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PERCEIVED SCHOOL SAFETY, HELP-SEEKING FOR MENTAL HEALTH PROBLEMS, AND CYBERBULLYING RELATED TO SUICIDE ATTEMPT AMONG ADOLESCENTS IN 13 ASIAN AND EUROPEAN COUNTRIES

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University of Turku

Faculty of Medicine
Department of Child Psychiatry
Doctoral programme on Inequalities, Interventions and New Welfare State
Research Centre for Child Psychiatry
INVEST Research Flagship

Supervised by

Professor Andre Sourander
Department of Child Psychiatry
INVEST Research Flagship
Turku University Hospital and
University of Turku
Turku, Finland

Reviewed by

Docent Olli Kiviruusu
Research Manager
Finnish Institute for Health and Welfare
Helsinki, Finland

Dr PhD Hannu Westerinen
Consulting Child Psychiatrist
The Wellbeing Services County of
Kymenlaakso
Kotka, Finland

Opponent

Professor Takeshi Tamura
Child and Adolescent Psychiatry, and
Marriage and Family Therapy
Tamura Takeshi Research Institute
Gunma, Japan

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To my family

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YUKO MORI: Perceived school safety, help-seeking for mental health problems, and cyberbullying related to suicide attempt among adolescents in 13 Asian and European countries
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ABSTRACT

Cross-national research on the mental health of adolescents is essential for understanding the unique challenges they face, identifying trends and risk factors, and ultimately promoting positive mental health outcomes on a global scale during this critical stage of development. The thesis aims to broaden the knowledge of mental health problems among adolescents with a specific focus on perceived school safety, help-seeking behavior for mental health problems, cyberbullying and suicide attempt in a large-scale international study of 13 countries in Asia and Europe.

First, a systematic literature review was conducted to synthesize the findings of the existing literature on perceived school safety. The following three studies were part of the school-based cross-national Eurasian Child Mental Health Study. This cross-national study included 21,688 adolescents aged 13–15 (50.8% girls) from 13 Asian and European countries (China, Finland, Greece, India, Indonesia, Iran, Israel, Japan, Lithuania, Norway, Russia, Singapore, and Vietnam) who completed self-administered surveys between 2011 and 2017. Logistic regression analyses were used to estimate odds ratios and 95% confidence intervals.

The systematic review, including 43 papers, revealed that 6.1–69.1% of students felt unsafe at school, and it was associated with various factors such as victimization and mental health issues. The cross-national study showed that 31.4% of adolescents felt unsafe at school. Strong associations were found between feeling unsafe and bullying victimization, mental health problems, and lack of teacher support. The use of formal help among adolescents was notably low, particularly in lower-income countries. Girls were generally more likely to seek help than boys. The prevalence of suicide attempt was 4.8%, and the rate was higher among girls. Victims of both cyber and traditional bullying had the highest suicide attempt risk, and emotional symptoms moderated the association.

The thesis reveals the important cross-national differences in the mental health and related behavior of adolescents. The findings highlight the need for global efforts to address adolescent mental health needs. Possible approaches to tackle the issue are a stepped-care model including school-based mental health promotion programs, anti-bullying interventions and digitalized mental health interventions.

KEYWORDS: Adolescents, Mental health problems, Cross-national research, Perceived school safety, Help-seeking behavior, Cyberbullying, Suicidal attempt

TURUN YLIOPISTO
Lääketieteellinen tiedekunta
Lastenpsykiatrian oppiaine
YUKO MORI: Koettu kouluturvallisuus, avun hakeminen mielenterveysongelmiin ja verkkokiusaamiseen liittyvät itsemurhayritykset nuorten keskuudessa 13:ssa Aasian ja Euroopan maassa
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TIIVISTELMÄ

Tutkimuksen tavoitteena oli laajentaa tietämystä nuorten mielenterveysongelmista. Tutkimuksessa tarkasteltiin koettua kouluturvallisuutta, avun hakemisen tapoja, verkkokiusaamista ja itsemurhayrityksiä laajassa 13 Aasian ja Euroopan maata kattaneessa kansainvälisessä aineistossa.

Ensiksi laadittiin systemaattinen kirjallisuuskatsaus koetusta koulu-turvallisuudesta. Seuraavat kolme tutkimusta olivat osa kouluissa toteutettavaa kansainvälistä epidemiologista Eurasian Child Mental Health Study -tutkimusta. Tutkimus sisälsi 21,688 13–15-vuotiasta nuorta (50,8% tyttöjä) Kiinasta, Suomesta, Kreikasta, Intiasta, Indonesiasta, Iranista, Israelista, Japanista, Liettuasta, Norjasta, Venäjältä, Singaporesta ja Vietnamista. Tutkimukseen osallistuneet nuoret täyttivät itsearviointikyselyt vuosina 2011–2017. Logistista regressioanalyysiä käytettiin arvioimaan vetosuhdetta (odds ratio) ja 95%:n luottamusvälejä.

Systemaattinen kirjallisuuskatsaus sisälsi 43 tieteellistä artikkelia ja se osoitti, että 6,1–69,1% opiskelijoista tunsi olonsa turvattomaksi koulussa. Turvattomuuden tunne liittyi erilaisiin tekijöihin, kuten kiusaamiseen ja mielenterveysongelmiin. Kansainvälinen vertaileva tutkimus osoitti, että 31,4 prosenttia nuorista koki olonsa turvattomaksi koulussa. Tutkimuksessa havaittiin vahva yhteys turvattomuuden tunteen ja kiusatuksi tulemisen, mielenterveysongelmien ja opettajien tuen puutteen välillä. Ammattiavun käyttö nuorten keskuudessa oli vähäistä, erityisesti alhaisemman tulotason maissa. Tytöt hakivat apua todennäköisemmin kuin pojat. Itsemurhayritysten esiintyvyys oli 4,8 prosenttia, ja esiintyvyys oli korkeampi tyttöjen keskuudessa. Sekä verkkokiusaamisen että perinteisen kiusaamisen uhrien itsemurhayritysten riskit olivat suurimmat, ja tunneoireet säätelivät yhteyttä.

Tutkimus paljasti tärkeää tietoa maiden välisistä eroista nuorten mielenterveydessä ja siihen liittyvässä käyttäytymisessä. Löydökset korostavat tarvetta maailmanlaajuisiin toimiin nuorten mielenterveysongelmien käsittelemiseksi vaiheittaisen hoidon mallilla, johon lukeutuvat koulupohjaiset mielenterveyttä edistävät ohjelmat, kiusaamisen vastaiset interventiot ja digitaaliset mielenterveysinterventiot.

AVAINSANAT: Nuoret, Mielenterveysongelmat, Kansainvälinen tutkimus, Kouluturvallisuus, Avun hakeminen, Kyberkiusaaminen, Itsemurhayritykset

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Abbreviations

CI	Confidence interval
EACMHS	Eurasian Child Mental Health Study
ESPAD	European School Survey Project on Alcohol and Other Drugs
GEE	Generalized estimating equation
GEAS	Global Early Adolescent Study
GSHS	Global School-based Student Health Survey
GYTS	Global Youth Tobacco Survey
HBSC	Health Behaviour in School-aged Children
IYDS	International Youth Development Study
ISCWeB	International Survey of Children's Well-Being
ISCC	International School Climate Collaborative
KIDSCREEN	European Public Health Perspective Study
NHLBI	National Heart, Lung, and Blood Institute
OECD	Organisation for Economic Co-operation and Development
OR	Odds ratio
PICO	Population, Intervention, Comparison, Outcome
PISA	Programme for International Student Assessment
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PROSPERO	International Prospective Register of Systematic Reviews
SDQ	Strengths and Difficulties Questionnaire
SES	Socioeconomic status
UNESCO	United Nations Educational, Scientific, and Cultural Organization
WHO	World Health Organization
YRBS	Youth Risk Behavior Survey
YRBSS	Youth Risk Behavior Surveillance System

List of Original Publications

This dissertation is based on the following original publications, which are referred to in the text by their Roman numerals:

I Mori Y, Tiiri E, Khanal P, Khakurel J, Mishina K, Sourander A. Feeling Unsafe at School and Associated Mental Health Difficulties among Children and Adolescents: A Systematic Review. *Children.* 2021; 8(3): 232. https://doi.org/10.3390/children8030232

II Mori Y, Tiiri E, Lempinen L, Klomek A B, Kolaitis G, Slobodskaya H R, Kaneko H, Srabstein J C, Li L, Huong M N, Praharaj S K, Ong S H, Lesinskiene S, Kyrrestad H, Wiguna T, Zamani Z, Sillanmäki L, Sourander A. Feeling Unsafe at School Among Adolescents in 13 Asian and European Countries: Occurrence and Associated Factors. *Front Psychiatry.* 2022; 13. https://doi:10.3389/fpsyt.2022.823609

III Mori Y, Sourander A, Mishina K, Ståhlberg T, Klomek A B, Kolaitis G, Kaneko H, Li L, Huong M N, Praharaj S K, Kyrrestad H, Lempinen L, Heinonen E. Unmet need for mental health care among adolescents in Asia and Europe. *European Child & Adolescent Psychiatry.* 2024. https://doi.org/10.1007/s00787-024-02472-0

IV Grimland M, Mori Y, Lesinskiene S, Li L, Ong S H, Praharaj S K, Wiguna T, Zamani Z, Heinonen E, Gilbert S, Klomek A B, Sourander A. Cyberbullying and Suicide Attempts among Adolescents: A Cross-national Comparison. (*Manuscript*)

1 Introduction

Adolescence is a unique and formative period with multiple physical, emotional, and behavioral changes (Griffin, 2017). The World Health Organization (WHO) defines an adolescent as an individual between 10 and 19 years old (World Health Organization, 2023a). One in seven, or 166 million, adolescents worldwide experience mental health disorder, which contributes to a significant disease burden (United Nations International Children's Emergency Fund, 2021). The impact of the burden of mental disorders seems to vary regionally, being more pronounced in the Americas and Europe (Baranne & Falissard, 2018). Mental disorders rise sharply during the adolescent years, as the peak and median age of onset for any mental disorder are 14.5 years and 18 years, respectively (Solmi et al., 2022). Mental health problems during adolescence are likely to continue into adulthood, impairing both physical and mental health in later years (Otto et al., 2021). Therefore, there is an urgent need to address mental health issues during adolescence to prevent, identify, and manage mental health difficulties at an early stage.

The environment can have a powerful impact on people's mental health. For adolescents, a safe school environment is crucial to ensure their educational success and development (Lacoe, 2020). This is especially important because adolescents spend a significant amount of time at school during a critical period of their cognitive and socio-emotional development. The United Nations Sustainable Development Goals also state that schools should provide safe, nonviolent, inclusive, and effective learning environments for all students (United Nations Educational Scientific and Cultural Organization, 2017). It is not enough to provide a physically safe environment; psychological safety should also be ensured. Students can still feel concerned about their safety even if a school is free from physical violence (Dewey, 2006). Feeling unsafe at school has been linked to mental health challenges among students, including feelings of depression, engaging in suicidal behavior, and self-harming (Gase et al., 2017; Hamada et al., 2018). Cross-national research on adolescents' feelings of unsafety is essential for improving their well-being and implementing preventive measures to create safer and more supportive educational environments worldwide (Shaw, 2005).

With alarmingly high rates of mental health disorders among adolescents, numerous efforts have been made to enhance mental health services for the well-being of adolescents. However, very few adolescents with mental health problems receive the help they need (Finkelhor et al., 2021; Islam et al., 2020). The gap between the high prevalence of mental health issues and low service utilization among adolescents is a problem recognized worldwide (Gulliver et al., 2010; Reynolds et al., 2012). It is estimated that more than half of young people worldwide do not receive the mental health care they need (Ghafari et al., 2022). Adolescents often do not seek help for their mental health problems because they may have poor mental health literacy, feel ashamed, worry about what others will think, or face obstacles such as the cost and availability of services (Radez et al., 2021). Most studies on this topic have only examined help-seeking behavior from health or social sector professionals (formal help-seeking) (Velasco et al., 2020). There is a lack of research examining how adolescents seek help, including formal and also informal sources such as friends or family, across different countries.

In recent years, a new type of violence, known as cyberbullying, has emerged through the availability of the Internet, causing concerns due to its negative effects on the mental health of adolescents (Kwan et al., 2020; Sourander et al., 2010). Being a victim of cyberbullying has been linked to suicide attempt (John et al., 2018). This is a cause for serious concern, with suicide being the fourth leading cause of death globally among 15–19-year-olds (World Health Organization, 2021b). It has been estimated that more than one adolescent dies from suicide every 11 minutes (United Nations International Children's Emergency Fund, 2021). One of the most robust predictors of completed suicide among adolescents is a prior history of suicide attempt (Beghi et al., 2013; Bostwick et al., 2016). Existing evidence on the association between cyberbullying and suicide attempt is largely from high-income Western countries, while data from low- and middle-income countries are scarce (Barzilay et al., 2017). Moreover, despite evidence documenting the moderating effect of emotional symptoms on the association between cyberbullying and suicide attempt (Fredrick & Demaray, 2018; Quintana-Orts et al., 2022), the moderation effect in a cross-national context remains poorly understood.

The present thesis uses a large international dataset to examine mental health problems and related behavior among adolescents aged 13–15 years in 13 Asian and European countries. This study aims to address the research gap in the field of cross-national research on adolescent mental health with a specific focus on perceived school safety, help-seeking behavior for mental health, and the association between cyberbullying and suicide attempt. These include information on the cross-national variation in the prevalence and factors associated with feeling unsafe at school. Further, this thesis aims to investigate how help-seeking behavior for mental health

problems differs by country and examines the unmet need for formal mental health care. The thesis also examines the prevalence and associations between cyberbullying and suicide attempt and the moderating effect of emotional symptoms on this association. The findings of this thesis have important implications for developing prevention strategies and planning health care and educational services for adolescent mental health across countries.

2 School-Based Surveys on Adolescent Mental Health Problems and Related Behaviors

School-based surveys are important tools for understanding and addressing the well-being of young people at a national level. By conducting such surveys repeatedly over time, it is possible to identify time trend changes in student mental health. There is a limited number of countries that conduct their own national surveys tailored to assess adolescent mental health. For example, the Finnish School Health Promotion study gathers data on the well-being, health behavior, and schoolwork of children and adolescents nationwide every second year (Helenius & Kivimäki, 2023; Holm et al., 2024). Similarly, the Australian Child and Adolescent Survey of Mental Health and Wellbeing assesses various mental health issues among youths (Hafekost et al., 2016). In the United States, the Youth Risk Behavior Surveillance System collects data on health-related behaviors and experiences among high school students, including mental health issues (Underwood et al., 2020). Common methodological challenges in school-based survey research include ensuring representative sampling, obtaining accurate self-reported data, and changes in instruments overtime (Bidonde et al., 2023). Despite these challenges, school-based surveys are important tools for strengthening mental health promotion at various levels, such as at the school, municipality, and national levels.

Cross-national research is important for a comprehensive understanding of adolescent mental health on a global scale. It can provide valuable insights into the trends and variations in adolescent mental health across different countries and cultures. There is clear evidence of cross-national variation in the prevalence rates of mental health problems among adolescents (Ma et al., 2021; Polanczyk et al., 2015). However, these global estimates are largely derived from literature reviews that synthesize the results of isolated studies rather than from cross-national epidemiological surveys. To make a valid cross-national comparison of survey results, it is important that sample characteristics and methods are comparable across countries (Achenbach et al., 2012). Some cross-national studies compare samples with different age groups (Kapi et al., 2007; Wade et al., 2002) or employ different sampling methods (household or school-based surveys) (Ravens-Sieberer et al.,

2008) or data collection methods (Verhulst et al., 1993). This makes it unclear whether the variation found in the result reflects cross-national or methodological differences between countries. Cross-national studies with a sound methodological design can inform evidence-based strategies for promoting and improving the mental well-being of this vulnerable population worldwide.

Several large-scale international studies have collected data on the health and well-being of adolescents from different countries. The Global School-based Student Health Survey (GSHS) examines the risk and protective factors of health among young people aged 13 to 17 years in a large number of mainly low- and middle-income countries (World Health Organization, 2023b). The Programme for International Student Assessment (PISA) covers 90 countries, primarily in the Organisation for Economic Co-operation and Development (OECD) and partner countries, and examines the academic knowledge, well-being, and experiences of 15-year-old students (OECD, 2023). Health Behaviour in School-aged Children (HBSC) collects data on health-related behavior among young people aged 11, 13, and 15 years in 51 countries from Europe and North America (World Health Organization, 2023c). These are the most comprehensive, longstanding international surveys on adolescent health and well-being. Other surveys such as the European School Survey Project on Alcohol and Other Drugs (ESPAD), the Children's Worlds: International Survey of Children's Well-Being (ISCWeB), the Global Research Alliance project, the European Public Health Perspective Study (KIDSCREEN), and the International School Climate Collaborative (ISCC) have also investigated various aspects of well-being and social experiences. Additionally, the Global Youth Tobacco Survey (GYTS) focuses exclusively on substance use among youth. These surveys all monitor the general health and well-being of adolescents and measure a limited number of mental health-related outcomes. There is a lack of international studies that provide a comprehensive understanding of adolescent mental health that cover key mental health-related behaviors, such as help-seeking behavior for mental health problems and suicide behavior across countries with widely differing income levels and cultures. Table 1 provides an overview of international studies on the mental health problems and related behavior of children and adolescents.

Table 1. International surveys on the mental health problems and related behavior of children and adolescents.

Name	Number of countries	geographic Coverage	Target age	Data collection year	Focus	Included mental health related topic
Global school-based student health survey (GSHS)	104	Worldwide (primarily low- and middle-income countries)	13–17	2003–2021	Health and well-being	Feelings and concerns, Suicide attempt and Self-Harm, Mental health knowledge, Perceived safety in school toilets, Safety-related absence, Bullying
Programme for International Student Assessment (PISA)	90	OECD and partner countries	15	2000–2022	Academic knowledge and skills, well-being	Life satisfaction, Failing experience, Feeling, Sense of belonging at school, Bullying
Health Behaviour in School-aged Children (HBSC)	51	Europe and North America	11, 13, 15	1983–2022	Health-related behaviors and well-being	Life satisfaction, Mental well-being, Self-efficacy, Health complaints, Loneliness
European School Survey Project on Alcohol and Other Drugs (ESPAD)	> 40	Europe	15–16	1995–2019	Substance use	Cannabis and other illicit drug use, Cigarette use, Electronic cigarette use, Alcohol use, Suicidality
Children's Worlds: International Survey of Children's Well-Being (ISCWeB)	> 35	Worldwide	7–15	2010–2021	Well-being	Subjective well-being
Global Research Alliance project, Improving the lives of young people, University-based global child, and adolescent research	32	Worldwide	7–11	2020	Impact of COVID-19 lock-down on well-being and aggression	Emotional, psychological, and social well-being, Depression, Anxiety and Stress, Victimization, Resilience
European Public Health Perspective Study (KIDSCREEN)	13	Europe	8–18	2001–2004	Quality of life	Psychosomatic complaints, Mental Health (Emotional symptoms, Conduct problems, Hyperactivity, Peer problems, and Prosocial behavior), Risk behavior, Emotional well-being, Quality of life

Name	Number of countries	geographic Coverage	Target age	Data collection year	Focus	Included mental health related topic
International School Climate Collaborative (ISCC)	14 countries or territories	Europe, Caribbean and North America	11–17	NR	School climate and mental health	School climate, Mental health (depression and emotional dysregulation), Somatic symptoms
Surveys on substance use only						
Global Youth Tobacco Survey (GYTS)	> 180	Worldwide	13–15	1999–2019	Tobacco use	Prevalence of cigarette smoking and other tobacco use among young people

Large-scale international surveys on the mental health problems and related behavior of children and adolescents including more than 10 countries were included in this table. OECD = The Organisation for Economic Co-operation and Development, NR = Not reported.

3 Review of the Literature

3.1 Perceived school safety

Key messages

- It is important to provide a school environment where students can feel emotionally safe.
- There was a lack of systematic review providing an overview of research findings on perceived school safety and associated factors.
- The prevalence of students feeling unsafe at school ranges from 6.1% to 69.1% across studies.
- Feeling unsafe at school is associated with various factors including being victimized and mental health problems and suicidal behavior. The majority of studies on perceived school safety were carried out in high-income Western countries, and there is lack of large international studies.

3.1.1 Definition of perceived school safety

The United Nations' Educational, Scientific, and Cultural Organization (UNESCO) describes school safety as the practice of creating and sustaining a school environment where both students and staff can engage in learning activities in a space that is physically, cognitively, and emotionally safe (United Nations Educational Scientific and Cultural Organization, 2017). A safe school environment consists of three components: physical security, emotional well-being, and the establishment of structured rules and disciplines (Wang & Degol, 2016). In this thesis, perceived school safety refers to the subjective perception or belief regarding the safety and security of a school environment (Perumean-Chaney & Sutton, 2013). Ensuring both physical and psychological safety is essential for the educational success and development of adolescents.

Most studies use self-report questionnaires to measure perceived school safety, which ask children and adolescents to express their feelings of safety at school using a single question. Multiple items are used to measure perceived school safety in some studies, such as how safe they felt in different locations of school (e.g., classrooms, corridors, and toilets). There is a lack of consensus in the research on what constitutes or how to measure perceived school safety. This makes it difficult to compare the results of the different studies.

3.1.2 Previous systematic reviews on perceived school safety

School safety is often included as an element within the broader concept of school climate. There have been many systematic reviews exploring school climate, with some offering insights into perceived school safety. School climate is a multidimensional concept and generally refers to the quality and character of experiences in various aspects of school life (Thapa et al., 2013). Although there is no consensus on how to precisely define or measure school climate, most reviews identify four to five key dimensions, including school safety, relationships, school connectedness, institutional environment, parental support, and teaching (Gonzálvez et al., 2023; Grazia & Molinari, 2020; Larson et al., 2020; Lenz et al., 2021). Previous reviews consistently show associations between adolescents' psychosocial well-being and school climate (Aldridge & McChesney, 2018; Kutsyuruba et al., 2015; Larson et al., 2020; Zynuddin et al., 2023). Yet, it remains unclear to what extent perceived school safety explains these associations and what the role of other elements is within the school climate. Addressing this research gap is crucial for the development of effective strategies and interventions to create a safe learning environment and support students' well-being.

