullying (related to language, religion, or ethnicity) exhibited significantly higher depressive symptoms than their non-bullied peers. Similarly, Tummala-Narra et al. (2021) highlighted that immigrant-origin adolescents in the U.S. who experienced culture-based harassment showed both heightened depressive symptoms and diminished academic engagement, suggesting compounding negative effects. Patil et al. (2018) conducted a systematic analysis of the 25 studies to examine the supportive and risky factors for depression in the United States. The findings revealed significant variation in whether research actively operationalized intersectionality using theoretical frameworks, study design, sampling, and analytics. It was found that racial/ethnic identity development with gender socialization during adolescence negatively impact on depression. Based on the above literature review, hypothesis 4 (H4) was developed.

H4: Culture-based bullying victimization impacts on special education school children's depressive symptoms.

Bullying is a multidimensional phenomenon that includes relational, physical, cyber, and culture-based forms of victimization. Gender has been widely examined as a potential factor influencing the prevalence and expression of these bullying types. However, findings across studies remain mixed. Relational bullying, such as social exclusion, rumor-spreading, and manipulation, has often been found to be more prevalent among girls due to their tendency to use indirect forms of aggression in peer conflict (Crick & Grotpeter, 1995; Wang et al., 2019). However, contradictory evidence exists, with some studies reporting no significant gender difference, particularly among students with disabilities, who may experience more uniform patterns of relational peer aggression regardless of gender (Rose et al., 2011). Physical bullying is traditionally associated with male students, who are more likely to engage in overt aggressive behaviors such as hitting, pushing, and physical intimidation (Olweus, 2013). Consequently, many studies find that boys experience higher levels of physical victimization (Espelage, 2014; Zych et al., 2019). Nevertheless, among children with special educational needs, several researchers have found that physical victimization may not differ significantly across gender due to shared vulnerabilities, reduced social protection, and higher exposure to unsafe peer interactions (Audi et al., 2021). Cyberbullying has emerged as a prevalent form of aggression facilitated by digital platforms. Studies have shown that gender differences are inconsistent: some report higher cyber victimization among girls due to their greater engagement in social networking platforms (Barlett & Coyne, 2014; Hinduja & Patchin, 2018), while others find no gender difference (Modecki et al., 2014).

Among children with special needs, the impact of gender appears even less pronounced because online victimization is strongly influenced by communication deficits and digital vulnerability rather than gender-specific behavioral tendencies (Cooper et al., 2022). Culture-based or identity-based bullying, which includes harassment linked to ethnicity, religion, or cultural traits, often shows limited gender variation. Research in multicultural and special-needs educational contexts suggests that both boys and girls are similarly exposed to culture-based aggression due to shared contextual factors such as minority-group identity or disability-related stigma (Fisher et al., 2021; Thornberg & Jungert, 2014). As a result, many studies observe no meaningful gender difference in culture-based bullying victimization.

In special educational settings, the pattern can be more complex. Some studies indicate that emotional difficulties associated with disabilities, such as communication challenges, low self-esteem, and social isolation, affect both genders similarly (Maiano et al., 2020). This may reduce or eliminate gender differences in depressive symptoms among children with special educational needs. Furthermore, the psychological impact of bullying, regardless of type, is often similar for boys and girls with disabilities due to parallel vulnerabilities and comparable exposure to stressors associated with peer victimization (Rose & Gage, 2017). Hence, hypothesis 5 (H5) and hypothesis 6 (H6) were developed.

H5: There is a gender difference on different types of bullying among special education school children.

H6: There is a gender difference on depressive symptoms among special education school children.

Based on the above literature review, the conceptual framework was developed as follows.