3.1.3 Prevalence of students who feel unsafe at school

A significant proportion of adolescents do not feel safe at school. An increasing number of publications are reporting the prevalence of students who feel unsafe at school, indicating an increasing research interest in this topic. Previous research on the prevalence of perceived school safety has been mainly based on cross-sectional studies that collected data from a population at a single point in time (Susser, 2006). While one survey study, conducted in the US by Atteberry-Ash et al. (2019), found that 9.8% of high school students reported feeling unsafe at school, another study found that 15.7% of secondary school students in the Netherlands reported feeling unsafe at school (Mooij & Fettelaar, 2012). This large variation between studies could reflect cultural differences in perceived school safety but also differences in

the study methods, the lack of a definition for perceived school safety, and different measurements used in the study.

3.1.4 Associated factors with perceived school safety

Students' perception of safety is shaped by complex interactions among social, psychological, and biological factors.

Individual-level factors

Extensive literature consistently highlights strong associations between feeling unsafe at school and various mental health issues, including depression, suicidal behavior and eating disorders (Arora & Wheeler, 2018; La Salle et al., 2021; Lear et al., 2020; Lessard et al., 2021; Lindstrom Johnson et al., 2018; Moore et al., 2018; Rose et al., 2018; Silke et al., 2023; Taliaferro et al., 2019; Williams et al., 2023). Mixed results on gender differences suggest that both boys and girls share concerns about feeling unsafe at school. Some studies suggest boys are more likely to feel unsafe (Atteberry-Ash et al., 2019; Bachman et al., 2011; Brusseau & Burns, 2021; Hong & Eamon, 2012; Lacoe, 2020; Lorenzo-Blanco et al., 2016; March & Serdar Atav, 2010; Yablon & Addington, 2010), while others report greater fears among girls (Hong et al., 2016; Lessard et al., 2021; Lindstrom et al., 2018; Mooij & Fettelaar, 2012; Mowen & Freng, 2019; Perumean-Chaney & Sutton, 2013). Studies have also reported mixed results on the impact of age on perceived school safety, with some indicating that older students are more likely to report such feelings (Bear et al., 2018; Goldweber et al., 2013; Hong & Eamon, 2012; Mowen & Freng, 2019), while others reporting the opposite (Lindstrom et al., 2018; Mooij & Fettelaar, 2012; Yablon & Addington, 2010). Students belonging to minority groups, including sexual minority youths or racial minorities, seem to feel less safe in school environments compared to those aligned with the majority culture (Pampati et al., 2020; Pistella et al., 2020; Rose et al., 2018). This might be because sexual and racial minority students face an elevated risk of school bullying (Albdour & Krouse, 2014; Cénat et al., 2015). Most studies did not report the prevalence separately for boys and girls. Gender-stratified analyses have been conducted in some studies reporting a similar prevalence between boys and girls, but one Finnish study found that boys felt less safe than girls (Bowser et al., 2018; Hamada et al., 2018; Tiiri et al., 2020).

Immediate environment

Research indicates that students who are victims of violence such as school bullying and youth violence are more likely to feel unsafe at school, emphasizing their

understandable fear and avoidance of school (Earnest & Brady, 2016; Eisenberg et al., 2007; Garnett & Brion-Meisels, 2018; Glew et al., 2008; Goldweber et al., 2013; Konishi et al., 2017; López et al., 2020; Meyer et al., 2018; Pampati et al., 2020; Radu, 2018). Substance use (Bachman et al., 2011; Gase et al., 2017; Mitchell et al., 2018; Rezun et al., 2023; Skiba et al., 2004), lower academic achievement (Eugene, 2020; Lacoe, 2020; Mitchell et al., 2018; Mooij & Fettelaar, 2012; Perumean-Chaney & Sutton, 2013), and being less physically active (Pistella et al., 2020; Rajbhandari-Thapa et al., 2022) have been highlighted as factors associated with feeling unsafe at school. A large-scale longitudinal study found that feeling unsafe at school leads to decreases in academic achievement, not the other way around (Lacoe, 2020). Students who carried or saw others carrying a weapon at school were more likely to feel unsafe (Docherty et al., 2020; Hong & Eamon, 2012; Mooij & Fettelaar, 2012; Skiba et al., 2004). While strengthening school security measures is a common preventive response, the use of certain security measures, such as metal detectors and digital surveillance technology, negatively impacts students' perceptions of school safety (Lindstrom et al., 2018; Mowen & Freng, 2019; Perumean-Chaney & Sutton, 2013; Yablon & Addington, 2010). The presence of a school security officer is an exception, associated with higher perceived school safety (Lindstrom et al., 2018; Pentek & Eisenberg, 2018). Students may perceive a difference in the type of security measures, viewing the presence of a security officer as a protective measure against external threats (interpreted as safety) and the presence of interior cameras and metal detectors as a form of observation (interpreted as surveillance) (Lindstrom et al., 2018). Fair, clear, and consistently enforced rules enhance the sense of school safety (Bachman et al., 2011; Gini et al., 2018; Hong & Eamon, 2012; Perumean-Chaney & Sutton, 2013). Trust in teachers, perceived care from teachers, and smaller class sizes are additional factors positively influencing perceptions of school safety (Hong & Eamon, 2012; Mitchell et al., 2018; Mooij & Fettelaar, 2012; Perumean-Chaney & Sutton, 2013; Skiba et al., 2004; Valente & Crescenzi-Lanna, 2022). Students who have a positive relationship with their family and peers, such as having an intact family and close friends, are also factors associated with feeling safe at school (Hong et al., 2016; Hong & Eamon, 2012; Mooij & Fettelaar, 2012; Valente & Crescenzi-Lanna, 2022).

3.1.5 Previous cross-national studies on perceived school safety

Most of the current evidence on perceived school safety is based on studies conducted in single Western countries, especially the United States. Very few cross-national studies have been conducted on perceived school safety among adolescents. The largest cross-national study included 14 countries, regions, and territories

(Belgium: French-speaking community, Germany, Greece, Hungary, Italy, Jamaica, Latvia: Latvian-speaking community, Latvia: Russian-speaking community, Lithuania, Malta, Puerto Rico, Russia, Slovakia, and the United States) and examined students' perceptions of school climate, including the school safety subscale (La Salle et al., 2021). The study found significant country variations in the prevalence of perceived school safety, with students feeling less safe in Jamaica and Puerto Rico, while students felt safer in Greece, Italy, Lithuania, and Russia compared to the reference country, the United States. Other cross-national studies have only compared perceived school safety between two countries. For example, Zhang (2023) compared perceived school safety between Japan and Russia and found that Russian students feel safer at school than Japanese students. Bear's research indicates that Chinese students in middle and high schools feel safer than American students (Bear et al., 2018). This is consistent with the previous findings from a master's thesis by Gong (2016). A household survey conducted in a refugee camp in Rwanda and in two refugee settlements in Uganda revealed that more adolescents in Rwanda reported feeling unsafe, at least some of the time, than adolescents in Uganda (Meyer et al., 2018). A large-scale cross-national survey, the GSHS, includes one item measuring perceived safety but is somewhat limited to safety in school restrooms, not school settings in general. Table 2 presents previous studies on perceived school safety among adolescents.

Table 2. Studies on perceived school safety among adolescents.

Author, publication year, country	Data collection	N	Age (grades)	Measure	Prevalence of feeling unsafe (%), associated factors
Cross-sectional study					
Atteberry-Ash 2019, USA	2015	11,986	M=15.7	I feel safe at my school.	9.8, Gender, Race/Ethnicity
Bachman 2011, USA	2007	20,138	(5,8,11)	I feel safe in my school.	11.0 (5th grader) Gender, Victimization, Security measures, Substance use, Skipping school
Bowser 2018, USA	2015	5,138	M=12.3	How often do you feel safe and secure at school?	10.2 (Boys: 10.9, Girls: 9.3) Race/Ethnicity, Victimization
Earnest 2016, USA	2010	75,590	(9,12)	I feel safe at school.	6.1 Victimization
Eisenberg 2007, USA	2004	83,731	(6,9,12)	3 items (e.g., I feel safe at school.)	No prevalence data available Victimization, Mental health problems
Esselmont 2014, USA	2002	7,464	(6-10)	I feel safe at this school.	No prevalence data available Victimization, Weapon
Garnett 2018, USA	2015	2,481	M=14.5	4 items (e.g., I feel safe at school.)	No prevalence data available Victimization
Gase 2017, USA	2015	33,572	(6–12)	2 items (e.g., student feels safe at school)	No prevalence data available Mental health problems, Academic achievement, Substance use
Gini 2018, Italy	2016	1,378	(6–10)	I feel safe in my class.	No prevalence data available Victimization, Teacher relationships
Glew 2008, USA	2002	5,391	(7,9,11)	I feel safe at my school.	No prevalence data available Victimization
Goldweber 2013, USA	2008	12,763	(6–12)	2 items (e.g., I feel safe at this school.)	No prevalence data available Age, Victimization

Author, publication year, country	Data collection	N	Age (grades)	Measure	Prevalence of feeling unsafe (%), associated factors
Hamada 2018, Japan	2011	1,865	M=13.9	Do you feel secure at school?	69.1 (boys: 68.4, girls: 69.9) Mental health problems
Hong 2016, USA	1995	4,118	(9–12)	I don't feel safe at this school.	25.0 Race/Ethnicity, Gender, Victimization, Family and peer relationships, Substance use, Sexual debut
Konishi 2017, Canada	2008	48,874	(8–12)	3 items (e.g., I feel safe at school)	No prevalence data available Victimization
Lear 2020, USA	2016	13,449	(6,8,10,12)	How often do you feel unsafe at school?	No prevalence data available Mental health problems
Lessard 2021, USA	2017	17,112	(7–12)	8-items (different school locations)	No prevalence data available Race/Ethnicity, Gender, Mental health problems, Weight-related health behaviors
Lindstrom 2018, USA	2014–2016	54,350	(6–12)	4 items (e.g., I feel safe at this school.)	No prevalence data available Race/Ethnicity, Gender, Age, Security measures
López 2020, Chile	2017	50,344	(5–8)	2 items (e.g., I feel fear in my school.)	No prevalence data available Victimization
March, 2010, USA	2003	6,989	(9–12)	Several items (e.g., felt unsafe at school or on way to or from school)	No prevalence data available Gender, Religion
Meldrum 2018, USA	2017	7,958	M=14.4	I feel safe at my school.	22.1 Suspension and Expulsion
Mitchell 2018, USA	2009	5,441	(3-12)	9 items (e.g., I feel safe inside the school.)	No prevalence data available Teacher relationships, Language
Mooij 2012, Netherlands	2008	71,560	M=14.3	7 items different school locations	15.7 Gender, Age, Academic achievement, School environment, Family relationships, Neighborhood, Weight-related health behaviors, Sleep, Skipping school

Author, publication year, country	Data collection	N	Age (grades)	Measure	Prevalence of feeling unsafe (%), associated factors
Moore 2018, USA	2013	1,169	(9,11)	2 items (e.g., I feel safe in my school.)	No prevalence data available Mental health problems, Victimization
Mowen 2019, USA	2002	15,362	(10)	2 items (e.g., if they felt safe at the school)	No prevalence data available Race/Ethnicity, Gender, Age, SES, Victimization, School environment
Nijs 2014, Netherlands	2007	11,130	11–19	Do you ever feel unsafe at school?	No prevalence data available Mental health problems
Pampati 2020, USA	2016	542	>13	Do you feel safe at school?	26.9 Gender
Pentek 2018, USA	2016	126,868	(8,9,11)	I feel safe at school.	7.6 Race/Ethnicity, Security measure
Pistella 2020, USA	2013–2015	31,609	(6–12)	2 items (e.g., I feel safe in my school.)	No prevalence data available Gender, Victimization, Weight-related health behaviors
Radu 2018, USA	1997	4,130	12–14	Do you feel safe at school?	No prevalence data available Victimization
Rajbhandari-Thapa 2022, USA	2017	362,926	(9–12)	7 items (e.g., I feel safe in my school.)	No prevalence data available Weight-related health behaviors
Rezun 2023, Russia	2015–2018	1,850	12–18	12 items (e.g., I feel safe at school)	No prevalence data available Mental health problems, Substance use
Rose 2018, USA	2016	9,619	(9–12)	Do you feel safe at your school?	18.9 Gender
Silke 2023, Ireland	2018	4,848	M=15.8	I feel safe at school.	No prevalence data available Mental health problems
Skiba 2004, USA	2001	2,231	(6–12)	Overall, I feel that this school is a safe school.	No prevalence data available Victimization, School Climate, Teacher relationships, Substance use, Weapon

Author, publication year, country	Data collection	N	Age (grades)	Measure	Prevalence of feeling unsafe (%), associated factors
Taliaferro 2019, USA	2016	1,635	(9,11)	I feel safe at school.	No prevalence data available Mental health problems
Vaillancourt 2010, Canada	2008	11,152	(4-12)	Several items different locations and time	No prevalence data available Victimization
Williams 2023, USA	2019	744	M=15.6	How often do you feel safe and secure at school?	No prevalence data available Mental health problems
Yablon 2010, Israel	NR	2,199	(6,8,10)	Several items different locations	No prevalence data available Gender, Race/Ethnicity, Age, Victimization, Security measures, School climate, Neighborhood
Yablon 2019, Israel	NR	609	(9–12)	6 items (e.g., I do not feel safe in this school.)	No prevalence data available Mental health problems
Repeated cross-sectional study					
Brusseau 2021, USA	2015, 2017, 2019	44,066	M=16.0 (9–12)	3 items (e.g., Absenteeism because school is unsafe)	No prevalence data available Gender, Race/Ethnicity, Steroid use, BMI
Docherty 2020, USA	2014, 2016, 2018	122,840	(8,10,12)	I feel safe at my school.	18.1 Weapon
Hodges 2023, USA	2009–2019[a]	211,236	14-18 (9–12)	3 items (Absenteeism because school is unsafe)	9.2 (Absenteeism because school is unsafe) Race/Ethnicity, Gender, School environment
Tiiri 2020, Finland	2008, 2014	3,997	M=14.4 (7,9)	I feel safe at school.	2008: 13.1 (boys: 14.7, girls: 11.0) 2014: 11.4 (boys: 11.5, girls: 11.2)
Longitudinal study					
Arora 2018, USA	1993, 1995	1,354	M=14.2 in 1993, M=17.8 in 1995	8 items (e.g., I do not feel safe.)	No prevalence data available Mental health problems
Eugene 2020, USA	2002, 2004	9,518	(10,12)	3 items (e.g., Does not feel safe at this school)	No prevalence data available Academic achievement

Author, publication year, country	Data collection	N	Age (grades)	Measure	Prevalence of feeling unsafe (%), associated factors
Flitner 2022, USA	1994–1995, 2002	5,197	NR	I feel safe in my school.	No prevalence data available Race/Ethnicity
Hong 2012, USA	2004, 2006	1,249	10–15	I don't feel safe at this school.	30.9 Gender, Age, SES, School environment, Teacher, Family and Peer relationships, Substance use, Weapon
Lacoe 2020, USA	2007, 2008, 2009, 2010	658,122	(6–8)	I am safe in my classes.	15.1 Academic achievement, Victimization, Race/Ethnicity, Gender, SES, Special education
Lorenzo 2016, USA	2005, 2006, 2007	1,919	(9–11)	6 items (e.g., My school is a safe and protected place.)	No prevalence data available Race/Ethnicity, Gender, Mental health problems, Victimization, Discrimination, Substance use
Perumean-Chaney 2013, USA	1995, 1996	13,386	(7–12)	You feel safe in your school.	No prevalence data available Race/Ethnicity, Gender, Victimization, Academic achievement, Security measures, School environment
Cross-national study					
Bear 2018, USA, China	NR	7,261	(3–5, 7–8, 10–12)	3 items (e.g., Students are safe in the hallways.)	USA > China Age
Meyer 2018, Rwanda, Uganda	2015 (Rwanda), 2016 (Uganda)	274 (Rwanda), 763 (Uganda)	13-23	How much of the time do you feel safe at school?	29.7 (Rwanda), 16.6 (Uganda) Victimization
Salle 2021, 14 countries, regions, and territories[b]	NR	34,923	(5-12)	The Georgia School Climate Survey including school safety	Jamaica, Puerto Rico > Greece, Italy, Lithuania, Russia Mental health problems

Author, publication year, country	Data collection	N	Age (grades)	Measure	Prevalence of feeling unsafe (%), associated factors
Zhang 2023, Japan, Russia	2011 (Japan) 2015 to 2018 (Russia)	3,682	M=13.9 in Japan, M=14.6 in Russia	4 items (e.g., I feel safe at school.)	Japan > Russia Mental health problems

[a] Districts that participated at least 2 years of data collection between 2009 and 2019 were included. [b] Belgium, Germany, Greece, Hungary, Italy, Jamaica, Latvia (Latvian- and Russian-speaking communities), Lithuania, Malta, Puerto Rico, Russia, Slovakia, and the US. NR = Not reported, SES = Socioeconomic status.

3.2 Help-seeking behavior for mental health problems

Key messages

- Help-seeking behavior is an adaptive coping process attempting to get external help for mental health issues; the source of help can be informal (family, peers, teachers) or formal (health or social professionals).
- Factors influencing help-seeking behavior include stigma, mental health literacy, costs and service availability, severity of emotional suffering, and burden perceived by parents.
- Globally, over half of adolescents facing mental health problems do not receive mental health care.
- Most studies on adolescent mental health help-seeking have only focused on formal help in a single country. There is a lack of cross-national studies examining both informal and formal sources of help.

3.2.1 Definition of help-seeking behavior

Help-seeking behavior is an adaptive coping process involving seeking external assistance for mental health issues (Rickwood & Thomas, 2012). This behavior can include seeking help from formal sources of help (health or social professionals) or informal sources of help (family, peers, teachers). The pathway starts with problem recognition, followed by the consideration and decision to seek help (Srebnik et al., 1996; Zwaanswijk et al., 2005).

3.2.2 Factors associated with help-seeking behavior among adolescents

Previous reviews have identified several factors influencing help-seeking behavior for mental health among adolescents. Stigma surrounding mental health issues, poor mental health literacy, and feelings of embarrassment can prevent adolescents from seeking help due to fear of judgment or discrimination (Velasco et al., 2020). In addition, systemic issues, such as costs and service availability, often hinder adolescents from seeking help (Radez et al., 2021). On the other hand, adolescents are more likely to seek help if they experience severe emotional symptoms and if

their parents perceive the burden caused by mental health problems (Angold et al., 1998; Gulliver et al., 2010). Understanding mental health issues and available resources plays a crucial role in help-seeking behavior, as adolescents with higher mental health literacy are more likely to seek appropriate support (Eigenhuis et al., 2021). Supportive relationships with peers, family, or teachers can positively influence help-seeking behavior by providing encouragement and understanding (Häggström et al., 2022). There are gender differences in help-seeking among young people. Boys are more likely to ask for help from those they trust (friends and parents) and adopt self-reliance as preferred strategy (Bosco et al., 2020). On the other hand, girls are more likely to report that they would talk to mental health professionals (Liddon et al., 2018). Traditional masculine norms, such as the expectation to be strong and in control, negatively affect help-seeking behavior among boys (Addis & Mahalik, 2003; Vogel et al., 2011).

3.2.3 Unmet need in mental health care

The definition of unmet need for mental health care can vary across studies. Traditionally, and generally, this concept refers to the absence of formal care for people with mental health problems, although it can also be considered as the absence of both informal and formal mental health care (Alonso et al., 2007; Ghafari et al., 2022; Rens et al., 2020). Reviews have consistently reported low help-seeking behavior among adolescents even in high-income countries with relatively accessible services (Radez et al., 2021; Velasco et al., 2020). Unmet need in formal mental health care is high, especially in low-income and middle-income countries (Kieling et al., 2011). A considerable number of adolescents facing mental health problems do not receive any mental health services (Finkelhor et al., 2021; Islam et al., 2020). Among adolescents with mental health problems or a perceived need for mental health services, the proportion of those with unmet need typically ranges from 60% to 80% (Gorfinkel et al., 2023; Jansen et al., 2013; Kataoka et al., 2002; Mansbach-Kleinfeld et al., 2010; Novins et al., 2000; Thomas et al., 2011). Zwaanswijk et al. (2003) found a high proportion of high-risk adolescents with unmet need in the Netherlands, with 92.3% of them having not been referred to mental health services. Research indicates that older adolescents, sexual and racial minority youth, those lacking close family members, and those with severe mental health problems are more likely to have unmet need (Bean et al., 2006; Gorfinkel et al., 2023; Williams & Chapman, 2012). The most common formal source of support was family doctors or pediatricians (Gorfinkel et al., 2023). A meta-analysis including both clinical and general population studies found that, globally, over half of adolescents experience unmet mental health care needs (Ghafari et al., 2022). Similar patterns are observed in the adult population (Demyttenaere et al., 2004).

The findings highlight the significant gap in addressing the mental health needs of adolescents, indicating the importance of enhancing access to formal mental health care services for adolescents.

3.2.4 Previous cross-national studies on adolescent help-seeking behavior

Previous research has reported that there are cultural differences in help-seeking behavior. For instance, a greater reluctance to seek formal help has been observed in East Asian societies compared to Westen societies (Kim et al., 2010; Mojaverian et al., 2012). This reluctance may reflect East Asian cultural norms, where a person may prefer solving problems individually rather than be burden to the social network with personal problems (Taylor et al., 2004). However, the East-West dichotomic comparison has faced criticism for oversimplifying cultural differences, as it tends to overlook the multifaceted nature of cultural differences in help-seeking behavior (Zheng et al., 2021). Kovess-Masfety's study (2017) examined the unmet need of children, not specifically adolescents, across the Netherlands, Italy, Germany, Lithuania, Bulgaria, Romania, and Turkey and revealed that 74.4% of children with mental disorders did not receive formal mental health services. Notably, the level of unmet need varied between countries with it being lower in countries with high mental health specialist ratios per population size, while higher in low-ratio countries. The majority of studies examining help-seeking behavior among adolescents primarily concentrate on formal help. There is a lack of cross-national research among adolescents focused on their tendencies to seek help and the sources they turn to, considering both informal and formal sources. It is important to examine informal sources, such as friends and family, because these sources often serve as the first agents in the process of help-seeking and play a central role especially for young people in lower-income countries (Lynch et al., 2023). Previous studies on the unmet need in mental health care among the general population of adolescents are shown in Table 3.