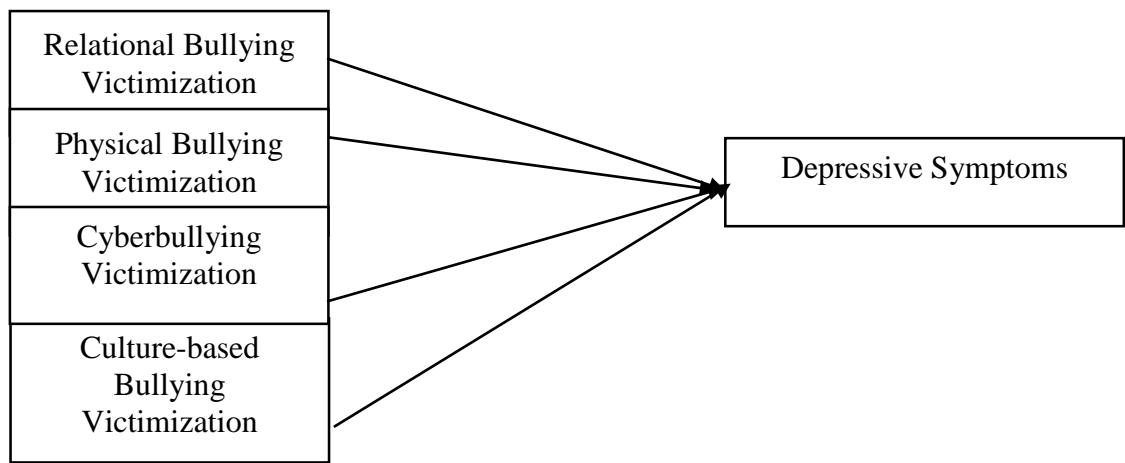


Figure 1: Conceptual Framework

Source: Developed by Researchers

3. Methodology

This study is deductive and quantitative, following a positivistic research philosophy. The research strategy employed was a survey, and the unit of analysis was special education school children. The study population consisted of 551 students—336 males and 215 females—from 62 schools across the Anuradhapura and Polonnaruwa districts. A stratified sampling technique was used to select a sample of 241 students (171 from Anuradhapura and 70 from Polonnaruwa). Data were collected using a questionnaire developed based on original measurement scales. The researcher directly distributed the self-administered questionnaires to the special education children; however, some respondents who were visually, mentally, or physically impaired could not complete the questionnaire independently. Therefore, the researchers conducted friendly conversations with the children or obtained parental assistance to complete the questionnaires. A total of 234 questionnaires were usable for data analysis, yielding a 97% response rate.

Measures

Bullying victimization was measured using the 16-item Bullying Victimization Scale developed by Harbin (2019). This instrument captures four dimensions of bullying commonly experienced by school-aged children, namely relational, physical, cyber, and culture-based bullying. Each item describes a specific victimization behaviour, and students indicate the frequency with which they experienced each behaviour using a Likert-type scale, typically ranging from 1 (*Never*) to 5 (*Always*). Higher scores represent greater levels of victimization across the four domains. The scale is frequently used in research involving children with special educational needs due to its clarity and comprehensive coverage of both traditional and technology-mediated bullying experiences. Sample items include statements such as “*Other*

students ignored me or left me out on purpose" (relational bullying), "*Someone hit, pushed, or kicked me at school*" (physical bullying), "*I received mean or threatening messages online*" (cyberbullying), and "*I was teased because of my culture, language, or religion*" (culture-based bullying).

Depressive symptoms were assessed using the 10-item short version of the Children's Depression Inventory (CDI-S), developed by Messer et al. (1995). This measure evaluates cognitive, emotional, and behavioural indicators of depression among children and adolescents. Each item consists of three statements reflecting increasing levels of symptom severity, scored from 0 to 2, and participants select the statement that best describes their feelings over the past two weeks. Total scores range from 0 to 20, with higher scores indicating more severe depressive symptoms. The CDI-S has been extensively validated and demonstrates strong psychometric properties across diverse child populations, including those with special education needs. Example items include "*I am sad once in a while / I am sad many times / I am sad all the time*" and "*Nothing will ever work out for me / I am not sure if things will work out for me / Things will work out for me okay.*"

Data analytical strategy

The researchers used the Statistical Package for the Social Sciences (SPSS) version 21 to analyze the demographic data of the sample respondents and to conduct validity and reliability tests, descriptive statistics, correlation analysis, multiple regression analysis, and independent sample t-tests. At the outset of the data analysis, outliers were examined, and all missing or incomplete data were removed. Multivariate assumptions—including normality, validity, multicollinearity, linearity, and homoscedasticity—were assessed to ensure the accuracy and appropriateness of the data before proceeding with the remaining analyses.

4. Findings

The demographic information in the sample profile included age, gender, religion, school type, parents' marital status, and district within the North Central Province of Sri Lanka. In terms of age, the majority of participants fell within the 6–10 age range (43.2%), followed by those aged 10–14 (35.3%) and 14–18 (21.6%). The gender distribution of the sample was relatively balanced, with 51.5% males and 48.5% females. Regarding religion, the majority were Buddhist (94.6%), while 5.4% were Hindu. With respect to school type, all participants (100%) were from public sector schools. Concerning parents' marital status, most were married (84.2%), while 8.7% were divorced, 5.8% were living with a partner, and 1.2% were widowed. In terms of district distribution within the North Central Province, the majority of children resided in Anuradhapura (73.9%), whereas 26.1% were from Polonnaruwa.

This study tested four fundamental assumptions of multivariate analysis, namely normality, linearity, homoscedasticity, and multicollinearity. According to Hair et al. (2014), testing the normality of data is a fundamental assumption in multivariate analysis. This study assessed normality using histograms and statistical indicators such as skewness and kurtosis. The results confirmed that the data were approximately normally distributed, as evidenced by the bell-shaped curves in the histograms and the close alignment of the mean and median. Furthermore, the skewness and kurtosis values for relational bullying victimization, physical bullying victimization, cyberbullying victimization, culture-based bullying victimization, and

depressive symptoms all fell within the acceptable range, indicating that the assumption of normality was met: $-.870$, $-.267$; $-.939, -.062$; $.504, -.1023$; $.452, -.1060$; and $-.808, -.095$ respectively, which are acceptable threshold values (± 2.58) (Coolican, 2009). The study tested linearity (correlation between independent variables: four types of bullying victimizations and dependent variable: depressive symptoms) and homoscedasticity (equal variances of depressive symptoms due to four types of bullying victimizations) assumptions using scatter plots by analyzing roughly the linear pattern with minimal curvature or deviations. Consequently, it was noted that the scatter plots were approximately closer to the diagonal line and no heterogeneity conditions were reported. Hence, linearity and homoscedasticity assumptions were fulfilled. The Multicollinearity assumption was tested by looking at the correlation matrices for the independent variables with VIF values and no multicollinearity problems exist in the independent variables of the study because their VIF values are all within the range of 1 to 10 and their tolerance values are more than 0.1 (VIF and tolerance values of relational bullying victimization and physical bullying victimization were 3.974 and .252 respectively).

Table 1 displays the values of reliability analysis, descriptive statistics including standard deviation and mean, and Pearson correlation analysis between bullying victimization and depressive symptoms.

Table 1: Reliability, Descriptive Statistics, and Correlation Analysis

Variables	Cronbach's Alpha (α)	Standard Deviation (SD)	Mean	Pearson Correlation Coefficients (r) with DS
RBV	.758	1.192	3.74	.790*
PBV	.821	1.404	3.01	.811*
CBV	.847	1.389	3.78	.513*
CCBV	.866	1.173	3.58	.759*
DS	.762	1.114	3.61	-

*Note: RBV – Relational Bullying Victimization; PBV – Physical Bullying Victimization; CBV – Cyber-bullying Victimization; CCBV – Culture-based Bullying Victimization; and DS – Depressive Symptoms, *-Correlation is significant at 0.05 level.*

Source: Survey Data, 2024

In this study, the reliability of the data was tested using Cronbach's Alpha and values of all variables were more than the threshold value ($\alpha > 0.7$), as denoted in Table 1. Further, based on the correlation analysis, strong positive relationships were found between relational bullying victimization, physical bullying victimization, and culture-based bullying victimization and depressive symptoms ($r = .790, .811$, and $.759$ respectively). Cyber-bullying victimization was found to be positively related with depressive symptoms moderately ($r = .513$).

Table 2: Model Summary-Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842 ^a	.709	.704	.606

Source: Survey Data, 2024

According to Table 2 of the model summary results, the R-squared value is 0.709, indicating that 70.9% of the variance in the dependent variable is explained by the independent variables, while 29.1% remains unexplained. Specifically, the independent variables—relational bullying victimization, physical bullying victimization, and culture-based bullying victimization—together account for 70.9% of the variation in depressive symptoms.