Table 3. Studies on unmet need in mental health care among the general population of adolescents.

Author, year, country	Data collection	N, (age)	Measure	Definition of unmet need	Adolescents with unmet need, %
Bean 2006, Netherlands	2002	920[a], (12–18)	• The Hopkins Symptom Checklist for Adolescents • The self-perceived need for mental health services (interview)	Self-reported perceived need for mental health service, but not having obtained it	48.7% Adolescents with unmet need were more likely to be older, have no family member close by, and have high internalizing problems.
Gorfinkel 2023, Canada	2021	1,928 (M=17)	• Youth Development Instrument • Patient Health Questionnaire 8: ≥ 10 cut-off score • Generalized Anxiety Disorder Questionnaire 2: ≥ 3 cut-off score	Self-report unmet mental health care need	41% of the total sample 70% of adolescents with depression of anxiety The most common source of support was family doctors or pediatricians (23.1%). Adolescents with unmet need were more likely to be girls, gender and sexual minorities, and have depression and anxiety.
Jansen 2013, Netherlands	NR	1,406 (16–17)	• Parent-reported need for mental health care • Self-reported mental health care utilization	The absence of treatment among those with need for help (parent-report)	71%
Kataoka 2002, USA	1997	2,329 (12–17)	• The Community Tracking Survey • Child Behavior Checklist (CBCL)	The absence of mental health services among children with high levels of mental health problems (Mental Health Indicator based on CBCL score ≥3)	77%

Author, year, country	Data collection	N, (age)	Measure	Definition of unmet need	Adolescents with unmet need, %
Mansbach-Kleinfeld 2010, Israel	2004–2005	957 (14–17)	• The Development and Well-Being Assessment inventory • The use of services in the 12 months (interview)	The adolescents with mental disorders but their mothers did not seek help from either formal or informal service providers	66% (self-report), 60% (mother-report)
Novins 2000, USA	1991	109 (13–18)	• Self-report service use • Diagnostic Interview Schedule for Children (DISC2.1C)	The absence of mental health service use among those with mental disorders	61%
Sheppard 2018, Australia	2014	1,559 (M=18)	• General Health Questionnaire – 12 (GHQ-12): cut-off point was 13 for boys and 18 for girls • Perceived Need for Care Questionnaire • General Help Seeking Questionnaire	• Any unmet need: the absence of any counselling among adolescents with GHQ-12 above the cut-off and perceived need • Wholly unmet need: the absence of any counselling or consultation with any professionals among adolescents with GHQ-12 above the cut-off	38.7% (any unmet need) 25.9% (wholly unmet need)
Thomas 2011, USA	2008	1,694 (13–19)	• Center for Epidemiologic Studies Depression Scale (CES-D) • Self-reported mental health service use	The absence of received mental health service among those scoring above 16 points on CES-D	79.4% (girls) 77.6% (boys) Minority adolescents were less likely to use mental health care than their White counterparts.

Author, year, country	Data collection	N, (age)	Measure	Definition of unmet need	Adolescents with unmet need, %
Williams 2012, USA	1995	18,844 (11–21)	• Self-reported mental health symptoms or traumatic life events • Self-reported health service use	Youth with mental health symptoms or traumatic experiences without receiving mental health services	38.7% Sexual and racial minority youth, older adolescents, and boys had higher odds of having unmet need.
Zwaanswijk 2003, Netherlands	1993	1,120 (11–18)	• Youth Self-Report (YSR): score of 60 as the cutoff point for high-risk populations. • Current Demographic and Help-Seeking Features Interview	The absence of reference for mental health services among those with mental health problems Adolescent self-reporting of a need for formal help without having obtained it	92.3% of youth scoring the deviant range of the YSR score and 93.6% of youth perceiving themselves as having behavioral or emotional problems, had not been referred for mental health services. 3.8% (self-perceived unmet need)
CROSS-NATIONAL STUDY					
Kovess-Masfety 2017, Netherlands, Italy, Germany, Lithuania, Bulgaria, Romania, and Turkey	2010	4,867 (612)	• Parent and child's teacher reported Strengths and Difficulties Questionnaire • Use of mental health services	The absence of received mental health services in the previous 12 months among children with a mental disorder	74.4% (68.5% in countries with high ratios of mental health specialists per population size and 81.1% in low-ratio countries)

[a] Unaccompanied refugee adolescents. M = mean, NR = Not reported.

3.3 Cyberbullying victimization and suicide attempt

Key messages

- Cyberbullying is a form of bullying that occurs through electronic means, and the prevalence rates of cyberbullying victimization range from 14.0% to 57.5% among adolescents and children.
- A suicide attempt is a nonfatal, self-directed behavior with an intent to die, potentially resulting in serious injuries or permanent damage, and 5% to 16% of young people globally report suicide attempts.
- Both victim and perpetrators of cyberbullying are at high risk of suicide attempt.
- There is a lack of global comparisons on cyberbullying and suicide attempts among adolescents, especially in low-income and middle-income countries.

3.3.1 Definition and prevalence of cyberbullying

Bullying, as commonly defined, involves repetition, intentional harm, and an imbalance of power, where those with more power repeatedly inflict aggressive acts on others (Olweus, 1995). Traditional bullying, including physical, verbal, and relational forms, has been characterized by these criteria. More recently, a new type of bullying, known as cyberbullying, has emerged. It is defined as "willful and repeated harm, by a person or a group, inflicted using computers, cell phones, and other electronic devices, aimed against a victim who cannot easily defend him or herself" (Smith et al., 2008). Cyberbullying introduces unique aspects that are not relevant to traditional bullying. Anonymity shields both the bully's identity and the victim's reactions, potentially diminishing empathy. Cyberbullying can take place anytime and anywhere, and harmful content in cyberspace can spread uncontrollably, amplifying its impact.

Research has shown that many adolescents have been involved in bullying. A meta-analysis of 80 studies found the prevalence rates among adolescents (12–18 years old) for cyber and traditional bullying victimization were 15% and 36%, respectively (Modecki et al., 2014). A similar prevalence was found for perpetration with 16% and 35% of adolescents, respectively, having bullied others. More recently, a cross-national study of 12- to 17-year-olds in 83 countries based on the GSHS revealed that 30.5% of adolescents globally had been bullied in the past month

(Biswas et al., 2020). The lowest prevalence of bullying victimization was found in Europe while the highest prevalence was observed in the Eastern Mediterranean regions and African region. A review by Zhu (2021) specifically focused on the global prevalence of cyberbullying among adolescents and children and reported the prevalence of perpetration (6.0 to 46.3%) and the prevalence of victimization (14.0 to 57.5%). Importantly, the study also observed an increasing rate of cyberbullying in the observed 5-year period and that research from low- and middle-income countries was lacking.

3.3.2 Definition and prevalence of suicide attempt

A suicide attempt is a nonfatal, self-directed, potentially injurious behavior with an intent to die, even if it does not result in injury (Crosby et al., 2011). The outcomes of suicide attempt can lead to serious injuries, permanent disabilities, and organ damage. Suicide attempt often stems from suicidal ideation, which involves persistent thoughts about wanting to die (Posner et al., 2007). Adolescents may cause physical harm to themselves as a way to cope with overwhelming emotions or to escape feelings of emptiness without suicidal intent (nonsuicidal self-injury) (Klonsky et al., 2014). Intentional self-inflicted damage to one's body surface, regardless of suicidal intent is known as direct self-injurious behaviors (Brunner et al., 2014). The presence of self-harm behaviors is linked with higher risk for future suicide behaviors and complete suicide (Ribeiro et al., 2016). The most common methods of complete suicide in adolescents include poisoning, hanging, jumping from a height, railway-suicides, and firearms (Hepp et al., 2012). Research indicates that interpersonal issues are the most common motivation for suicide attempt among adolescents (Hawton et al., 2012; Lee et al., 2019). Repetition of nonfatal attempts significantly predicts eventual suicide (Tejedor et al., 1999). Historically, attempted suicide was criminally punishable, but it is no longer illegal in most Western countries. Some countries still prosecute suicide attempt, reflecting a complex legal system surrounding suicidality. This can lead to under-reporting and misclassification of suicidal behavior.

It has been estimated that 45,800 adolescents die from suicide every year—about 1 every 11 minutes (United Nations International Children's Emergency Fund, 2021). The actual count of suicide deaths might be greater because some of these deaths may have been misclassified as "accidental." A significant rise in both suicide attempt and completed suicides was observed among American young people over the past decade (Burstein et al., 2019). According to a recent meta-analysis, globally, between 5% to 16% of young people reported suicide attempt and the highest rates were observed in the South Pacific Islands and South America regions (Van Meter et al., 2023). The risk for suicide attempt increases as adolescents age and research

consistently reports higher rates of suicide attempt among girls than boys. Suicide affects adolescents across various backgrounds, with certain groups, such as sexual minorities, reporting higher rates than others (Miranda-Mendizábal et al., 2017).

3.3.3 Cyberbullying victimization as a risk factor for suicide attempt

Cyberbullying has been extensively studied in relation to its impact on adolescents' mental health, particularly its association with suicidal thoughts and attempts (Bottino et al., 2015; Klomek et al., 2010). Multiple research findings consistently highlight the concerning link between cyberbullying victimization and an increased risk of suicide attempt among young people (Islam et al., 2020; Klomek et al., 2008; Sampasa-Kanyinga et al., 2018; Wang et al., 2023). Moreover, young people who were perpetrators of cyberbullying were also more likely to attempt suicide than those who had not been involved in such forms of peer aggression (Bauman et al., 2013; Hinduja & Patchin, 2010). The highest risk was found among victims of both cyber- and traditional bullying (Azami & Taremian, 2020; Duong & Bradshaw, 2014; Peng et al., 2019). Some studies suggest that cyberbullying victims have a higher risk for psychological distress than victims of traditional bullying (Han et al., 2018; Schneider et al., 2012). Moreover, findings from a meta-analysis suggest that cyberbullying could have a stronger effect on suicide attempt than traditional bullying (John et al., 2018). Longitudinal studies have also reported a link between cyberbullying and suicide attempt (Benatov et al., 2022; Romero et al., 2018), and cyber-perpetration predicted later suicide attempt (Benatov et al., 2022). A meta-analysis synthesized these studies and estimated that those who have experienced cybervictimization were over two times (OR 2.57, 95% CI 1.69–3.90) more likely to attempt suicide compared to non-victims (John et al., 2018). Research indicates that cyberbullying alone does not lead to suicide; instead, it amplifies the impact of daily struggles, stresses, and mental health problems among adolescents (Hinduja & Patchin, 2010). Finally, although previous research has largely focused on emotional symptoms as a mediator, not a moderator, in the association between bullying victimization and suicidal behavior, it has been suggested that it is also important to investigate the role of depression as a moderator in this association (Fredrick & Demaray, 2018). There are a limited number of studies examining the moderation effect of emotional symptoms on the association between bullying and suicidal behavior among youth (Kodish et al., 2016; Quintana-Orts et al., 2022).

3.3.4 Previous cross-national studies on the association between cyberbullying and suicide attempt

Although cyberbullying has been extensively studied in country-specific data, there is a lack of data and global comparisons regarding the prevalence of cyberbullying and suicide attempt in adolescents from low-income and middle-income countries (Barzilay et al., 2017). Conducting studies in low-income and middle-income countries is important due to their significant global population representation, with nearly 90% of adolescents living in low-income and middle-income countries. Moreover, nearly 90% of adolescents who die of suicide are from low- and middle-income countries (World Health Organization, 2021b). Cross-national studies on bullying and suicide attempt including low-income and middle-income countries are mainly based on the GSHS. The prevalence of suicide attempt among 13–15-year-olds has been found to vary across countries, with Samoa reporting the highest rates and Suriname (for boys) and Indonesia (for girls) reporting the lowest (Campisi et al., 2020). One cross-national study examined cyberbullying and its association with suicidal behavior among 15-year-olds in Israel, Lithuania, and Luxembourg based on data from the HBSC (Zaborskis et al., 2019). The findings revealed that 6.5% of the adolescents reported being cyberbullied, 9.5% had attempted suicide in the previous 12 months, and cyberbullying victims had a significantly higher risk of suicide attempt. A summary of previous studies on the association between cyberbullying and suicide attempt among adolescents is shown in Table 4.

Table 4. Studies on the association between cyberbullying and suicide attempt among adolescents.

Author, Year, Country	Data Collection	N, Age (Grades)	Measure	Result
Cross-sectional study				
Azami 2020, Iran	2019	400 M=16.6	• E-Victimization Scale (self-reported past two months cyberbullying) • Revised Olweus Bully/Victim Questionnaire (self-reported past two months traditional bullying) • Self-reported lifetime suicide attempt	• Cybervictimization was significantly associated with suicide attempt (OR = 2.74 [95% CI: 1.37–5.52]). • The highest risk was found among victims of both cyber- and traditional bullying (OR = 5.46 [95% CI: 2.53–11.77]).
Bauman 2013, USA	2009	1,491 (9–12)	Arizona Risk Behavior Survey (2009): Self-reported past 12 months bullying and suicide attempt	• Cybervictimization was not significantly associated with suicide attempt. Depression mediated the association only in females. • Cyberbullying perpetration was a significant predictor of suicide attempt only in males. There was no mediation effect on this association.
Duong 2014, USA	2009	951 (9–12)	YRBS: Self-reported past 12 months bullying and suicide attempt	• Cybervictimized sexual minority youth were three times (OR 3.07, 95% CI 1.39–6.79) more likely to have attempted suicide than nonvictimized youth. • The highest risk was found among victims of both cyber- and traditional bullying.
Elgar 2014, USA	2012	18,834 12–18	• Self-reported past 12 months suicide attempt, cyberbullying and traditional bullying (University of Illinois Aggression Scales)	• Cybervictimization was significantly associated with suicide attempt (OR=3.47).
Goebert 2011, USA	2007	677 (9–12)	• Self-report bullying • Self-reported past 12 months suicide attempt	• Cybervictimized youth were OR 3.22 (95% CI 1.82–5.70) times more likely to have attempted suicide than nonvictimized youth. • Cybervictimization was significantly associated with depression with OR=1.85 (95% CI 1.30–2.63).

Author, Year, Country	Data Collection	N, Age (Grades)	Measure	Result
Han 2018, China	2016	3,675 NR	• YRBS: Self-reported past 12 months suicide attempt • School Survey on Crime and Safety: self-reported past 12 months bullying	• Cybervictimized youth were OR 2.70 (95% CI 1.74–4.20) times more likely to have attempted suicide than nonvictimized youth. • Cybervictimization had a higher correlation with suicide attempt than traditional bullying victimization.
Hinduja 2010, USA	2007	1,963 M=12.8	• Self-reported past 12 months bullying • National Adolescent Student Health Survey: self-reported suicide attempt	• Suicide attempt was significantly associated with cybervictimization (OR=1.94), cyberbullying perpetration (OR=1.49), traditional victimization (OR=1.68), and traditional perpetration (OR=2.08).
Islam 2020, Australia	2013–14	2,166 12–17	• YRBS: Self-reported past 12 months suicide attempt • Olweus Bully–Victim Questionnaire: Self-reported past 12 months bullying	• Cybervictimization was significantly associated with suicide attempt.
Klomek 2008, USA	2002–2004	2,342 M=14.8	• Diagnostic Interview Schedule Children; self-reported lifetime and recent suicide attempt • Self-reported bullying based on WHO study (Nansel et al., 2001)	• Frequent cybervictimization was significantly associated with suicide attempt but not infrequent cybervictimization.
Kodish 2016, USA	NR	5,429 M=16.8	• Behavioral Health Screen: self-reported lifetime bullying • The lifetime suicide scale	• Cybervictimization was significantly associated with suicide attempt (coefficients of beta=.73).
Messias 2014, USA	2011	15,425 (9–12)	YRBS: Self-reported past 12 months bullying and suicide attempt	• Cybervictimization was significantly associated with suicide attempt (OR=3.60) and suicide attempt requiring treatment (OR=4.0). • Highest risk was found among victims of both cyber- and traditional bullying.

Author, Year, Country	Data Collection	N, Age (Grades)	Measure	Result
Newman 2023, USA	2018	70,451 (6,8,11)	Iowa Youth Survey: Self-reported past 12 months suicide attempt and lifetime bullying	• Cybervictimization was significantly associated with suicide attempt, but not with ideation.
Peng 2019, China	2016	2,647 M=13.6	Self-reported past 6 months bullying and lifetime suicide attempt	• The highest risk was found among victims of both cyber- and traditional bullying (OR=3.2), compared to those reporting one form of bullying.
Reed 2015, USA	2011	15,425 M=16.1	YRBSS: Self-reported past 12 months bullying and suicide attempt	• Cybervictimization and suicide attempt were mediated by violent behavior but cybervictimization was not associated with suicide attempt directly.
Roh, 2015, South Korea	2012	4,410 12–19	Self-reported past 12 months bullying and past three months suicide attempt	• Victims of nonphysical bullying (which included cyberbullying) were 3.28 (p <.001) times more likely to have attempted suicide.
Romero 2013, USA	2009	650 (9–12)	Arizona Youth Risk Behavior Survey: Self-reported past 12 months bullying	• Cyberbullying perpetration and victimization were not significantly associated with suicide attempt among adolescent Latina girls.
Sampasa-Kanyinga 2014, Canada	2011	2,999 M=14.3	YRBS: Self-reported past 12 months bullying and suicide attempt	• Cybervictimization was significantly associated with suicide attempt (OR=1.73 [95% CI 1.26–2.38]) compared with nonvictims.
Sampasa-Kanyinga 2020, Canada	2013	5,478 (11–20)	YRBS: Self-reported past 12 months bullying and suicide attempt	• Cybervictimization was significantly associated with suicide attempt (OR= 2.07 [95% CI 1.27–3.38]) compared with nonvictims.
Schneider 2012, USA	2008	20,406 (912)	YRBS: Self-reported past 12 months bullying and suicide attempt	• Cybervictimization was significantly associated with suicide attempt (OR 5.00 [95% CI 3.73-6.71]) and suicide attempt requiring treatment (OR 5.36 [95% CI 3.28–8.75]) compared with nonvictims.
Sinclair 2012, USA	2009	17,366 2009	Dane County Youth Assessment: Self-reported past 12 months bullying and suicide attempt	• Nonbiased cybervictimization (OR=2.95) and biased-based cybervictimization were both significantly associated with suicide attempt (OR=4.75).

Author, Year, Country	Data Collection	N, Age (Grades)	Measure	Result
Singh 2021, USA	2015	15,506 (9–12)	YRBS: Self-reported past 12 months bullying and suicide attempt	• Cybervictimization was significantly associated with suicide attempt.
Wang 2023, china	2022	27,030 M=15.7	YRBS and GSHS: Self-reported past one month bullying and 12 months suicide attempt	• Cybervictimization was significantly associated with suicide attempt (OR 2.83 [95% CI 2.08–3.84]).
Longitudinal study				
BENAtov 2022, Israel	2017, 2018	2,150 M=15.4	• Paykel Suicide Scale: Self-reported past two weeks suicide attempt • Self-reported past six months bullying	• Cyberbullying perpetrators were OR = 2.64 times more likely to have attempted suicide than noninvolved adolescents, even after adjusting for baseline depression, hostility, and traditional bullying in longitudinal data.
Romero 2018, USA	2005–2015 (annually)	13,378 (9–12)	YRBSS: Self-reported past 12 months bullying and suicide attempt	• Cybervictimization was significantly associated with suicide attempt (OR=2.1 for boys, OR=2.3 for girls).
Cross-national study				
Zaborskis 2019, Israel, Lithuania and Luxembourg	2013–14	3,814 15	HBSC: Self-reported past couple of months bullying and past 12 months suicide attempt	• The prevalence of cybervictimization was 6.3% (Israel), 7.8% (Lithuania), and 4.5% (Luxembourg). The prevalence of suicide attempt was 6.8% (Israel), 12.0% (Lithuania), and 8.6% (Luxembourg). • Cybervictimization was significantly associated with suicide attempt in all countries. • Cybervictimization has a greater impact on suicide attempt than traditional bullying in Lithuania and Luxembourg while both types of victimization had almost the same level of impact on suicide attempt in Israel.

YRBS = Youth Risk Behavior Survey, YRBSS = Youth Risk Behavior Surveillance System, GSHS = Global School-based Student Health Survey, HBSC = Health Behaviour in School-aged Children, WHO = The World Health Organization, M = mean, NR = Not reported.

3.4 Gaps in previous research

There are significant limitations in existing studies. First, global estimates of mental health problems are largely derived from literature reviews synthesizing the results of isolated studies from high-income Western countries rather than cross-national epidemiological surveys. Thus, cultural representation is limited and there are possible biases and methodological limitations, which can affect the accuracy and reliability of global estimates. Second, the literature lacks cross-cultural epidemiological studies aiming to identify milder or sub-clinical mental health problems among adolescents, such as perceived school safety, help-seeking behavior for mental health problems, and cyberbullying. Such studies are crucial for an accurate assessment of the global mental health problem and public health program planning. Third, there is a lack of systematic literature reviews providing a comprehensive overview of previous studies on perceived school safety among adolescents. Fourth, previous studies on perceived school safety across different countries are limited, and most studies have only looked at two countries at a time to compare how safe students feel. Fifth, nearly 90% of children and adolescents live in low- and middle-income countries, but most previous research on help-seeking behavior comes from a few high-income Western countries. Although informal sources of help such as family and friends are often the first places young people turn to, previous studies on help-seeking behavior mostly focus on formal sources like doctors and therapists in Western countries. Lastly, there is a lack of cross-national studies examining the correlation between cyberbullying and suicide attempt as well as the moderating effect of emotional symptoms on the association including low- and middle-income countries.

4 Aims

The main objective of this thesis is to broaden the knowledge of mental health problems and related behavior among adolescents with a specific focus on perceived school safety, help-seeking behavior for mental health problems, cyberbullying, and suicide attempt in a cross-national context. The aims in more detail are:

1. To review the existing literature on prevalence and factors associated with feeling unsafe among adolescents (Study I).
2. To examine the prevalence and associated factors of adolescents feeling unsafe at school in 13 Asian and European countries, as well as the probability of feeling unsafe in different schools in each country (Study II).

   The hypothesis based on the literature was that a significant difference in perceived school safety would be found between and within countries and that factors such as being bullied as well as emotional and behavioral problems would be found to be associated with feeling unsafe at school.
3. To study how the formal and informal help-seeking behavior for mental health problems among adolescents differs by country and gender in eight Asian and European countries. The aim was also to examine the unmet need for formal mental health help in different countries (Study III).

   The hypothesis was that there would be limited help-seeking behavior from formal sources and that adolescents would have a high level of unmet need for their mental health.
4. To investigate the prevalence of and associations between cyberbullying and suicide attempt among adolescents in six Asian and European countries. The aim was also to examine the moderating effect of emotional symptoms on the association between cyberbullying and suicide attempt (Study IV).

   The hypothesis for this study was that the association between cyberbullying and suicide attempt would be found to differ between the countries, and the emotional symptoms would be found as moderators of the association between cyberbullying and suicide attempt.

5 Materials and Methods

5.1 Systematic review on perceived school safety (Study I)

The first study was a systematic review on the prevalence of and factors associated with feeling unsafe among adolescents. It was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Liberati et al., 2009; Moher et al., 2009; Shamseer et al., 2015) and the Synthesis Without Meta-analysis guidelines (Campbell et al., 2020). The protocol of the present systematic literature review was registered in the International Prospective Register of Systematic Reviews (PROSPERO) on 1 March 2020 and was last updated on 17 August 2020 (registration number CRD42020171435).

A thorough literature search was performed on PROSPERO to ensure the absence of existing systematic literature reviews or ongoing reviews on perceived safety of children and adolescents in schools. The search strings for this review were formulated using the population, intervention, control, and outcomes criteria approach (Liberati et al., 2009). The study focused on children and adolescents enrolled in schools as the population, with schools as the intervention and students' perceived school safety as the outcome. The aim was to explore students' perceptions of safety within the school environment, not to compare it with the perceptions of those who were absent from school. Therefore, a comparison group was irrelevant in this review.

The literature search was conducted from 30 January to 5 February 2020, and it was last updated on 9 February 2021 to include recently published papers. Five electronic databases (PubMed, Web of Science, ERIC, PsycINFO, and CINAHL) were selected for their relevance to mental health and education. A combination of keyword and subject heading searches was used. Search terms for children and adolescents, including *children*, *adolescents*, *teen*, *preteen*, and *youth*, were combined with terms related to school safety. Additionally, further literature was identified by screening the reference lists of all included studies to ensure the inclusion of potentially relevant studies (Greenhalgh & Peacock, 2005).

Two researchers independently screened titles and abstracts of literature obtained through searches, excluding those without an abstract or full text. All records were

entered into RefWorks (Ex Libris Ltd., Jerusalem, Israel). Inclusion and exclusion criteria were applied to identify appropriate studies that provided information on perceived school safety. The review focused on peer-reviewed, English-language papers in scientific journals, excluding case reports, conference abstracts, book chapters, randomized control trial registers, and unpublished records. No geographical restrictions were applied in the search. Quantitative studies were included, examining the general population of children and adolescents in school settings (elementary to high school). Individuals over 18 years old, such as college/university students, were excluded. Studies involving teachers and parents were included only if results were separately reported for children and adolescents. Studies on safety outside schools were excluded.

The primary outcome was students' perceived safety at school. This review included studies discussing perceived school safety as an aspect of the school climate only if the results were reported separately. The quality assessment was conducted using the Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (National Institutes of Health/National Heart, 2014).

The data extraction was conducted by one researcher using Microsoft Excel 2010 for Windows (Microsoft Corp, Redmond, WA, USA), and the accuracy of extraction was checked and verified by another researcher. The following information was extracted: first author, publication year, country, participants, response rate, age range, measures, responses, data collection year, research design, setting, estimated school safety prevalence, and associated factors. If there were any disagreements between the two researchers, they were resolved through consulting a third researcher.

The study aimed for a narrative synthesis of findings, not a meta-analysis. Because there was variation between studies in how perceived school safety was measured, to the results synthesization process was decided upon beforehand. For example, in studies using a four-point Likert scale, the prevalence was divided into *feeling safe* (agree, strongly agree) and *feeling unsafe* (disagree, strongly disagree). Associated factors were organized following Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1978, 1989): the child's immediate environment, interrelations between the different environments that surround them, and environments that the child does not actively participate in.

5.2 Cross-national studies (Studies II–IV)

5.2.1 Study design: The Eurasian Child Mental Health Study

Data for this research were collected as part of the Eurasian Child Mental Health Study (EACMHS), a comprehensive school-based cross-national epidemiological

study on the well-being and mental health of children and adolescents (Sourander et al., 2018). EACMHS is a cross-sectional study employing a standardized methodology across its participating 13 Asian and European countries: China, Finland, Greece, India, Indonesia, Iran, Israel, Japan, Lithuania, Norway, Russia, Singapore, and Vietnam (Figure 1). In the present study, Israel is categorized as part of the European Region following the country categorization by the WHO based on their health systems and policy frameworks (World Health Organization, 2024). Members of the EACMHS network include mental health professionals for children and adolescents in the participating countries. The collaboration was led and coordinated by Finland (the Research Center for Child Psychiatry, University of Turku) with Professor André Sourander in lead.

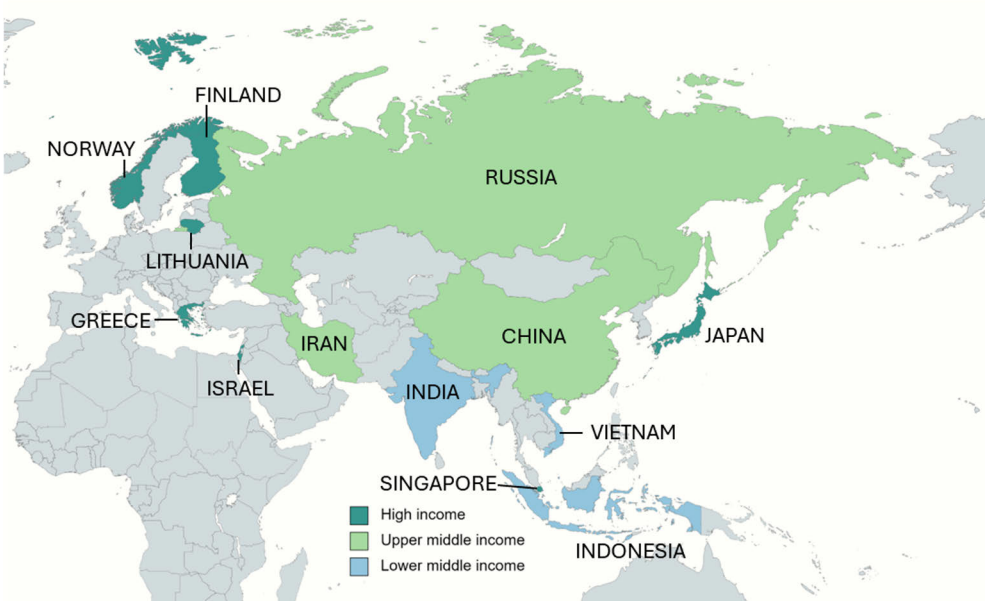

Figure 1. Global distribution of the study's participating countries.

5.2.2 Overview/characteristics of the 13 participating countries

The study includes countries with diverse income levels, as classified by the World Bank (World Bank, 2024). At the time of the study, Finland, Norway, Lithuania, Greece, Japan, and Singapore were high income countries; China, Iran, and Russia were upper-middle income countries; and India, Indonesia, and Vietnam were lower-middle income countries. Adolescent mental health services vary significantly across the participating countries in terms of accessibility, resources, and approaches.

Finland and Norway offer accessible and free mental health services for adolescents, supported by school-based programs and a high ratio of mental health workers per population (Kivimäki et al., 2019; Sommar, 2016; World Health Organization, 2018). Greece, Israel, Japan, Lithuania, Russia, and Singapore also prioritize accessibility, with various community-based and school-focused initiatives (Karagianni, 2016; Lim et al., 2015; Neznanov & Vasileva, 2015; Nishio, 2022; Sterne & Porter, 2013; Wijker et al., 2022; World Health Organization, 2018). While efforts are being made to ensure broader accessibility of mental health support, China, India, Indonesia, Iran, and Vietnam face challenges with limited resources and regional disparities in accessibility (Kusumawardani et al., 2023; Mehra et al., 2022; Sharifi et al., 2016; UNICEF Viet Nam, 2018; Wang et al., 2020; World Health Organization, 2018). For example, according to a cross-national comparison from 2018, the ratio of child and adolescent psychiatrists per 100,000 children is significantly limited in China (0.09), India (0.02), Indonesia (0.07), and Vietnam (0.00), while Norway and Finland have the highest ratios, with 47.74 and 45.40 respectively, followed by Greece (22.24), Lithuania (13.77), and Israel (11.29) (Sourander et al., 2018). In lower-income countries, mental health services are largely inadequate, and this shortage is particularly acute in remote areas (World Health Organization, 2021a).

5.2.3 Questionnaire and procedure

The study was conducted using a self-administered survey, which was based on a questionnaire previously used with adolescents in Finland (Sourander et al., 2012). The questionnaire included the same mandatory measures across countries for a robust cross-national comparison of study findings. It also included optional survey items that countries could choose depending on the national importance of the questions and ethical approval requirements. The questionnaires underwent a back-translation procedure to ensure that the intended meaning of each item was maintained across countries (Brislin, 1970). The procedure involved translating a questionnaire from English to the local language and then translating it back to English by a different translator. Any inconsistencies in the two translations were controlled by the country's team. All students who were present on the day of the data collection were invited to complete an anonymous questionnaire during a school lesson. Students were told that participation was voluntary and that their responses were confidential. In 11 countries, teachers facilitated the collection of paper questionnaires, which were then returned to the researchers. In Norway and Singapore, the data collection process was conducted using an electronic questionnaire during school hours.

5.2.4 Sample

The original total sample comprised 28,427 adolescents in the 13 countries, and the sample size from each country ranged from 1,118 in Vietnam to 3,837 in Lithuania. Data collection took place between 2011 and 2017. Convenience sampling method was chosen for the selection of schools due to substantial time and budget limitations. Researchers from each country selected a mixture of rural and urban and public and privately funded schools. The aim was to select schools that represented the diversity of the education system in each participating country, considering factors like urban/rural distribution and socioeconomic status. The median response rate was 88.9% and varied from 51.7% in Indonesia to 97.1% in Iran. Because there were variations in the age ranges in the total sample across countries, the studies focused on adolescents aged 13–15 years to make the data more comparable. After the age restriction, a total of 21,688 adolescents (50.8% girls) from 205 schools were included. There was some variation in the available data between countries. Therefore, the final sample sizes for each study varied.

For Study II, the item on perceived school safety was available in all 13 countries. Thus, the final sample size was 21,688 adolescents (50.8% girls). Total sample sizes varied, with the smallest being in Vietnam (946) and the largest in Finland (2,982). The proportion of girls in the samples ranged from 47.3% in Iran to 54.7% in Israel, and significantly higher percentages of girls compared to boys were found in Greece (53.5%) and Israel. The mean age across countries ranged from 13.5 years in Indonesia to 14.3 years in Iran. The study included schools from both urban and rural areas in many countries, while all participating schools were located in urban areas in Indonesia, Iran, Israel, Russia, Singapore, and Vietnam. The majority of adolescents were from public schools in all countries except India, where 88% of them were from private schools.

Study III included 13,184 adolescents (51.0% girls) from eight Asian and European countries (Norway, Finland, Greece, Israel, Japan, India, Vietnam, and China) with comparable data on help-seeking behavior. Five countries from the original sample were excluded because they did not include questions on help-seeking behavior in their questionnaires, or the questions were significantly different from those of the other countries. The sample size varied from 920 in Vietnam to 2,946 in Finland. The proportion of girls in the samples ranged from 49.3% in China to 54.1% in Israel, and significantly higher percentages of girls were found in Greece (53.4%) and Israel. The mean age across countries ranged from 13.6 years in India and Greece to 14.1 years in Finland. The study included schools from both urban and rural areas in China and Japan, while most participating schools were located in urban areas in other countries. The majority of adolescents were from public schools in all countries except India, where 88% of them were from private schools.

Study IV examined a subset of 9,892 adolescents (51.9% girls) from five Asian countries and one European country (Singapore, China, Iran, Indonesia, India, and Lithuania) with comparable data on bullying and suicide attempt. Eight countries from the original sample were excluded because they did not include questions on bullying and suicide attempt in their questionnaires, or the questions were significantly altered due to their sensitive nature. The sample size ranged from 545 in Iran to 2,453 in Lithuania. The proportion of girls in the samples ranged from 49.3% in China to 67.0% in Iran, and significantly higher percentages of girls were found in Iran and the total sample (51.9%). The mean age across countries ranged from 13.5 in Indonesia to 14.1 years in Lithuania and Iran. The study included schools from both urban and rural areas in Lithuania, China, and India, while all participating schools were located in urban areas in Singapore, Iran, and Indonesia. The majority of adolescents were from public schools in all countries except India, where 88% of them were from private schools.

Figure 2 shows a detailed flowchart of the study participants for each study. The characteristics of the total sample and the subsample included in Studies II–IV are presented in Table 5.

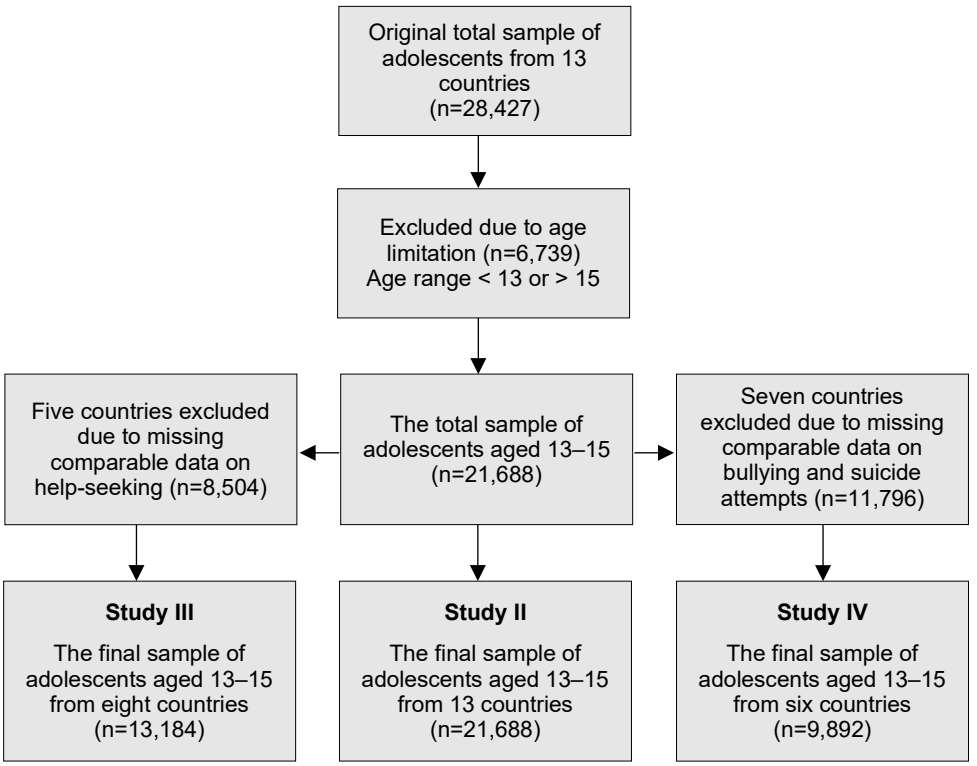

Figure 2. Flowchart of the study participants.

Table 5. Characteristics of the total sample and the subsample included in Studies II–IV from the Eurasian Child Mental Health Study.

Country	Original sample				Subsample of adolescents aged 13 to 15											
					STUDY II				STUDY III				STUDY IV			
	Sample	Year	Response rate	Schools	Sample[a]	Girl	Age	Urban (Public)	Sample[a]	Girl	Age	Urban (Public)	Sample[a]	Girl	Age	Urban (Public)
	n		%	*n*	*n*	%	mean	%	*n*	%	mean	%	*n*	%	mean	%
Finland	3,422	2014	91.9	13	2,982	50.1	14.1	89.9 (100)	2,946	50.2	14.1	90.0 (100)				
Greece	1,581	2016	~85	14	1,040	53.5*	13.6	72.1 (100)	1,028	53.4*	13.6	72.5 (100)				
Israel	2,188	2014	76.6	10	1,277	54.7*	14.0	100 (97.4)	1,023	54.1*	14.0	100 (100)				
Japan	1,842	2011	92.8	17	1,828	51.6	13.9	45.5 (100)	1,789	51.7	13.9	45.7 (100)				
Norway	2,019	2017	n/a	45	1,900	49.8	13.9	84.8 (99.4)	1,838	49.5	13.9	84.6 (99.4)				
Vietnam	1,118	2016	93.2	3	946	51.2	13.9	100 (100)	920	51.2	13.9	100 (100)				
China	2,659	2016	96.1	10	2,119	49.1	13.8	36.8 (79.9)	2,043	49.3	13.8	38.8 (78.6)	2,090	49.3	13.8	38.6 (78.7)
India	2,016	2016	93.9	11	1,672	51.7	13.6	84.9 (12.5)	1,597	51.9	13.6	85.0 (12.4)	1,627	52.2	13.6	84.9 (12.4)
Indonesia	1,390	2016	51.7	5	1,023	53.0	13.5	100 (64.1)					1,020	53.0	13.5	100 (64.2)
Iran	1,456	2016	97.1	16	1,178	47.3	14.3	100 (87.9)					545	67.0*	14.1	100 (78.7)
Lithuania	3,837	2016	81.0	17	2,507	50.1	14.1	53.8 (100)					2,453	50.6	14.1	53.9 (100)
Singapore	3,319	2014	85.8	24	2,165	50.9	14.0	100 (100)					2,157	51.0	14.0	100 (100)
Russia	1,580	2015	82.8	20	1,051	52.0	14.1	100 (100)								
Total	28,427	2011–2017	51.7–97.1	205	21,688	50.8	13.9	78.3 (88.6)	13,184	51.0	13.9	74.8 (85.9)	10,911	51.9*	13.9	75.6 (78.5)

* Statistically significant differences between girls and boys according to the chi-square test. [a] Sample size varied in Studies II–IV according to the available comparable data for the measures used in each study.

5.2.5 Measures

Perceived school safety (Study II) was measured using a single question: "I feel safe at school." The response options were "never," "sometimes," "often," and "always." Because of the very small frequency of the never category in some countries, such as Finland with only 2.2%, responses were combined into a binary outcome to make a valid cross-national comparison of study results. This involved grouping "never" and "sometimes" together, as well as "often" and "always."

Teacher care variable (Study II) was measured by a single item: "Teachers care about me." The possible response options were "never," "sometimes," "often," and "always." The answer was dichotomized by combining "never" and "sometimes" and, likewise, "often" and "always."

To assess **bullying victimization (**Studies II and IV), a definition of cyberbullying was provided to the students: "Repeated mocking on the Internet, bullying via emails or text messages or spreading insulting material about another person on the Internet." A comprehensive definition of traditional bullying was also provided: "A student is getting bullied, if another student or a group of students repeatedly treats him/her negatively or in an insulting manner. It is difficult for the bullied student to defend himself/herself. Bullying can be intermittent or continuous. Bullying can be verbal (e.g., calling names, threatening), physical (e.g., hitting, pushing) or psychological (e.g., spreading rumors, avoiding, excluding). Continuous nasty or insulting teasing is also bullying." Cyberbullying victimization was measured using a single question: "During the past six months, how often have you been cyberbullied?" The response options were "never," "less than once a week," "more than once a week," and "almost every day." Traditional bullying victimization was assessed by asking adolescents the following two questions: "How often have you been bullied in school in the past six months?" and "How often have you been bullied away from school in the past six months?" The response options were "never," "less than once a week," "more than once a week," and "most days." Responses were dichotomized into "no" for "never" and "yes" for other responses for all bullying questions. If an adolescent answered "yes" to either question about traditional bullying, they were considered to be traditional bullying victim, even if the other question was not answered. If an adolescent answered "no" to one question but left the other unanswered, it was marked as missing data regarding traditional bullying. These variables were combined to compare adolescents who were not being bullied, those who had experienced only traditional bullying, those who had experienced only cyberbullying, and those who had experienced both traditional and cyberbullying. In this four-category classification, if traditional bullying, cyberbullying, or both were missing from the responses, the item was considered to be missing data.

Emotional and behavioral difficulties (Studies II–IV) were measured by a self-report version of the Strengths and Difficulties Questionnaire (SDQ),

comprising 25 items, along with one impact supplement question. The SDQ consists of five subscales measuring emotional symptoms, conduct problems, hyperactivity, peer problems, and prosocial behavior, each containing five items (Goodman, 1997). The subscales for emotional and peer problems can be combined to produce the internalizing scale and the conduct problems and hyperactivity subscales produce the externalizing scale. The response option ranges from 0 ("not true") to 2 ("certainly true"). The total difficulties score (0–40) is generated by summing the scores from all the scales except the prosocial scale if the data in four subscales are available. We included adolescents who answered at least three items out of five in each subscale, and mean values were used to fill in missing values. In addition, perceived difficulties were measured by asking adolescents about overall difficulties in emotions, concentration, behavior, and social interactions as part of the SDQ impact supplement. Respondents could choose from four options: "no difficulties," "minor difficulties," "definite difficulties," or "severe difficulties," which were coded as no, mild, moderate, and severe difficulties, respectively. In Study II, these were combined into three categories: no versus mild versus moderate and severe.