Table 3: Coefficients- Regression Analysis

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.
		β	Std. Error	β		
1	(Constant)	.507	.136		3.744	.000
	RBV	.280	.065	.299	4.277	.000
	PBV	.474	.065	.499	7.290	.000
	CBV	-.063	.057	-.080	-1.120	.264
	CCBV	.168	.057	.209	2.958	.003

Note: RBV – Relational Bullying Victimization; PBV – Physical Bullying Victimization; CBV – Cyber-bullying Victimization; CCBV – Culture-based Bullying Victimization; and DS – Depressive Symptoms

Source: Survey Data, 2024

Table 3 shows that relational bullying victimization ($\beta = 0.280$), physical bullying victimization ($\beta = 0.474$), and culture-based bullying victimization ($\beta = 0.168$) have significant positive effects on depressive symptoms at the 0.05 significance level. In contrast, cyberbullying victimization ($\beta = -0.063$, $p > 0.05$) was not significant. Therefore, hypotheses H1, H2, and H4 were supported.

An independent samples t-test was conducted to examine whether male and female special education school children differed in relational bullying victimization, physical bullying victimization, cyberbullying victimization, culture-based bullying victimization, and depressive symptoms.

Table 4: Independent Samples T-test

		Levene's Test for Equality of Variances		t-test for Equality of Means								
				F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
RBV	Equal variances assumed	.013	.908	-.433	169	.666	-.070	.162	-.390	.250	Lower	Upper
	Equal variances not assumed			-.432	167.4	.666	-.070	.162	-.390	.250		
PBV	Equal variances assumed	2.26	.075	1.67	169	.097	.289	.173	.053	.631	Lower	Upper
	Equal variances not assumed			1.67	168.8	.096	.289	.173	-.052	.630		
CBV	Equal variances assumed	1.20	.275	-.028	169	.978	-.005	.185	-.371	.361	Lower	Upper
	Equal variances not assumed			-.028	164.0	.978	-.005	.186	-.372	.362		
CCBV	Equal variances assumed	2.58	.110	-.737	169	.462	-.144	.195	-.529	.241	Lower	Upper
	Equal variances not assumed			-.741	168.7	.460	-.144	.194	-.527	.239		
DS	Equal variances assumed	.937	.334	-.376	169	.707	-.045	.119	-.282	.191	Lower	Upper
	Equal variances not assumed			-.378	168.9	.706	-.045	.119	-.281	.190		

Note: RBV – Relational Bullying Victimization; PBV – Physical Bullying Victimization; CBV – Cyber-bullying Victimization; CCBV – Culture-based Bullying Victimization; and DS – Depressive Symptoms

Source: Survey Data, 2024

As per Table 4, Levene's tests indicated that equal variances are assumed for RBV, CBV, CCBV, and DS (all $p > .05$). There was no significant difference between males and females in relational bullying victimization, $t(169) = -0.43$, $p = .666$, 95% CI [-0.39, 0.25]. Similarly, physical bullying victimization did not significantly differ by gender, $t(168.90) = 1.67$, $p = .096$, 95% CI [-0.05, 0.63]. Cyberbullying victimization showed no gender difference, $t(169) = -0.03$, $p = .978$, 95% CI [-0.37, 0.36]. Culture-based bullying victimization did not differ significantly between males and females, $t(169) = -0.74$, $p = .462$, 95% CI [-0.53, 0.24]. Finally, depressive symptoms were not significantly different between male and female

students, $t(169) = -0.47$, $p = .642$, 95% CI [-0.28, 0.19]. These results indicate that male and female special education school children report similar levels of bullying victimization across all four forms assessed, as well as comparable levels of depressive symptoms. Hence, bullying victimization is not gender-specific in this sample. Consequently, H5 and H6 were not supported.