Help-seeking behavior over the past six months (Study III) was assessed by two items. In the first question, the adolescents were asked if they had at any point felt the need for outside help (someone outside your immediate family) with emotions or behavior problems. Response options included "no, I have not felt the need" "I have considered getting outside help," and "I have sought outside help." The second question asked about the sources of help they used if they had sought help. Adolescents could choose more than one source from the following list of sources: relatives, teachers, school nurses, medical doctor, psychologists and counselors, or "someone else." These sources were categorized into informal (e.g., "relative," "teacher") and formal (e.g., "school nurse," "medical doctor," "psychologist or school counselor") help. The category "someone else" was open-ended, and adolescents reported various sources of help including siblings, significant others, and internet friends. Non-human sources of help such as pets and God were excluded. Two authors categorized the responses into informal and formal help seeking. Senior researchers onsite and, if needed, senior researchers in the participating countries were consulted in cases of disagreement. The most common "someone else" source was "friends" in most countries. Adolescents were categorized into those who perceived that they had no need for help, those who had considered seeking help, those who had received help from informal sources, and those who had received help from formal sources. The pooled percentage of those who had considered getting help, had sought informal help, or had sought formal help was calculated. Adolescents who had sought help from both informal and formal sources were categorized into the formal source group. However, in the

descriptive analysis for source of help, informal sources of help were included, even if the adolescent had also sought a formal source of help.

Suicide attempt (Study IV) was measured using the item "Have you tried to commit suicide?" The response options were binary in Iran, India, and Singapore, while a 3-point Likert scale was used in China and Lithuania. In the countries that used a 3-point Likert scale, responses were dichotomized: "no" for "no" or "never," and "yes" for the other options. Sociodemographic factors such as age, gender, geographic location of the school, and type of school were included. The adolescents' ages were subdivided into 13, 14, and 15 years of age. Gender was dichotomized into girls and boys.

5.2.6 Statistical analysis

For each study (II–IV), the responses from all included countries were pooled to create a descriptive analysis. The prevalence of outcome variables of each study was calculated by country for perceived school safety (Study II), bullying and suicide attempt (Study III), help-seeking behavior (Study IV). Statistical significance was set at $p < 0.05$, except in gender interaction analysis where $p < 0.1$ was considered significant. Associations were reported as odds ratios (ORs) with 95% confidence intervals (95% CIs). All the statistical analyses were performed using SAS 9.4 for Windows (SAS Institute Inc, Cary, NC, USA).

In **Study II**, analyses were conducted separately for girls and boys because there were significant interactions ($p < 0.1$) between gender and other explanatory variables (country, bullying victimization, SDQ, perceived difficulties, and teacher care) regarding perceived school safety. First, an unadjusted univariate logistic regression was performed to test the significance of the association between perceived school safety and the explanatory variables. Multivariate regression analyses were then performed and were adjusted for all of the explanatory variables. There were two models for the multivariate analyses because the perceived difficulties item was missing in Japan and Israel. In the first model (Model 1), adjustment was made for all the explanatory variables except perceived difficulties for all 13 countries. In the second model (Model 2), adjustment was made for all explanatory variables including perceived difficulties in 11 countries, excluding Japan and Israel. A logistic regression model was performed to estimate the probabilities of feeling unsafe in different schools in each country (Muller & Maclehose, 2014). The explanatory variable was school, and adjustment was made for age of the adolescents.

In **Study III**, mixed-effects multinomial logistic regression with school-wise random intercepts adjusted by country was conducted to examine the interaction between gender and the explanatory variables (age, SDQ externalizing, SDQ internalizing and perceived difficulties) regarding help-seeking behavior. A

significant interaction was found, and further analyses were conducted separately for girls and boys. In the present study, unmet need in mental health care is defined as the absence of support from health professionals among those with high emotional and behavioral difficulties. Unmet need was examined for each country by testing a lack of formal help among adolescents with SDQ total scores above the 90th percentile. The 90th percentile cut-off points were calculated based on the distribution of the SDQ total scores in each country sample, and these cut-off points were chosen because there is no normative data for all the study countries. The association between the SDQ total scores and perceived difficulties was examined in six countries with perceived difficulties item to validate the use of the SDQ total scores. The gender difference in the unmet need was assessed using a two-tailed Fisher's exact test. Country variations in unmet need were compared through mixed-effects logistic regression adjusted for age, using the country with the lowest unmet need as the reference category.

In **Study IV**, the results were reported for the total sample in each country because there were no significant interactions between gender and explanatory variables on suicide attempt. To examine the association between suicide attempt and different categories of bullying experience, generalized estimating equation (GEE) models were used with school-wise clusters in each country. In the multivariate analyses, adjustments were made for the age and gender of adolescents. The moderation effect of emotional symptoms on the association between bullying victimization and suicide attempt was examined using a GEE model with an interaction term adjusted for country, age, and gender. The odds ratio of suicide attempt was estimated with the categories of bullying victimization and the emotional symptoms scores. Indonesia was excluded from these models because no girls reported having been only cyber bullied during the previous six months among those who had attempted suicide.

5.2.7 Ethical considerations

The EACMHS network members received ethical approval from the institutional review boards of each participating country and obtained necessary permissions from the participating schools to conduct research. The students were informed that participation in the study was entirely voluntary, and they gave implied consent by filling out the questionnaire. All participation in the study was anonymous, and the confidentiality of participants was ensured. Written informed consent was obtained from the guardians of adolescents or school authorities following the policies in each country at the time of the survey. The investigations were carried out in accordance with the ethical regulations in the participating countries and the ethical standards from the 1964 Declaration of Helsinki and its later amendments.

6 Results

6.1 Systematic review on perceived school safety (Study I)

The literature search on five electronic databases yielded 1,121 records after removing the duplicates. Eight additional papers were identified through checking the reference lists of included studies. The title and abstract of 1,129 articles were screened, and finally 125 papers met the selection criteria for the full-text screening. After the full-text screening and quality appraisal, there were 43 eligible studies for reviewing. A flow diagram of the study selection process is shown in Figure 3. The inter-rater reliability of the screening and assessment process was assessed using Cohen's kappa and yielded high scores: 0.90 for study selection, 0.62 for quality assessment, and a perfect 1.00 for data extraction.

The included studies originated mostly from North America (34 papers); only one cross-national study was included. There were 40 cross-sectional studies and three longitudinal studies. The sample sizes varied from 542 to 159,630 and included children and adolescents in the 3rd to the 12th grade. While there was a specific time limit on the year of publications, relevant studies started to appear from 2004. Notably, 30 out of the 43 papers were published between 2016 and 2020.

All the studies on perceived school safety employed self-report measures, with 25 studies using a single item to measure whether they feel safe at school or not. The most common response option was a 4- or 5-point Likert scale. Quality assessment categorized 23 studies as good and 20 as fair quality, with selection bias being the most prevalent risk of bias, followed by unclear research questions and measurement bias.

The result of this systematic review is described among other recent literature in Chapter 2: Review of the Literature. The rate of children and adolescents who reported feeling unsafe at school varied widely from 6.1% in an American study to 69.1% in a Japanese study. Victimization experience seemed to increase the risk for feeling unsafe at school including school bullying and youth violence. Studies found that feeling unsafe at school is associated with an increased risk of mental health problems such as depression and suicidal behavior. There was a very limited number of cross-national studies available on this topic.

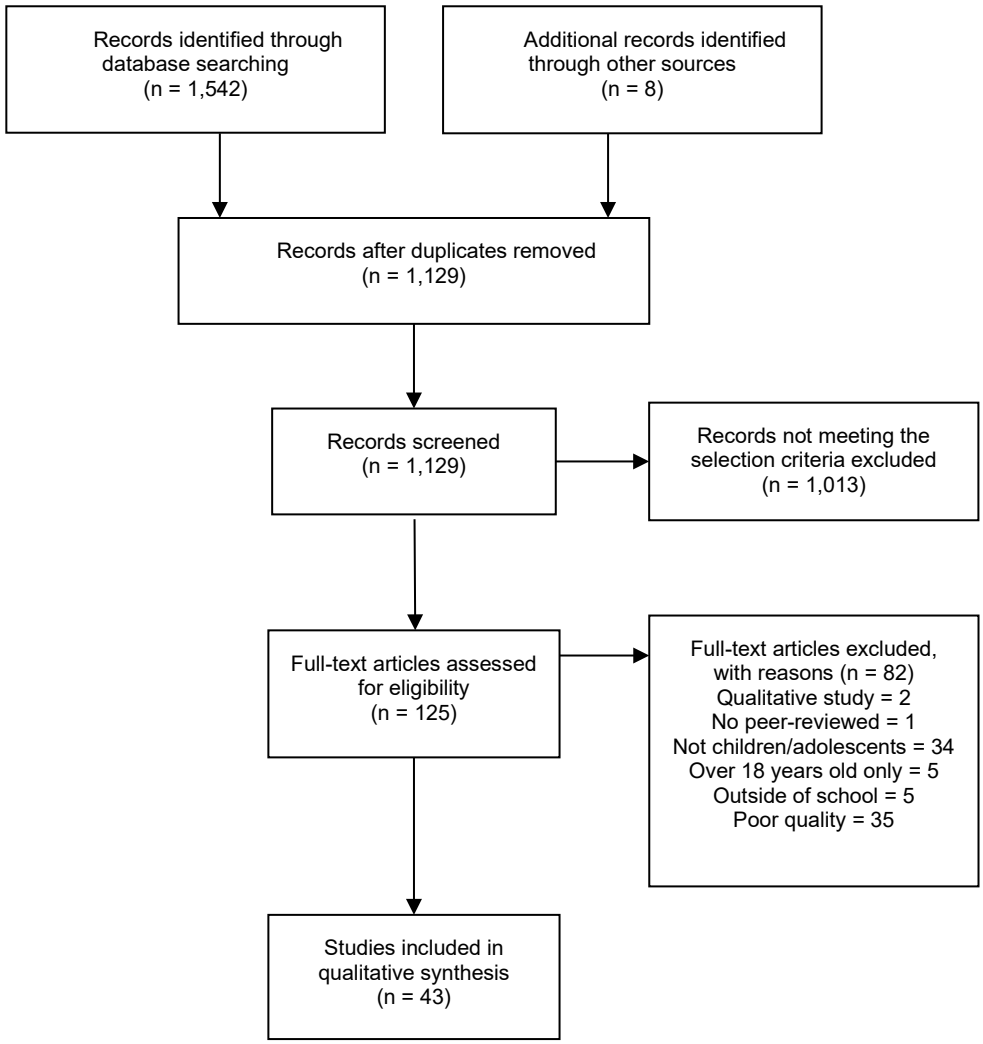

Figure 3. The PRISMA flow diagram of study selection in Study I. Modified from Study I.

6.2 Perceived school safety (Study II)

6.2.1 Prevalence of feeling unsafe at school

Of the 21,688 adolescents included in the analyses, 31.4% of adolescents (girls, 31.3%; boys, 31.1%) reported feeling unsafe at school (Figure 4). There were large variations across the 13 Asian and European countries, ranging from 11.5% in Finland to 69.8% in Japan for girls, and from 7.7% in Norway to 68.2% in Japan for boys.

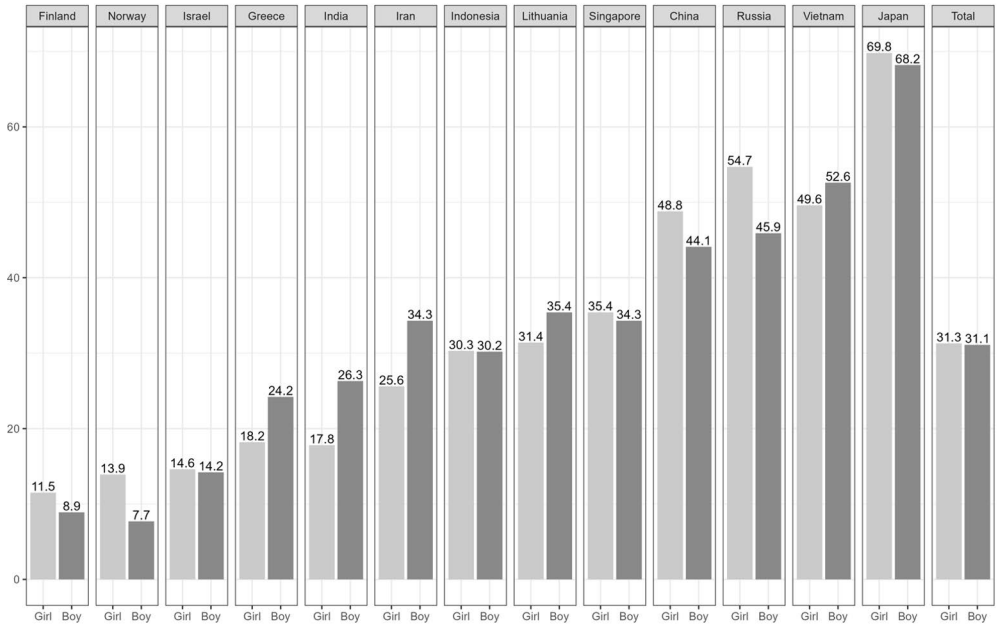

Figure 4. The percentage of adolescents feeling unsafe at school among girls and boys by country.

6.2.2 Associated factors with feeling unsafe at school

The associations between feeling unsafe at school and explanatory variables are shown in Figure 5. In the adjusted models, feeling unsafe was associated with being a victim of traditional bullying (girls OR 1.83, 95% CI 1.59–2.10 and boys OR 1.67, 95% CI 1.47–1.90), and combined traditional and cyberbullying (girls OR 2.70, 95% CI 2.20–3.31 and boys OR 2.04, 95% CI 1.66–2.52), internalizing problems (girls OR 1.10, 95% CI 1.08–1.12 and boys 1.10, 95% CI 1.08–1.12), externalizing problems (girls OR 1.06, 95% CI 1.04–1.08 and boys OR 1.03, 95% CI 1.02–1.05), moderate and severe perceived difficulties (girls OR 1.55, 95% CI 1.29–1.86 and boys OR 1.25, 95% CI 1.03–1.52), and having teachers who were perceived as less caring (girls OR 5.35, 95% CI 4.81–5.95 and boys OR 5.42, 95% CI 4.86–6.04) in both girls and boys. In girls, feeling unsafe was associated with cyber victimization (OR 1.53, 95% CI 1.23–1.9) and mild perceived difficulties (OR 1.18, 95% 1.04–1.34) but the associations were not significant in boys. Being in public schools was associated with feeling unsafe in only boys (OR 1.28, 95% 1.03–1.58). Age of adolescents and school location were not associated with feeling unsafe in the present sample. All countries had higher odds of feeling unsafe than the reference country (Finland) except Israel in girls. The greatest odds were found in Japan (girls OR 20.15, 95% CI 15.58–26.07 and boys OR 21.86, 95% CI 16.60–28.77). A post-

hoc analysis was conducted to check whether combined victimization was more strongly associated to feeling unsafe than traditional bullying only and cyberbullying only. This was done with logistic regression analysis adjusted for country and age, and the reference category was combined victimization. The analyses revealed that adolescents with combined victimization of both traditional bullying and cyberbullying had the highest risk of feeling unsafe compared to traditional bullying only or cyberbullying only. Similarly, moderate or severe perceived difficulties were more strongly associated with feeling unsafe than mild difficulties.

	Girl	Boy
Age		
13	1	1
14	0.92 (0.81-1.04)	1.02 (0.9-1.16)
15	0.88 (0.76-1.01)	0.97 (0.84-1.11)
Bully		
Not victimized	1	1
Traditional only	1.83 (1.59-2.1)	1.67 (1.47-1.9)
Cyber only	1.53 (1.23-1.91)	1.08 (0.86-1.37)
Combined	2.7 (2.2-3.31)	2.04 (1.66-2.52)
SDQ		
Externalizing	1.06 (1.04-1.08)	1.03 (1.02-1.05)
Internalizing	1.1 (1.08-1.12)	1.1 (1.08-1.12)
Perceived difficulties		
No	1	1
Mild	1.18 (1.04-1.34)	1 (0.88-1.13)
Moderate/Severe	1.55 (1.29-1.86)	1.25 (1.03-1.52)
Teacher care		
Always/Often	1	1
Never/Sometimes	5.35 (4.81-5.95)	5.42 (4.86-6.04)
School type		
Private	1	1
Public	0.88 (0.68-1.13)	1.28 (1.03-1.58)
School location		
Urban	1	1
Rural	1.07 (0.92-1.23)	1.06 (0.92-1.22)

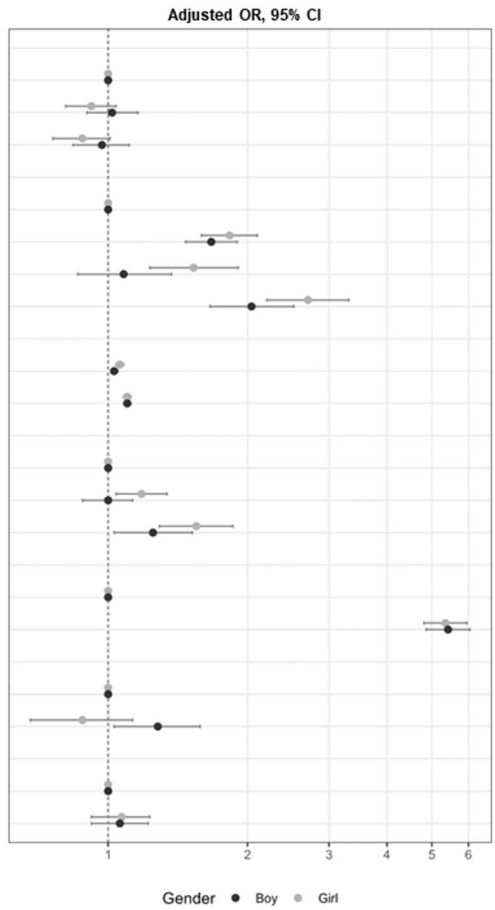

Figure 5. Associated factors of feeling unsafe at school by gender. The figure shows adjusted odds ratios and corresponding confidence intervals derived from multivariate regression analyses (Model I. adjusted for all explanatory variables except perceived difficulties), except the adjusted odds ratios and confidence intervals of perceived difficulties item estimated in Model 2 (Adjusted for all explanatory variables, excluding Japan and Israel).

6.2.3 Predicted probabilities of feeling unsafe at different schools

The predicted probabilities of feeling unsafe between schools in each country are shown in Table 6. The range in predicted probabilities of feeling unsafe between schools ranged from 0.13 in Vietnam (0.43–0.55, mean 0.5) to 0.59 in Japan (0.41–1.00, mean 0.72) in girls. In boys, it ranged from 0.10 in Vietnam (0.48–0.58, mean 0.53) to 0.54 in Russia (0.23–0.77, mean 0.48).

Table 6. The predicted probabilities of feeling unsafe between schools in each country.

Country	Range	Min–max	Mean	Range	Min–max	Mean
	Girl			Boy		
Finland	0.15	0.06–0.20	0.12	0.11	0.00–0.11	0.08
Norway	0.29	0.04–0.33	0.16	0.29	0.00–0.29	0.07
Israel	0.15	0.06–0.22	0.11	0.18	0.04–0.21	0.12
Greece	0.27	0.09–0.36	0.20	0.33	0.13–0.46	0.26
India	0.46	0.03–0.48	0.18	0.26	0.11–0.38	0.26
Iran	0.33	0.15–0.48	0.29	0.36	0.26–0.62	0.37
Indonesia	0.22	0.24–0.46	0.35	0.26	0.21–0.47	0.31
Lithuania	0.21	0.20–0.41	0.31	0.37	0.19–0.56	0.36
Singapore	0.45	0.12–0.58	0.35	0.40	0.09–0.49	0.34
China	0.20	0.35–0.55	0.47	0.34	0.24–0.58	0.44
Russia	0.54	0.19–0.73	0.53	0.54	0.23–0.77	0.48
Vietnam	0.13	0.43–0.55	0.50	0.10	0.48–0.58	0.53
Japan	0.59	0.41–1.00	0.72	0.34	0.57–0.92	0.69

6.3 Help-seeking behavior for mental health problems (Study III)

6.3.1 Help-seeking among girls and boys in the past 6 months

The percentages of adolescents with past 6 months help-seeking behavior are presented in Figure 6. The results reveal that 21.9% of girls (ranged 15.5% in Finland to 38.5% in China) and 16.3% of boys (5.0% in Finland to 34.4% China) had considered getting help for their mental health problems during the past 6 months.

Merely 7.7% of girls (1.5% in Israel to 15.9% in Vietnam) and 4.8% of boys (1.1% in Israel to 11.6% in Vietnam) sought help from only informal sources. Formal help-seeking was limited: 4.9% of girls (0.6% in China and India to 11.5% in Finland) and 1.7% of boys (0.9% in Vietnam and Israel to 2.9% in Greece) sought help from formal sources. The rate for seeking formal help was extremely limited (< 1%) in all middle-income countries (India, Vietnam, China) while it was relatively high among girls in Norway and Finland (girls, 10.1% and 11.5%; boys, 2.2% and 2.8%, respectively). Girls were significantly more likely to seek help than boys in most countries. The proportion of adolescents who did not perceive a need for help was 65.5% for girls (ranged from 46.4% in China to 78.7% in Israel) and 77.2% for boys (ranged from 56.4% in China to 91.2% in Finland).

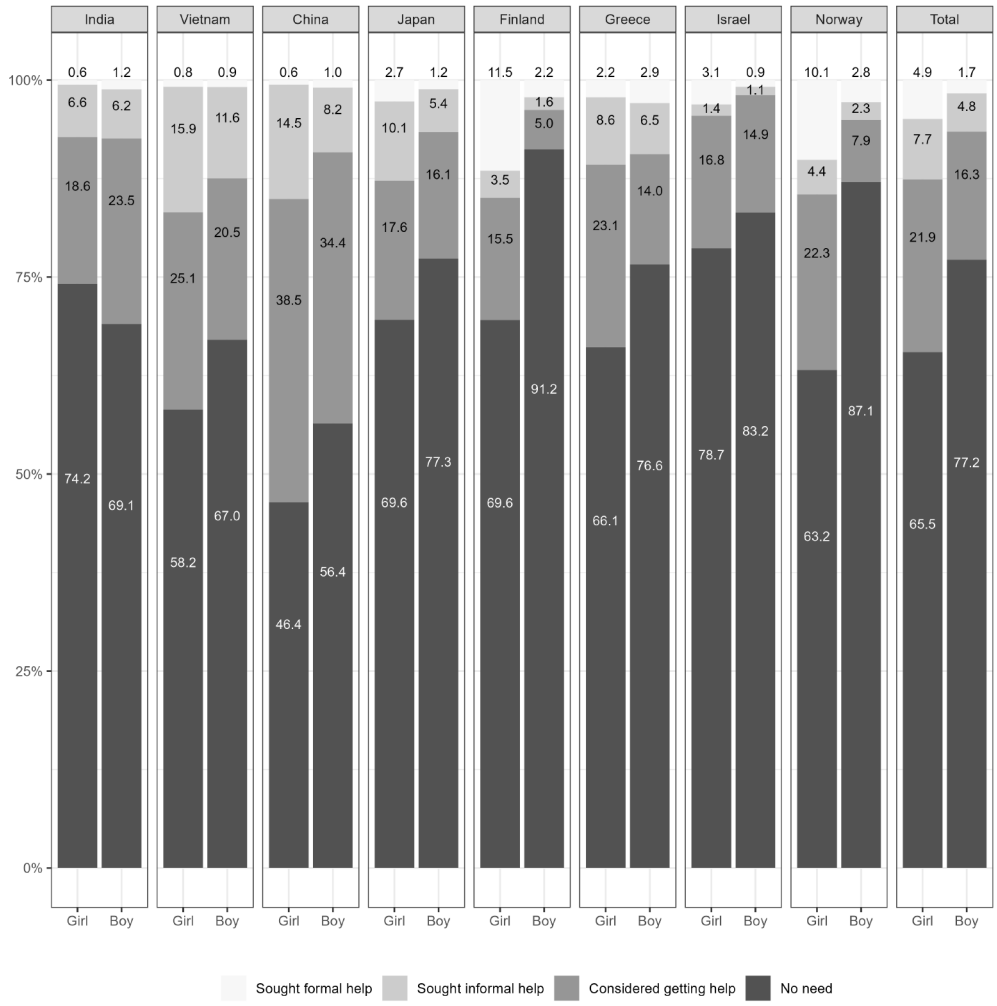

Figure 6. Help-seeking among girls and boys in the past 6 months.

6.3.2 Sources of help

The sources of help used by adolescents in each country among those who sought help are shown in Figure 7 for girls and Figure 8 for boys. In Asian countries, informal sources of help were used more frequently than formal sources. Significant gender differences ($p < 0.01$) were found in India, Vietnam, and China, where more girls sought help from friends than boys. In China ($p < 0.05$) and Japan ($p < 0.01$), boys sought help from relatives more than girls, while seeking help from teachers was more common among boys than girls in India ($p < 0.01$). Notably, boys in China sought help more often from school nurses ($p < 0.05$) and medical doctors ($p < 0.01$) than girls. On the other hand, adolescents in European countries sought help from both informal and formal sources of help but more from formal sources, except in Greece where informal sources were more frequently used. Significant gender differences were found only in Finland, where more girls sought help from formal help, especially from psychologists and school counsellors ($p < 0.01$), and in Norway, where more girls sought help from school nurses than boys ($p < 0.01$).

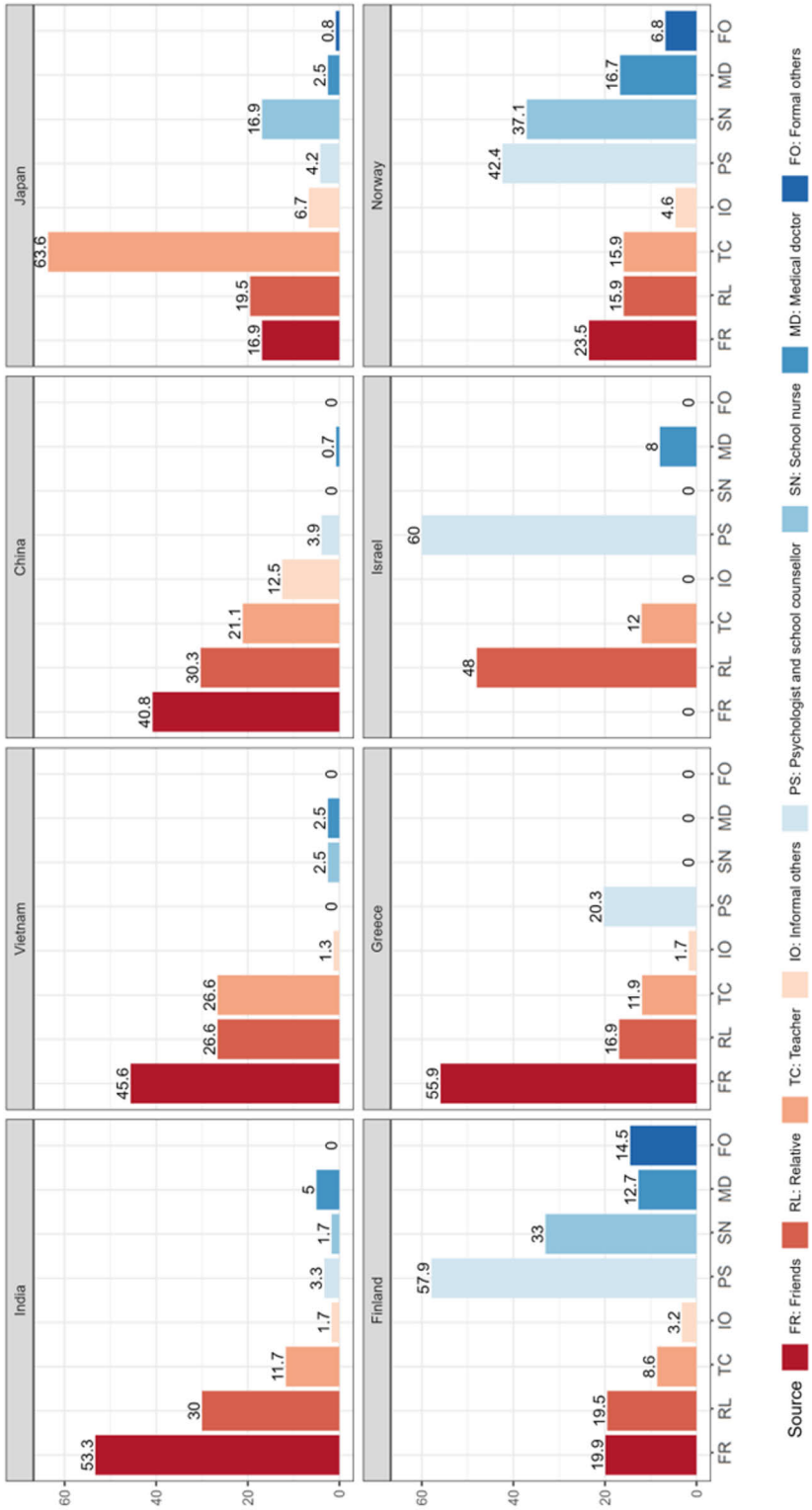

Figure 7. The sources of help that adolescent girls used in each country among those who sought help (%).

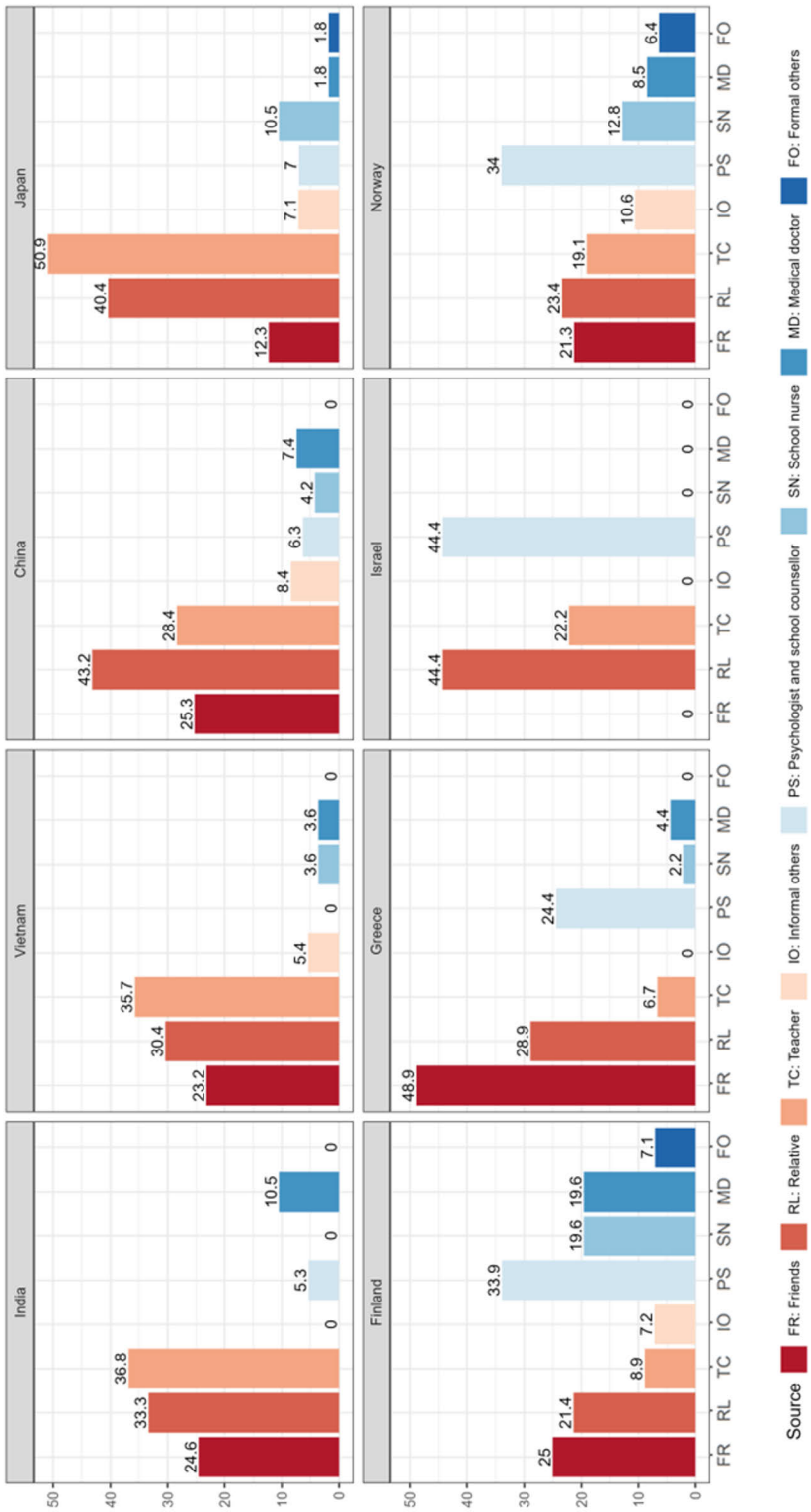

Figure 8. The sources of help that adolescent boys used in each country among those who sought help (%).

6.3.3 Unmet need for mental health care

In the total sample, 13.2% of girls and 9.0% of boys had a high level of problems (above the 90th percentile SDQ total scores) (Figure 9). Among those with a high level of problems, less than 2.5% of girls (ranged 1.8% to 2.3%) and boys (0.0% to 2.5%) sought formal help in middle-income countries. The rate of seeking formal help among those with a high level of problems was slightly higher in Greece, Israel, and Japan (girls, 5.9%–9.2%; boys, 2.6%–8.9%). Clearly higher rates were observed among girls in Finland (32.8%) and Norway (26.4%), while among boys the rates were lower (9.1% and 10.3%, respectively). A significant difference between girls and boys was found only in Finland and Norway.

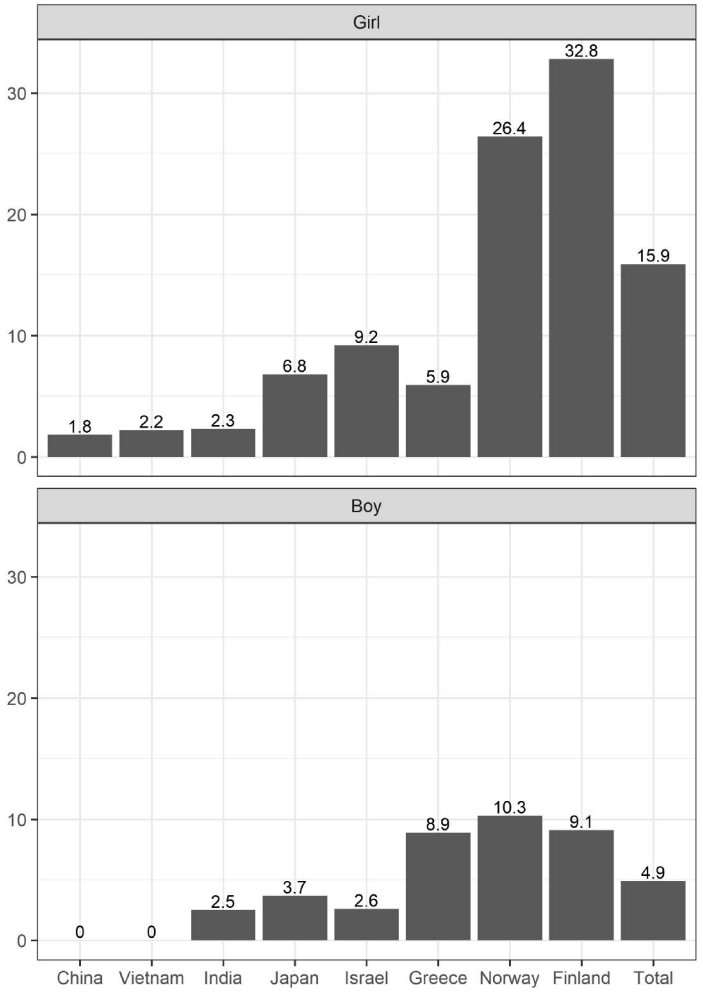

Figure 9. The percentage of adolescents who sought formal help among those scoring above the 90th percentile in total difficulties scores.

The odds ratios and 95% confidence intervals for not seeking formal help among those scoring above the 90th percentile in total difficulties scores are shown in Figure 10. Compared to Finland (reference), increased odds of having unmet need (i.e., an absence of formal help seeking among those with above the 90th percentile in SDQ total scores) were observed in all countries, except in Norway in girls, while no significant difference was found between countries in boys. The greatest odds were observed among Chinese girls (OR 28.49, 95% CI 6.67–121.61).

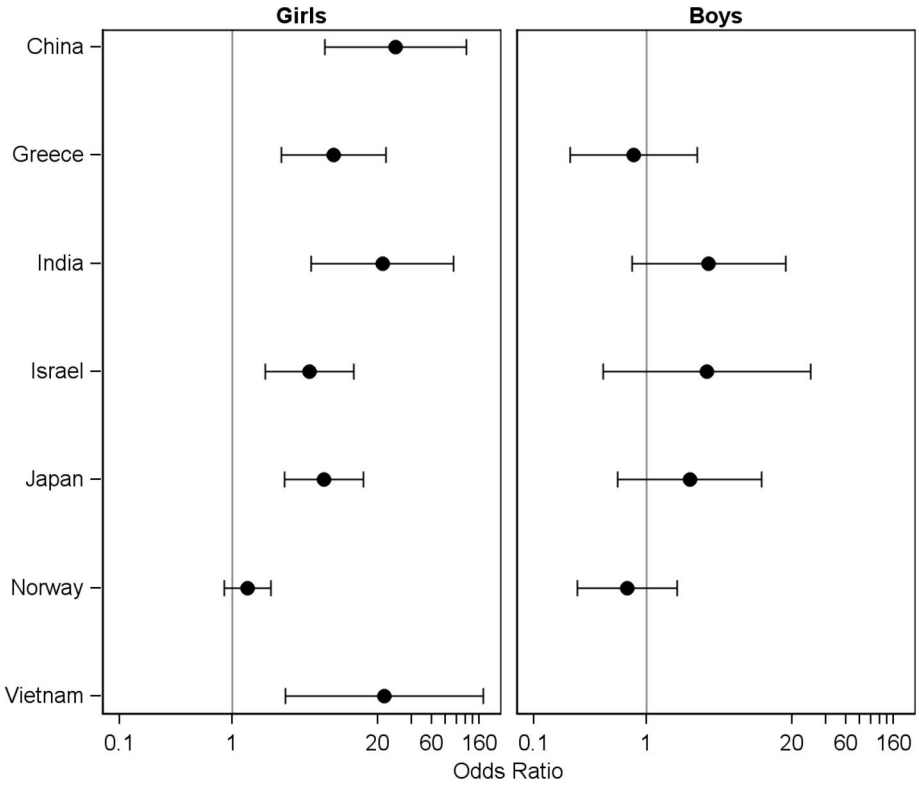

Figure 10. Odds ratios and 95% confidence intervals for not seeking formal help among those scoring above the 90th percentile in total difficulties scores (reference country = Finland).

6.4 Cyberbullying victimization and suicide attempt (Study IV)

6.4.1 Prevalence of bullying victimization and suicide attempt

The percentages of adolescents who reported suicide attempt are shown by country in Figure 11. Of the 9,892 adolescents included in the analyses, 4.8% of adolescents (girls, 6.3%; boys, 3.2%) reported suicide attempt. There were some variations across countries, ranging from 2.2% in Indonesia to 8.1% in Iran.

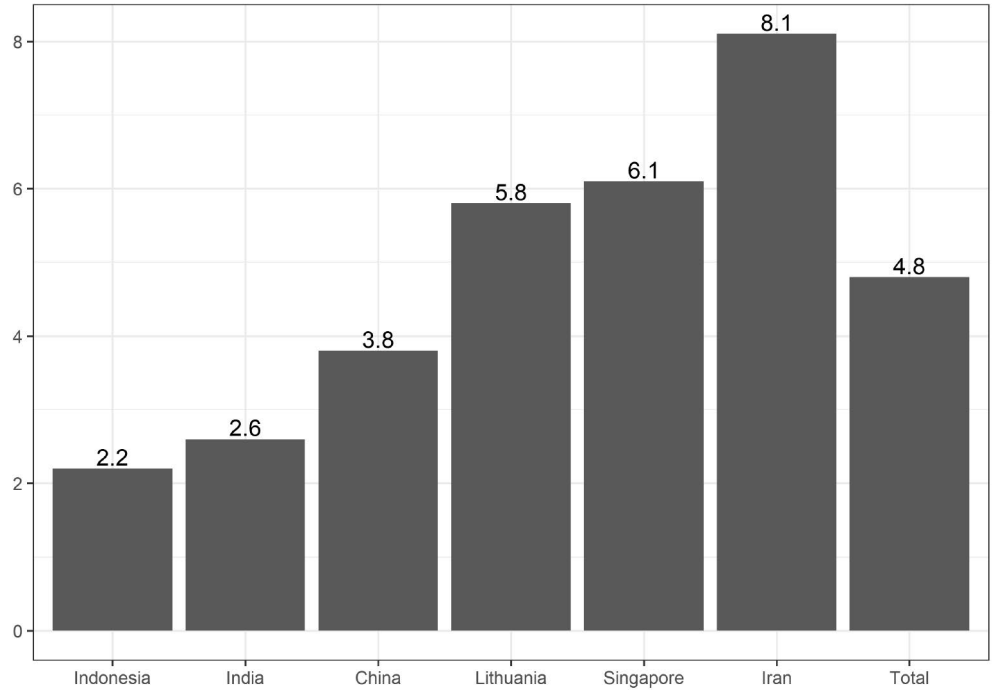

Figure 11. The percentage of adolescents who reported suicide attempt by country.

The percentage of adolescents who reported bullying victimization in the past six months are shown by country in Figure 12. The prevalence of victimization in the past six months was 5.4% (ranged from 1.3% in India to 6.5% in Indonesia) for cyberbullying only, 19.2% (ranged from 12.8% in China to 26.2% in Lithuania) for traditional bullying only, and 6.8% (ranged from 2.1% in India to 13.8% in Indonesia) for combined victimization (both cyber and traditional bullying).

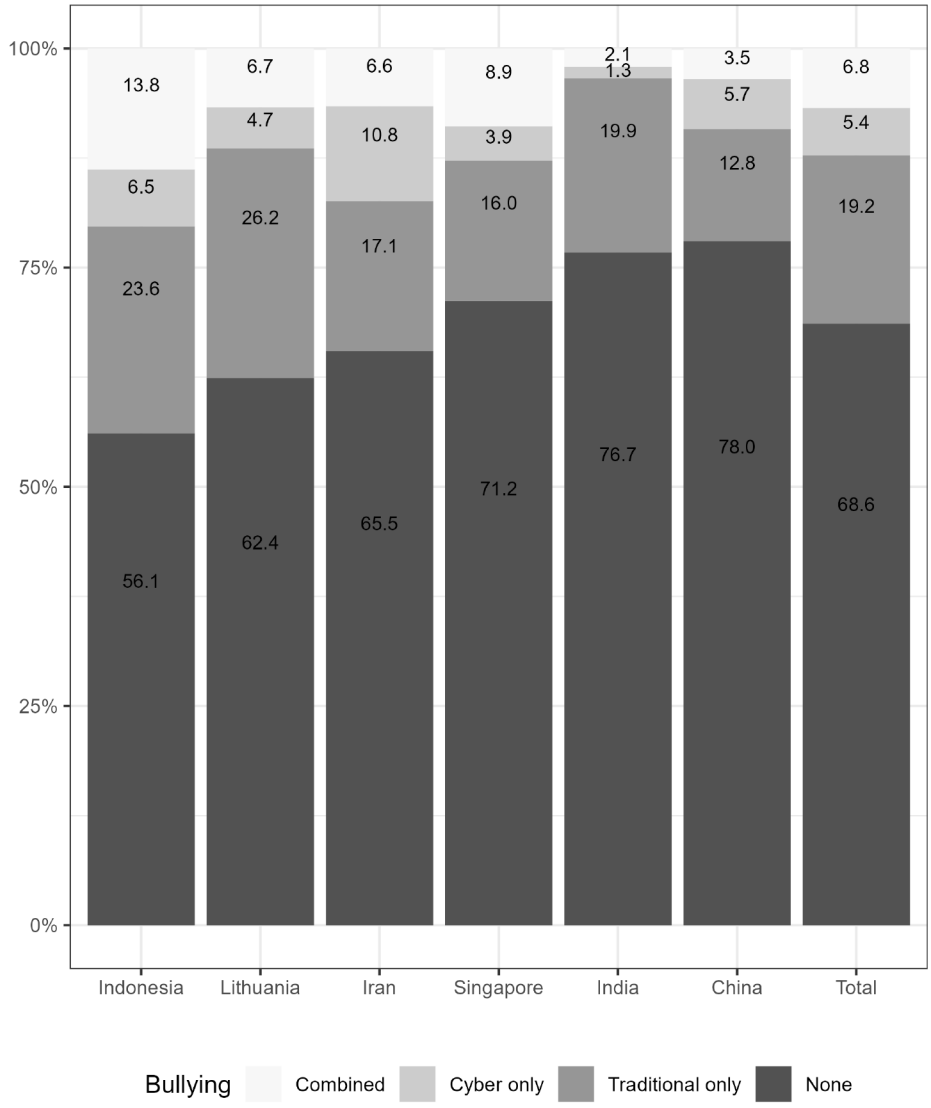

Figure 12. The percentage of adolescents from the total sample who reported bullying victimization in the past six months by country.