5. Discussion

The present study examined the effects of relational, physical, cyber, and culture-based bullying victimization on depressive symptoms among special education students. The results reveal that relational bullying victimization significantly predicts depressive symptoms. This supports previous research showing that relational victimization, such as social exclusion, rumor-spreading, and friendship manipulation, can contribute strongly to depression by undermining adolescents' need for peer belonging and social identity (Prinstein et al., 2001; Rudolph et al., 2014; Sentse et al., 2017; Wang et al., 2011; Young & Furman, 2008). Because adolescence is a developmental period in which peer acceptance is critical, relational bullying creates enduring feelings of isolation, rejection, and loneliness, all of which are established predictors of depressive symptoms. Similarly, physical bullying victimization emerged as a significant predictor of depressive symptoms, with the highest coefficient among the forms studied. This finding is consistent with prior studies which have demonstrated that physical victimization contributes substantially to negative emotional outcomes (Moore et al., 2017; Zhao et al., 2024; Reijntjes et al., 2010; Hinduja & Patchin, 2009; Rivara et al., 2016).

Furthermore, culture-based bullying victimization was significantly associated with depressive symptoms. These results are in line with evidence suggesting that racial, ethnic, and culture-based harassment undermines self-esteem and leads to psychological distress (Benner & Graham, 2013; Priest et al., 2014; Douglass et al., 2016; Schmitt et al., 2014; Tummala-Narra et al., 2021). By contrast, cyberbullying victimization was not a significant predictor of depressive symptoms in this study. This finding diverges from much of the literature that has shown cyberbullying to be a risk factor for adolescent depression (Kowalski et al., 2014; Hamm et al., 2015; Keles et al., 2020; Baek et al., 2020; Landoll et al., 2015). Several explanations may account for this discrepancy. First, it is possible that the prevalence of cyberbullying was relatively low in this sample or that adolescents perceived cyberbullying as less threatening than face-to-face bullying. Second, adolescents may have developed coping strategies such as blocking perpetrators, reporting incidents, or disengaging from harmful online interactions. Finally, cultural factors may play a role, as the psychological impact of cyberbullying can vary across societies depending on digital literacy and norms regarding online behavior.

The findings of the present study revealed that male and female special education school children reported similar levels of relational, physical, cyber, and culture-based bullying victimization, as well as comparable levels of depressive symptoms. These outcomes align with prior research suggesting that among students with disabilities, bullying experiences may not follow typical gendered patterns observed in mainstream school populations (Rose et al., 2011). While previous studies in general education settings often report higher relational bullying among girls (Crick & Grotjahn, 1995; Wang et al., 2019) and higher physical victimization among boys (Olweus, 2013; Zych et al., 2019), evidence indicates that shared vulnerabilities within special education settings, such as social skill challenges, reduced peer protection, and

stigmatization, may reduce or eliminate gender-based differences (Audi et al., 2021; Maiano et al., 2020; Rose & Gage, 2017). Similarly, the absence of gender differences in cyberbullying victimization corresponds with research showing that online victimization among youth with special needs is influenced more by digital competence and social exposure than by gender (Cooper et al., 2022; Modecki et al., 2014). Collectively, these results suggest that bullying victimization in special education environments is not gender-specific, reinforcing the need for intervention and prevention programs that address both boys and girls equally, rather than adopting gender-targeted approaches.

Implications of the study

Based on the study findings, several implications are made for schools, teachers, policy makers, and educational authorities. Schools should establish comprehensive and inclusive anti-bullying policies that clearly define relational, physical, and culture-based bullying behaviors, along with structured guidelines for prevention, reporting, and disciplinary action. Since bullying victimization was not gender-specific, intervention programs should target all students equally, rather than focusing on boys or girls separately. Whole-school approaches that address relational, physical, and culture-based bullying are essential. These policies must be communicated to students, teachers, parents, and the broader school community to ensure collective awareness and accountability. Given the study's findings that relational, physical, and culture-based victimization significantly increase depressive symptoms among special school children, the enforcement of these policies should be proactive rather than reactive. Schools need to establish confidential reporting mechanisms and ensure that complaints are investigated promptly and fairly. Furthermore, consistent monitoring and documentation of bullying incidents can help track patterns and evaluate the effectiveness of interventions. Collaboration with educational authorities is essential to create standardized policy frameworks across schools in the North Central Province. This will help reduce inconsistencies in enforcement and provide clear benchmarks for addressing bullying in special education contexts.