6.4.2 Association between bullying and suicide attempt

The associations between suicide attempt and bullying victimization by country are shown in Figure 13. In the adjusted models, increased odds of suicide attempt were observed in victims of all three categories of bullying (traditional only, cyber only, combined) in India, Lithuania, and Singapore. The highest odds were observed among victims of combined bullying in all these countries (OR 15.61, 95% CI

10.61–22.94 in Lithuania, OR 9.25, 95% CI 3.85–22.25 in India, and OR 7.47, 95% CI 4.80–11.63 in Singapore). In China, a significant association was observed only in victims of combined victimization (OR 4.22, 95% CI 1.77–10.02). In Iran, no significant associations were found with any category of bullying victimization. In all countries except Iran, the analyses revealed that the victims of combined bullying were significantly more likely to attempt suicide than those who were not bullied. Cyberbullying victimization had the second highest odds for suicide attempt in India and Singapore (OR 8.83, 95% CI 1.34–58.03; OR 2.95, 95% CI 1.44–6.03, respectively) while traditional bullying victimization had the second highest odds in Lithuania (OR 4.85, 95% CI 3.23–7.27).

	Traditional only	Cyber only	Combined
Singapore	2.32 (1.5-3.58)	2.95 (1.44-6.03)	7.47 (4.8-11.63)
Lithuania	4.85 (3.23-7.27)	2.71 (1.27-5.79)	15.61 (10.61-22.94)
China	1.71 (0.92-3.16)	1.48 (0.57-3.84)	4.22 (1.77-10.02)
Iran	1.69 (0.62-4.62)	2.09 (0.91-4.8)	2.02 (0.61-6.66)
India	4.87 (2.47-9.57)	8.83 (1.34-58.03)	9.25 (3.85-22.25)

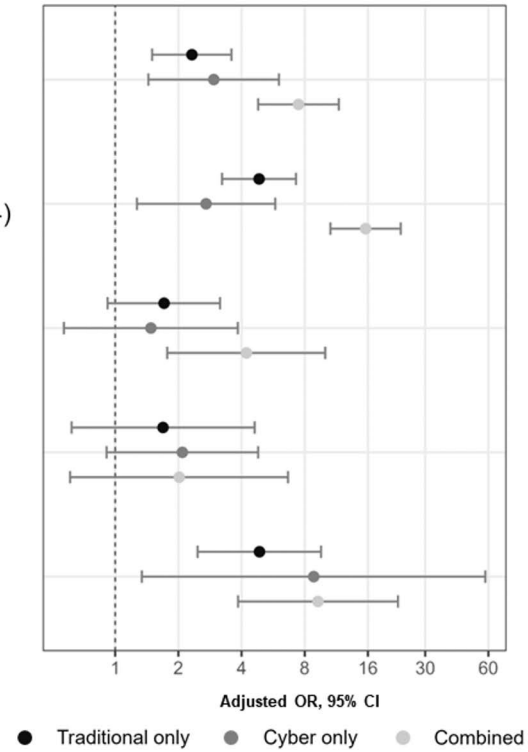

Figure 13. Multivariate analyses of the association between suicide attempt and bullying victimization by country.

6.4.3 Moderation effect of emotional symptoms

We used a GEE model to test the moderation role of emotional symptoms in the relationships between bullying victimization and suicide attempt. The result revealed that emotional symptoms moderate the relationship between combined bullying victimization (both traditional and cyberbullying) and suicide attempt ($p < 0.05$) (Figure 14). In other words, the relationship between combined bullying victimization and suicide attempt differs according to the level of emotional symptoms. The odds ratio of bullying decreased when emotional symptoms increased. For traditional victimization only and cyberbullying victimization only, the interaction was not significant.

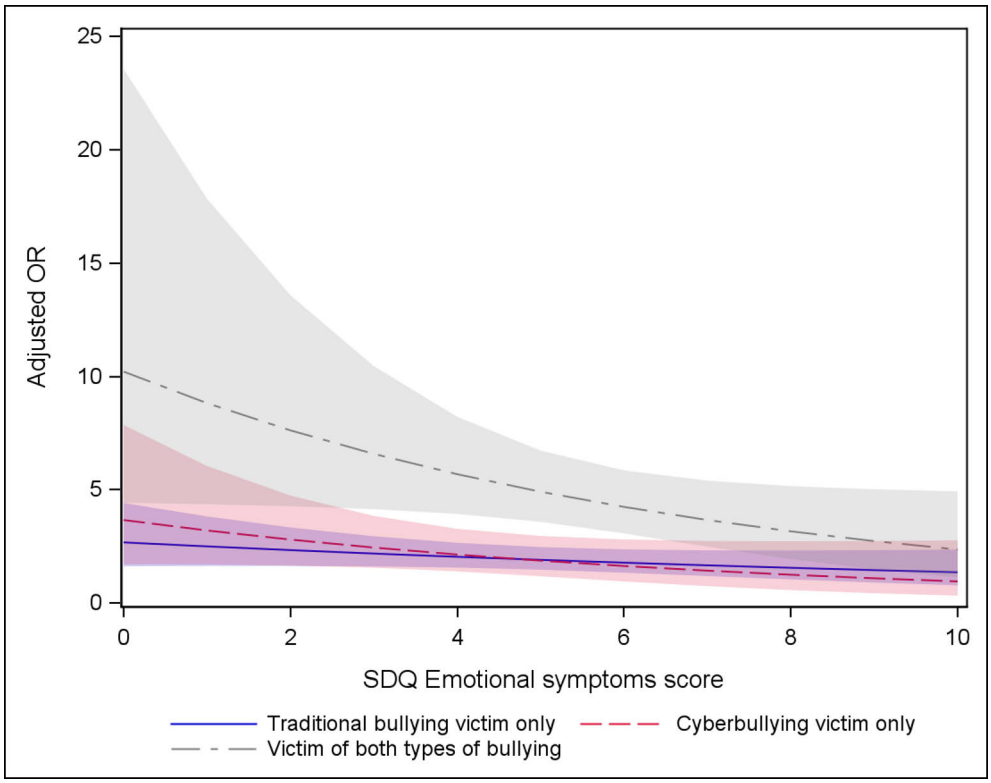

Figure 14. Adjusted Odds Ratio of suicide attempt and the 95% confidence intervals by victimization type and emotional score adjusted for country, age, and gender. The reference category was no bullying victimization.

7 Discussion

7.1 Main findings

The study was based on a systematic review and a school-based cross-national epidemiological study, EACMHS. The aim was to conduct a cross-national comparison of mental health problems among adolescents with a specific focus on perceived school safety, help-seeking behavior for mental health problems, cyberbullying, and suicide attempt. The main findings of this study are:

I. In a systematic review of 43 papers, 6.1% to 69.1% of students felt unsafe at school. Factors that were associated with perceived school safety included victimization, mental health issues, and fairness of school rules. The review highlighted a lack of cross-cultural studies and a clear definition of perceived school safety.

II. Overall, 31.4% of adolescents felt unsafe at school in 13 countries, with notable country variations (ranging from 11.5% to 69.8% for girls and from 7.7% to 68.2% for boys). Strong associations were observed between feeling unsafe at school and bullying victimization, mental health problems, and lack of caring from teachers. The probability of feeling unsafe in different schools varied widely in many countries.

III. The use of formal help for mental health problems among adolescents was very low, especially in middle-income countries. Girls were generally more likely to seek help than boys. There was a high level of unmet need (i.e., an absence of formal help seeking among those with SDQ total scores above the 90th percentile), especially in lower-income countries.

IV. Prevalence of suicide attempt was 4.8%, with higher rates in girls. The prevalence of victimization was 5.4% for cyberbullying only, 19.2% for traditional bullying only, and 6.8% for combined victimization (both cyber and traditional bullying). Students with both cyber and traditional bullying victimization had the highest suicide attempt risk and emotional symptoms moderated the association between combined victimization and suicide attempt.

7.2 Methodological discussion

7.2.1 Study I

Study I was conducted following the PRISMA guidelines (Moher et al., 2009), a widely used tool to improve the quality of conducting systematic reviews. The review was registered in PROSPERO to promote transparency. The comprehensive literature search was carried out using five electronic databases, ensuring a wide coverage of relevant studies. The quality assessments of the papers were conducted using a validated tool from the National Heart, Lung, and Blood Institute (NHLBI) (National Institutes of Health/National Heart, 2014). Clear research questions and detailed inclusion criteria added to the study's robustness. Despite these strengths, the review had its limitations. Firstly, the review only included English-language publications. Although there were no restrictions on the country of origin, this language restriction potentially overlooked valuable insights from non-English-speaking countries. Secondly, while the search yielded a large amount of literature to be screened, the number of relevant studies to be included was limited. The search strings may not have been optimal even though the search strings were carefully formulated following the PICO (Population, Intervention, Comparison, Outcome) framework (Liberati et al., 2009) and a university librarian was consulted. Thirdly, almost all of the reviewed papers were based on a cross-sectional study design, which limited the review's capacity to draw causality between variables. Lastly, the heterogeneity in measurement tools and lack of definitions of perceived school safety across studies posed challenges in synthesizing findings.

7.2.2 Study design and sampling in Studies II–IV

Studies II–IV are based on a cross-national epidemiological study including 21,688 adolescents from 13 countries. Unlike systematic reviews and meta-analyses, where the results of isolated studies are synthesized to estimate global prevalences, a cross-national design allows for a direct comparison of mental health outcomes, risk factors, or behaviors between countries using the same measures across countries. There were some variations in the age groups of the original total sample between countries. To increase the comparability of results, the studies only included adolescents aged 13–15 years in the studies. There were significantly more girls than boys in Greece and Israel for Studies II and III. However, it is unlikely that this was a major source of bias because the analyses were carried out by gender. In the sample of Study IV, there were significantly higher percentages of girls in Iran and the total sample. The survey faced significant challenges due to the stigma and sensitivity surrounding suicide attempt in Iranian society. Notably, there were numerous

missing responses to the suicide attempt question among boys, and this may be attributed to stricter supervision in boys' schools during the survey administration. This may have decreased the comparability of the sample in each country. The data collection was conducted between 2011 and 2017. It is possible that different data collection years affected the results across countries due to increased awareness surrounding mental health over time, increased diagnosis and service use of child mental health in some countries, and availability of school-based intervention at the time of data collection (World Health Organization, 2019).

The study was school based, offering a wide representation of adolescent populations across different countries, and thereby increasing the generalizability of the findings. However, the percentage of out-of-school adolescents varies worldwide, such as 1.6 % in Europe and Northern America and 15.2% in Southern Asia (United Nations Educational Scientific and Cultural Organization, 2019b). Restricting the sample to adolescents who were present at school on the day of the data collection may have led to the exclusion of some adolescents. This may have introduced some selection bias given that some groups of adolescents (e.g., those with disabilities or severe mental health problems) might more likely be absent from school. The median response rate was 88.9% in the total sample, and the rate varied from 51.7% (Indonesia) to 97.1% (Iran). The adolescents who did not respond to the survey were excluded from the research, and this reduced the representativeness of the samples. Unfortunately, we do not have information on why some adolescents did not respond to the survey. The data collection was based on convenience sampling, and it was conducted in certain regions of the participating countries. Therefore, the present sample is not fully representative of each country. This lack of sample representativeness in cross-national studies is a common methodological challenge (Buil et al., 2012). The results should be interpreted with caution especially in countries like China and India with wide within-country differences.

Although the aim was to include both public and private schools from urban and rural areas to increase the sample representativeness, the majority of adolescents were from private schools in countries such as India and Indonesia. In contrast, many countries such as Lithuania, Singapore, Finland, Greece, Japan, Vietnam, and Russia had no adolescents from private schools in the sample. This difference partially reflects the different educational systems in each country. Finland, for instance, has very few private schools, while in some countries, private schools are the mainstream. Moreover, the number of schools included in each country varies, and this might have decreased the representativeness of the study.

The study was based on a cross-sectional study design, an observational research method that analyzes data from a population at one specific point in time. It has been commonly used to measure the prevalence of mental health outcomes and identify the determinants of the outcomes in psychiatric research (Susser, 2006). Compared

to longitudinal studies, cross-sectional studies are less time-consuming and relatively inexpensive to perform due to single-time data collection (Sedgwick, 2014). The disadvantages of cross-sectional design are the limited ability to determine cause-and-effect relationships, the inability to observe changes over time, and possible errors in the sampling design (Wang & Cheng, 2020).

7.2.3 Data sources

In Studies II–IV, data was obtained from adolescents using a self-reported questionnaire. There are several limitations connected to the use of self-reported measures in epidemiological studies. Results may be affected by a number of biases such as recall and social desirability bias, and measurement error (Paulhus & Vazire, 2007). Recall bias is when individuals inaccurately remember or report past events or experiences (Wright et al., 2012). Social desirability bias is a type of response bias that occurs when respondents answer in a way they believe is socially acceptable rather than stating their true feelings or beliefs (Nederhof, 1985). In the questionnaire, it was stated that the focus of the survey was mental health of young people. However, the interpretation of terms such as "problems, feelings, behavior or emotional trouble" in the help-seeking measure could have been subjective. Individuals may have interpreted these terms differently. Measurement error refers to the difference between the actual value of a quantity and a measured quantity (Michalos, 2014). Previous research has shown that this type of error is more likely to occur when individuals are asked sensitive questions (Tourangeau & Yan, 2007). The questionnaire used in the studies included a number of questions that could have been considered sensitive, such as perceived school safety, bullying, and suicide attempt. Although self-report is commonly used in adolescent mental health research, reports by parents, teachers, or peers would have strengthened the study design rather than relying solely on self-reports of adolescents. Furthermore, careful clinical interviews of multiple informants can be a more effective method for assessing the mental health status of adolescents (Srinath et al., 2019). However, this was impractical due to the study's cross-cultural design involving a substantial number of subjects in each country. The use of self-reported instruments is standard practice in child and adolescent psychiatry research (Kieling et al., 2011). It is also important to validate the self-reporting instrument to minimize this bias.

The self-report version of the SDQ (Goodman, 1997) was used to assess the emotional and behavioral difficulties among adolescents in Studies II–IV. The SDQ is one of the most widely used screening instruments around the world, and it has been used for several decades in international studies to identify the difficulties in children and adolescents (Achenbach et al., 2012; Maezono et al., 2019; Marzocchi et al., 2004; Obel et al., 2004). It has been found to have good internal consistency,

reliability, and inter-rater agreement in school-aged children (Goodman, 2001; Muris et al., 2004; Theunissen et al., 2019). The SDQ has been translated into more than 80 languages, and all 13 participating countries had a translated version of the SDQ in their native languages (Child Outcomes Research Consortium, n.d.). Although it provides insights into the extent of a child's difficulties through an overall stress score and assesses the impact of these difficulties on the child, it should be noted that the SDQ is not a diagnostic tool. Diagnosis of a mental health disorder involves a structured assessment of symptoms and classification according to diagnostic classifications such as the Diagnostic and Statistical Manual of Mental Disorders. The other measures in the questionnaire are self-invented, not validated scales, and this may raise concerns about the reliability and consistency of this research. The use of validated scales would have been more reliable, but scales for measuring mental health and related behaviors are often lengthy and only available in English or a small number of languages. The development of validated concise scales that have been translated into many languages to measure the mental health and related behavior of adolescents should be developed for future cross-national research.

The questionnaires were translated across countries using a back-translation procedure to maintain the intended meaning of each item (Brislin, 1970). Despite these efforts, it is possible that there were slight changes in the meanings of questions during the translation processes. Furthermore, cultural factors may also play a role in the interpretations of questions. For example, the words used to express feelings of safety or bullying may have different connotations across diverse cultures and languages (Grazia & Molinari, 2020; Smith et al., 2002). Although similar study methodologies were used to allow for a robust cross-national comparison of survey results, there were notable differences in survey formats across countries. The data were collected using a paper-based survey questionnaire in most countries. However, an electronic survey was used in Norway and Singapore. Although previous research supports the adaptation of a paper-based survey questionnaire into an electronic questionnaire (Van de Looij-Jansen & De Wilde, 2008), this may have affected the comparability of the results.

A further limitation to be considered is that the information on several important risk factors and protective factors of outcome variables such as socioeconomic status, mental health literacy, and family relations were not available in the survey dataset. In addition, in Study III, family members were not included in the source of help options initially and this may lead to under-reporting of informal help-seeking. Some measures were dichotomized for the analyses, leading to loss of nuanced information about variations within the data. Finally, the response options for gender were limited to "a boy" and "a girl." It is important for future research to include other options to ensure inclusivity and representation in the data.

7.3 Discussion of the results

7.3.1 Systematic review on perceived school safety (Study I)

Key messages

- This was the first systematic review to provide a comprehensive overview of studies on perceived school safety and associated mental health issues.
- The proportion of students feeling unsafe at school varied widely across studies. In part, these variations may be attributed to differences in study methods and a lack of standardized definitions.
- It is important to provide targeted prevention interventions for students facing multiple challenges such as bullying and mental health issues according to the nature and severity of their issues.
- Future research should explore perceived school safety across nations, especially including lower-income non-Western countries.

The systematic review synthesized the findings of 43 papers that studied the feeling of safety at school among children and adolescents. The main finding of the review was that a significant number of children and adolescents reported feeling unsafe at school. Feeling unsafe at school was associated with various factors such as being bullied and mental health problems, such as depressive symptoms and suicidal behavior. Most of studies were carried out in Western countries, and the review found only one cross-national study on this topic based on the inclusion and exclusion criteria.

According to the included studies, 6.1% to 69.1% of students reported feeling unsafe at school. Some studies showed alarmingly high rates, emphasizing the urgent need for strong political leadership to ensure a safe learning environment for all children (United Nations Educational Scientific and Cultural Organization, 2019a). The proportion of students feeling unsafe at school varied widely between studies, ranging from 6.1% in a study from the United States (Earnest & Brady, 2016) to a concerning 69.1% in a study conducted in Japan (Hamada et al., 2018). The significant variation in results may be due to differences in study methods, the absence of a standardized definition for perceived school safety, or variations in measurement approaches. Notably, most findings originated from studies in Western

countries, hindering the identification of culture-specific differences in perceived school safety on a global scale.

All studies included some kind of demographic variables to examine who is more likely to feel unsafe at school. The review reveals mixed findings on gender differences in perceived school safety. Some studies suggest boys felt more unsafe due to their higher involvement in disruptive activities (Atteberry-Ash et al., 2019; Bachman et al., 2011; Hong & Eamon, 2012; Lorenzo-Blanco et al., 2016; March & Serdar Atav, 2010; Yablon & Addington, 2010), while others report girls having greater fears (Hong et al., 2016; Lindstrom et al., 2018; Mooij & Fettelaar, 2012; Mowen & Freng, 2019; Perumean-Chaney & Sutton, 2013). Some studies found no significant gender differences (Bowser et al., 2018; Hamada et al., 2018; Vaillancourt et al., 2010). Overall, the findings indicate that a sense of feeling unsafe at school is a shared issue for both boys and girls. Several studies consistently show that sexual minority youths and non-white students are often more likely to feel unsafe at school, and this could reflect the higher prevalence of bullying victimization observed among minority students (Albdour & Krouse, 2014; Cénat et al., 2015; Llorent et al., 2016; O'Malley Olsen et al., 2014). The prevalence of bullying victimization generally decreases as students get older (Cook et al., 2010; Dake et al., 2003). However, several studies report higher feeling of unsafe among older students. This discrepancy might be explained by additional factors linked to lower perceived safety, such as the higher prevalence of emotional problems among adolescents compared to younger children (Ghandour et al., 2019).

Feeling unsafe at school was associated with various school-related factors. The review found strong links between feeling unsafe and bully victimization and being a victim of youth violence. It is understandable that victims of such violence may feel unsafe and fear attending school (Grinshteyn & Tony Yang, 2017; Havik et al., 2015; Steiner & Rasberry, 2015). Literature has consistently reported that students rely on teachers for safety and expect them to address bullying (Crothers & Kolbert, 2004; Rigby, 2014). However, successful teacher intervention is not always guaranteed, as they may be unaware of bullying or may even feel it is not necessary to intervene (Bauman & del Rio, 2006; Kochenderfer-Ladd & Pelletier, 2008; Swearer & Cary, 2003). Although strengthening school security measures is a common approach to preventing school violence (Snyder et al., 2019), research suggests that the use of metal detectors and digital surveillance technology can negatively affect students' perceptions of school safety. Students do not like being searched and monitored by security devices, and this could lead to a lower feeling of safety (Gastic, 2011; Lindstrom et al., 2018). On the other hand, studies reported several protective school-related factors associated with better perceived school safety, including the use of fair, consistent, and clear rules at school, and smaller

class sizes that allow for more individual attention and active interaction with teachers (Blatchford et al., 2011).

The review reveals that feeling unsafe at school was associated with mental health issues, including emotional problems and suicidal behavior (Arora & Wheeler, 2018; Gase et al., 2017; Moore et al., 2018). Feeling unsafe at school was also a strong independent risk factor for bullying victimization (Earnest & Brady, 2016; Eisenberg et al., 2007; Garnett & Brion-Meisels, 2018; Glew et al., 2008; Goldweber et al., 2013; Konishi et al., 2017; López et al., 2020; Meyer et al., 2018; Pampati et al., 2020; Radu, 2018). The associations between emotional problems and bullying with perceived school safety appear to be complex. When students experience both of these factors, it may put them at greater risk for poor perceived school safety. Addressing these issues is crucial to combat absenteeism, as 10–14% of students skip school due to feeling unsafe (Lenzi et al., 2017; S. Williams et al., 2018). This finding suggests that most vulnerable students may need additional support, for example, targeted prevention interventions according to the nature and severity of students' issues (Darling-Hammond et al., 2019).