Teachers, counselors, and school staff need specialized training to identify early warning signs of relational and physical bullying. Equipping educators with conflict resolution and intervention strategies can help them respond effectively and support at-risk children. Awareness can be raised through teachers that depressive symptoms occur among special needs through are victims of relational bullying. This means that special education children can be made aware of the consequences through their teachers. Parents can be informed because they can face such situations at home or in other places. If taken broadly, society itself can be aware. Parents and caregivers should be engaged through awareness workshops on bullying and its effects. Community participation can strengthen protective networks around children, ensuring consistent support both in and outside the school setting. Given the strong influence of relational bullying, establishing peer-support groups and mentorship programs can provide victims with safe networks. Encouraging peer allies and student-led initiatives can reduce isolation and promote resilience among bullied children.

Educational authorities and policymakers should prioritize the allocation of resources to special schools for capacity building, training, and mental health services. A province-wide

anti-bullying framework may provide standardized interventions across schools in North Central Province. Schools should collaborate with psychologists, counselors, and community-based organizations to provide regular mental health screenings, counseling, and intervention programs. Early detection and treatment of depressive symptoms can mitigate long-term negative outcomes. Further, since culture-based bullying significantly affects mental health, schools should integrate diversity and cultural awareness programs into the curriculum. Activities that celebrate ethnic, religious, and cultural differences can foster acceptance and reduce identity-based victimization.

The findings of this study have practical implications for educators, policymakers, and families, emphasizing the need for comprehensive support systems to enhance the well-being of special school children. Future interventions and strategies should consider the multifaceted nature of bullying victimization in addressing and alleviating depressive symptoms among special education children in the Sri Lankan context. Overall, this research contributes to the growing body of knowledge on the intersection of bullying victimization and depressive symptoms, offering valuable insights for the improvement of the overall physical and mental well-being of special education children in Sri Lanka.

Limitations and Future Research Directions

This study is limited by its focus on special education school children within a single province in Sri Lanka, which restricts the generalizability of the findings to broader populations and different educational contexts. The use of a cross-sectional design and self-reported measures introduces potential response bias and prevents causal inference. Additionally, the study did not differentiate between subtypes of relational and physical bullying, and cyberbullying exposure may have been underestimated due to varying levels of digital access among participants. Future research should explore more nuanced dimensions of bullying victimization, particularly within relational, physical, and culture-based forms, to better understand their differential effects on depressive symptoms. Studies conducted across multiple provinces or international contexts would strengthen comparative insight, while longitudinal designs could track changes in bullying experiences and psychological outcomes over time. Further, qualitative approaches such as interviews or focus groups could capture deeper emotional and behavioural interpretations, offering richer context to complement quantitative findings. Expanded investigation into cyberbullying in higher-exposure environments and examination of cultural inclusion initiatives as protective factors may provide valuable direction for targeted intervention development.

6. Conclusion

This study examined the effects of relational, physical, cyber, and culture-based bullying victimization on depressive symptoms among adolescents and explored whether these experiences differed between males and females in special education school settings. The findings revealed that relational, physical, and culture-based bullying victimization significantly predicted depressive symptoms, highlighting the emotional impact of both direct and indirect forms of aggression. Relational bullying, characterized by exclusion and social manipulation, was shown to contribute to depressive outcomes by undermining adolescents' sense of belonging and peer acceptance. Physical bullying demonstrated the strongest

predictive effect, reinforcing evidence that overt aggression leads to fear, humiliation, and emotional harm. Culture-based bullying was a significant predictor, indicating that identity-targeted harassment can diminish self-esteem and contribute to psychological distress.

In contrast, cyberbullying victimization did not significantly predict depressive symptoms, suggesting that its influence may be moderated by factors such as lower exposure, reduced perceived severity, or the use of coping strategies. Additionally, the study found no significant gender differences in bullying victimization or depressive symptoms. This contrasts with patterns commonly observed in mainstream educational contexts and suggests that shared vulnerabilities within special education settings may minimize typical gender distinctions.

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