Only one cross-cultural study met the inclusion criteria. The study compared perceived school safety between China and the United States and revealed that Chinese students feel safer at school compared to American students (Bear et al., 2018). Gong's master's thesis (2016) also supports higher perceived school safety among Chinese students than among American students, but this study was not included in the review due to quality assessment. Differences in the prevalence of perceived school safety between countries may be due to cultural values such as self-perfection, respecting teachers, and social harmony (Bear et al., 2018; Gong, 2016). However, most of the data on this topic is based on studies conducted in single Western countries. It is important for future studies to examine perceived school safety among children and adolescents in a cross-national context. With increasing international immigration (United Nations Department of Economic and Social Affairs Population Division, 2019), future studies should also explore how immigrant children feel in educational settings compared to their native-born peers. Most of the studies were conducted in the United States. The increasing number of publications on the topic, especially after 2016, may reflect the increased number of school shootings observed in the United States in recent years (Center for Homeland Defense and Security, 2020).

7.3.2 Perceived school safety in 13 countries (Study II)

Key messages

- The study was the first large-scale cross-national study on perceived school safety and its associations with individual and school characteristics.
- The variation in the prevalence of perceived school safety between countries (from 11.5% to 69.8% for girls and from 7.7% to 68.2% for boys) may reflect cultural characteristics (power distance, individualism-collectivism), academic stress, and the use of corporal punishment by teachers.
- Consistent with previous research, strong associations were found between feeling unsafe at school and bullying, emotional and behavioral difficulties, and teacher relationships. Future research should explore the causes and directions of these associations.
- The variations between schools within countries emphasize the inequality in the quality of education within countries.

7.3.2.1 Between-country variance in perceived school safety

The study showed that 31.4% of the adolescents (31.3% for the girls and 31.1% for the boys) did not feel safe at school. Wide variations across the 13 Asian and European countries were observed, from 11.5% (Finland) to 69.8% (Japan) for girls and from 7.7% (Norway) to 68.2% (Japan) for boys.

Nearly one-third of adolescents did not feel safe at school, highlighting a prevalent issue in educational settings around the world. In Nordic welfare states with robust social safety nets, such as Finland and Norway, the prevalence of adolescents feeling unsafe was remarkably low, underlining the positive impact of comprehensive social support systems. Surprisingly, Japanese adolescents, despite residing in a high-income country with low crime rates (Institute for Economics & Peace, 2020; World Bank, 2024), had the highest rate of feeling unsafe at school. The reasons for this contrast remain unclear, and they may reflect how Japanese adolescents perceive safety and their cultural and social characteristics. In addition, school absenteeism is a serious issue in Japan. In 2022, 6% of junior high school students refused to attend school, and more than half of those students had serious long-term absences of 90 days or more (Ministry of Education Culture Sports

Science and Technology-Japan (MEXT), 2023). This high school absenteeism may reflect the low perceived school safety among adolescents in Japan.

Adolescents in countries with greater power distance and collectivistic cultures were more likely to feel unsafe at school. Power distance reflects the acceptance of hierarchy, while collectivism emphasizes group conformity over individual interests (Hofstede et al., 2010). Similar trends were found in a large international study on school connectedness, as adolescents in countries with greater power distance and collectivistic cultures tended to feel less connected with their school communities (Cortina et al., 2017). In cultures with teacher-centered and strictly disciplined education, characterized by a high power distance, positive teacher-student relationships may be hindered, contributing to a reduced sense of safety among adolescents (Hofstede, 1986). Furthermore, highly competitive and stressful environments in Asian schools may lead to decreased feelings of safety, as excessive academic distress correlates with emotional and behavioral difficulties (Chellamuthu & Kadhiravan, 2017; Zhao et al., 2015). A further point to be considered is the use of violent punishment in schools. Globally, roughly half of the school-age population is subjected to laws permitting corporal punishment in schools (End Corporal Punishment, 2023). This may contribute to students feeling less safe if they experience or witness physical punishment at school.

7.3.2.2 Factors associated with feeling unsafe at school

The study reveals a strong association between feeling unsafe at school and various factors, including bullying victimization, emotional and behavioral difficulties, and teacher relationships. Traditional and combined bullying (both traditional and cyberbullying) victimization was significantly associated with feeling unsafe for both girls and boys, while cyberbullying only was associated with feeling unsafe at school only in girls. This could reflect the higher prevalence of cyberbullying victimization among girls compared to boys (Hamm et al., 2015). Internalizing and externalizing symptoms and moderate and severe perceived difficulties were independently associated with feeling unsafe at school in both girls and boys. According to previous longitudinal studies, there is a link between school violence and victimization to later internalizing/externalizing problems (Janosz et al., 2008, 2018). Individuals with mental health issues may feel unsafe due to a perceived lack of support or stigma (Lynch et al., 2021). The causes and directions of the association between emotional and behavioral difficulties and lower perceived school safety are unclear, and an increased understanding of these associations should be the subject of future investigation.

A strong independent association was found between feeling unsafe and the level of care provided by teachers. The fact that both girls and boys felt unsafe at school

if they believed teachers did not care about them was a striking finding. Previous research has shown that positive teacher-student relationships are linked to better psychosocial well-being and reduced mental health problems among students (Al-Yagon & Mikulincer, 2006). The findings highlight the important role of teachers in fostering a secure educational environment, essential for fostering the development of adolescents.

No significant age group differences were found in the study, contrary to previous studies (Bear et al., 2018; Lindstrom et al., 2018). Studies with such differences had a wider age range of participants than the present study, which focuses on adolescents aged 13–15 years. The limited age range in the study may explain this finding. Boys felt more unsafe in public schools compared to private schools, possibly due to higher physical conflicts observed in public schools (Rana et al., 2020). Moreover, the prevalence of bullying and school violence involvement is generally higher among boys (Carbone-Lopez et al., 2010). This may explain why perceived school safety among girls showed no difference between public and private schools.

7.3.2.3 Within-country variance in perceived school safety

In many countries, there were large variations between schools regarding the probability of feeling unsafe at school. In contrast, the variations were relatively small in some countries such as Finland, suggesting a homogenous quality of education nationwide (Bruckauf & Chzhen, 2016). The difference in educational systems may have affected the variations within countries. For example, tuition fees are often much higher in private schools than in government-funded public schools. Especially in countries including both private and public schools, this financial factor may contribute to the variations. The results of this study emphasize the inequality in the quality of education across countries but also within countries. It is important to provide safe environments for all adolescents, regardless of their background or the type of schools they go to.

7.3.3 Help-seeking behavior in eight countries (Study III)

Key messages

- This study was the first large cross-national study of both informal and formal help-seeking behavior among adolescents in countries with widely differing income levels.
- Lower levels of unmet need in the Nordic countries may reflect their advanced and comprehensive welfare systems.
- Less help-seeking behavior among boys can be attributed to societal stigma, a preference for self-reliance, and reluctance to acknowledge one's own mental health difficulties.
- Promoting help-seeking behavior requires collective action to go beyond the mere provision of professional care.

7.3.3.1 Help-seeking behavior in the past 6-months across countries

Despite the high prevalence of mental disorders, formal care for adolescent mental health problems is severely lacking worldwide. Across all study countries, the majority of adolescents (nearly one in three) considered seeking help or sought help for mental health issues. However, the formal help-seeking was extremely low (< 1%) in middle-income countries, especially. In high-income countries, the rate of formal help-seeking ranged from 3–12% for girls and 1–3% for boys. In two Nordic countries (Norway, Finland), rates for boys were similar to that of other high-income countries (2–3%), while girls exhibited exceptionally high rates of seeking formal help compared to other countries (10–12%). This high rate of formal help-seeking among girls in Norway and Finland may reflect their well-developed public health services. For example, the ratio of child and adolescent psychiatrists per child is higher in European countries, particularly in Finland and Norway, compared to Asian countries (Sourander et al., 2018). Moreover, student welfare services are provided to all students in Finland and Norway by professionals with special competence in mental health issues, including school nurses, psychologists, and school counsellors, and there is a strong emphasis on well-being and mental health literacy in the school curriculum (Klomsten, 2019; Onnela et al., 2021; Skre et al., 2013).

Girls were more likely to consider getting help (girls, 21.9%; boys, 16.3%) and search for informal help (girls, 7.7%; boys, 4.8%) and formal help (girls, 4.9%; boys, 1.7%) than boys. This higher help-seeking behavior among girls is consistent with

findings from previous research showing that boys seek less help for mental health problems than girls (Häggström et al., 2022; Maiuolo et al., 2019), The gender difference in help-seeking among adolescents can be influenced by various factors related to how boys perceive and express their difficulties. In the sample, boys were less likely to perceive themselves as having difficulties, even though they had high scores on the SDQ. This reluctance to recognize personal difficulties may have contributed to them showing less help-seeking behavior. Additionally, societal norms could create a barrier for boys to seek help for mental health concerns such as societal stigma, leading boys to perceive seeking help as a sign of weakness (Sagar-Ouriaghli et al., 2019). There is an expectation for boys to limit the expression of their emotions in public, and they may adhere to a preference for self-reliance (Bosco et al., 2020). Understanding and challenging these stereotypes and encouraging a more open dialogue about mental health can contribute to breaking down barriers and promoting help-seeking behaviors, fostering a supportive environment for all adolescents (Sagar-Ouriaghli et al., 2020).

7.3.3.2 Unmet mental health need

Unmet mental health need was examined by calculating the formal help-seeking among adolescents with a high level of emotional and behavioral problems based on the SDQ total scores above the 90th percentile. Only 1–2% of adolescents with self-reported high emotional and behavioral problems sought formal help in middle-income countries. The rate was somewhat lower than that of previous research (Bean et al., 2006; Gorfinkel et al., 2023; Jansen et al., 2013; Kataoka et al., 2002; Mansbach-Kleinfeld et al., 2010). Most previous studies were conducted in a single high-income country. This may explain the difference, in part, as higher formal help-seeking was observed in high-income countries. The present study included China and India, which are the world's most populous countries. The result suggests that over 98% of such adolescents in most parts of the world may lack access to formal support for their mental health problems. High-income countries show higher help-seeking rates, but it was below 10% in most countries. In two Nordic countries (Finland and Norway), levels of unmet need were significantly smaller than in other countries among high-risk girls. Nearly one-third of girls with high levels of problems had sought formal help in those countries. The high formal help-seeking in these Nordic countries could reflect their robust mental health services, encompassing publicly funded health care, community-based care, diverse counseling, psychiatric services, and a focus on mental health promotion and prevention (Jenkins et al., 2010; Sourander et al., 2018). Surprisingly, despite the gender equality emphasis in those countries (OECD, 2018), Nordic girls sought help

significantly more than boys. In other counties, girls generally sought more formal help than boys, but the differences were not significant.

Too few children with mental health problems have access to the services they need, especially in lower-income countries. Lower-income countries face significant challenges, with limited specialized and primary mental health services available for children and adolescents (World Health Organization, 2021a). The limited mental health service provisions in lower-income countries are primarily due to resource constraints and challenges in service delivery including cultural stigma and lack of awareness (Eaton et al., 2011; Ojagbemi & Gureje, 2022; Rathod et al., 2017). There are stark disparities in mental health budgets, ranging from a mere 0.08 USD per capita in low-income countries to 52.73 USD per capita in high-income countries (World Health Organization, 2021a). There is a shortage of mental health professionals in lower-income nations. For example, there is only one or two child psychiatrists per over one million children in China and India (Sourander et al., 2018). Previous research has also reported a higher unmet need in countries with low mental health specialist ratios per population size (Kovess-Masfety et al., 2017).

7.3.3.3 Source of help

Despite the low rate of seeking formal help, many adolescents worldwide considered seeking assistance. A significant challenge in adolescent mental health is reducing the threshold for seeking help (Kendrick & Pilling, 2012). Efforts to address this challenge involve implementing interventions to reduce wait times for mental health services, providing low-threshold mental health services, and raising awareness to destigmatize seeking help (McLaughlin et al., 2023; Radez et al., 2021). Adolescents often fail to seek help due to their perceived stigma, embarrassment, and discrimination associated with mental illness (Gulliver et al., 2010; Radez et al., 2021; Velasco et al., 2020). Notably, informal help-seeking was much more common than formal in most countries, especially in lower-income countries. In such settings, relatives, peers, and teachers may often serve as the only available sources of mental health support for young people. For example, in China and Vietnam, informal help-seeking was over 14 times more common than formal. On the other hand, in high-income countries such as Finland, Israel, and Norway, the pattern was reversed, especially among girls, who were two to three times more likely to seek help from formal sources over informal. This higher formal help-seeking behavior observed in high-income countries could be attributed to relatively accessible mental health services offering various well-being services to students at school (Israelashvili, 2015; Kolouh-Söderlund et al., 2019). The main sources of formal help were psychologists, counsellors, and school nurses, and accessing help from medical

doctors was uncommon. It is important to consider the nature of the problem when evaluating sources of help. Informal sources may be more effective than formal help for certain issues. For instance, with bullying victimization, reporting to school authorities might yield more concrete solutions than solely seeking emotional support from a therapist. Furthermore, the current study did not explore the order in which students sought help, or the nature of the help ultimately received. Future research could investigate these questions to provide a more comprehensive understanding of student help-seeking behavior.

One striking finding is that informal sources of help such as teachers and relatives are the key sources of help for adolescents, especially in lower-income countries. The finding suggests the importance of providing mental health training for non-professionals in those countries (World Health Organization, 2021a). To promote help-seeking, collective efforts beyond formal care are crucial. It should involve mental health awareness campaigns and educational interventions to enhance mental health literacy, not only among adolescents, but also parents, teachers, and caregivers (Thornicroft, 2006). Instead of focusing solely on the development of formal help for children, empowering parents to strengthen their ability to support their children can yield more efficient, cost-effective, and enduring results in promoting children's well-being. Promising evidence supports the efficacy of parenting programs in enhancing children's emotional and behavioral adjustment (Barlow & Coren, 2018; Jeong et al., 2021). School and community-based programs to promote mental health literacy and social-emotional learning can empower adolescents to perceive seeking help as a strength rather than a weakness. For example, interventions such as Transitions (Wei et al., 2022), a mental health literacy intervention; MAKINGtheLINK (Lubman et al., 2020), a school-based program promoting formal mental health help; and Eliminating the Stigma of Differences (Link et al., 2020), a program to reduce stigma around seeking mental health care, have been shown to be effective in increasing help-seeking among adolescents.

7.3.4 Cyberbullying and suicide attempt in six countries (Study IV)

Key messages

- This was the first large cross-national study examining the correlation between cyberbullying and suicide attempt both in middle- and high-income countries.
- The significant association between cyber victimization and suicide attempt highlights the importance of addressing cyberbullying, not only traditional bullying.
- Emotional symptoms moderated the relationship between combined bullying victimization and suicide attempt.

7.3.4.1 Prevalence of suicide attempt and bullying victimization

The study showed that 4.8% of adolescents have attempted suicide, and the rate was higher among girls (6.3%) than boys (3.2%). The higher suicide attempt rates in girls are consistent with previous research showing that girls are more likely to engage in nonfatal suicidal behavior such as suicide attempt, while higher completed suicide rates have been observed among boys (Kaess et al., 2011; Rhodes, Boyle, et al., 2014). This notable difference in suicide rates between genders is known as the gender paradox (Canetto & Sakinofsky, 1998). The possible explanations for the gender disparity include more frequent use of social media in girls (Kelly et al., 2018), a higher cyberbullying rate in girls (Kim et al., 2018), and differences in suicide methods. Research indicates that social media use is more strongly linked to depression in girls, and cyberbullying is more closely associated with emotional problems in girls compared to boys (Kelly et al., 2018; Kim et al., 2018). Additionally, girls are more likely to use methods that are less immediately lethal, leading to lower fatality rates compared to males (Mergl et al., 2015; Rhodes, Lu, et al., 2014). Previous research showing the gender paradox is mostly based on studies conducted in high-income countries. A large international study including 90 countries examining suicide attempt among adolescents aged 13 to 17 years found no gender difference in the rate of suicide attempt (Campisi et al., 2020). Furthermore, a time trend study suggests a narrowing gap between girls' and boys' suicide rates, indicating that trends in suicide rates may evolve over time (Ruch et

al., 2019). These findings emphasize the need for future research to include lower-income countries when investigating suicidal behavior to clarify the trends.

The study revealed notable variations in the prevalence rates of bullying victimization across countries. The variation covered victimization by traditional bullying only, by cyberbullying only, and by a combination of these. The prevalence rate for the past 6-month cyber victimization was 5.4% (girls, 5.2%; boys, 5.7%) in the total sample, and it ranged from 1.3% in India to 6.5% in Indonesia. The wide variations in the prevalence of cyberbullying victimization found in this study were consistent with previous cross-national research (Athanasiou et al., 2018; Cosma et al., 2020; Craig et al., 2020; Görzig et al., 2017). For example, a GSHS study found that 4% of students experienced cyberbullying, and there was a significant variation in cyberbullying rates between countries (Cosma et al., 2020). The rates were somewhat lower than estimates by previous systematic reviews (Modecki et al., 2014; Zhu et al., 2021). The traditional bullying victimization rates ranged from 12.8% in China to 26.2% in Lithuania, with an overall prevalence of 19.2% (girls, 17.2%; boys, 21.3%). GSHS studies have reported a traditional bullying prevalence of around 30%, slightly higher than the findings of the present study (Biswas et al., 2020; Fleming & Jacobsen, 2010; Koyanagi et al., 2019). This difference might be due to the variations in research methods and the countries included in the studies. The prevalence rate for combined bullying victimization was 6.8% (girls, 6.9%; boys, 6.7%), and it ranged from 2.1% in India to 13.8% in Indonesia. There is limited previous research reporting the prevalence of combined victimization in a cross-national context. The prevalence reported in this thesis study was somewhat higher rates than in previous literature (Arnarsson et al., 2020; Cosma et al., 2020). This may reflect methodological differences: prior studies covered bullying experiences in the past couple of months, while the current thesis spans the past six months. The most prevalent form of bullying among adolescents was traditional victimization, consistent with previous research (Biswas et al., 2020; Modecki et al., 2014). The variations in prevalence rates may be attributed to variances in internet and smartphone availability, cultural dimensions, such as collectivism and individualism, varying levels of awareness, and socioeconomic inequalities at the national level (Due et al., 2009).

7.3.4.2 The association between suicide attempt and bullying victimization

The study found that adolescents facing combined victimization, both traditional and cyberbullying, have the highest risk of suicide attempt. This risk varied across countries, with the most significant odds observed in Lithuania and India (OR 15.61, 95% CI 10.61–22.94 in Lithuania, OR 9.25, 95% CI 3.85–22.25 in India). Notably,

combined victimization was associated with suicide attempt in all countries, except in Iran. This study supports evidence from previous observations (Azami & Taremian, 2020; Duong & Bradshaw, 2014; Peng et al., 2019). In three out of five nations, cyber victimization was linked to suicide attempt, highlighting the importance of addressing not only traditional bullying but also cyberbullying. This finding is consistent with existing literature indicating the suicide risk associated with cyber victimization (Benatov et al., 2022; Romero et al., 2018). For example, victims of cyberbullying are three times more likely to attempt suicide compared to non-bullied individuals (John et al., 2018). The present study indicates a dose-response effect, showing that increased victimization elevates the risk of suicide attempt across countries.

7.3.4.3 Moderation effect of emotional symptoms

The result also revealed that emotional symptoms moderate the link between combined bullying (both traditional and cyberbullying) victimization and suicide attempt. The result implies that the impact of combined bullying on suicide attempt is significantly influenced by the presence of pre-existing emotional symptoms such as depression. This finding is in line with previous research showing the moderation effect of emotional symptoms on the association between bullying victimization and suicide attempt (Kodish et al., 2016; Quintana-Orts et al., 2022). Therefore, interventions aimed at reducing suicide rates among bullied adolescents should also focus on identifying and treating underlying emotional disorders.

8 Summary/Conclusions

The thesis set out to broaden the knowledge of mental health problems and related behavior among adolescents with a specific focus on perceived school safety, help-seeking behavior, cyberbullying, and suicide attempt in a cross-national context. The focus in this thesis has been on 13 to 15-year-old adolescents in 13 countries representing economically very diverse societies. The present findings are particularly valuable in the production of globally comparable data that can guide preparation for future pandemics and other crises. Despite differences in outcome variables, some common trends and implications emerged from the studies.

First, the findings highlight important global differences in the mental health of adolescents. The proportion of adolescents who felt unsafe at school ranged from 11.5% in Finland to 69.8% in Japan for girls and from 7.7% in Norway to 68.2% in Japan for boys, highlighting the inequality in securing a safe educational environments for students across countries. There were large differences in help-seeking behavior across countries. In middle-income countries, only 1–2% of adolescents with high levels of mental health problems sought formal help, while in the high-income Nordic countries, almost one-third of girls with high-level problems sought formal help. There is a clear need for strategies to improve adolescent mental health worldwide. Notably, the prevalence of suicide attempt was almost four times higher in Iran, with the highest rate, compared to Indonesia with the lowest. While cyber victimization was found to be linked to a higher risk for suicide attempt than traditional bullying in Singapore and India, traditional bullying was associated with a higher risk in Lithuania. These findings provide insights into how the manifestation of risk factors can vary significantly across different countries. Policymakers and educators need to recognize these global differences to implement effective mental health policies and allocate resources where they are most needed. Moreover, it is important to be cautious when interpreting mental health study results, especially considering that a significant proportion of studies are conducted in high-income countries—studies in low- and middle-income countries are underrepresented in mental health research.

Second, there were complex interactions of social, psychological, and biological factors contributing to the mental health of adolescents. For example, feeling unsafe

at school was strongly associated with the level of care provided by teachers. The finding suggests that it is crucial to build care and trust with teachers to ensure safe educational environments for all. A secure and positive relationship between students and teachers can also create a backdrop for positive development and lead to the prevention of bullying. Furthermore, the association between bullying victimization and suicide attempt was influenced by emotional symptoms. This unique combination of factors influencing adolescents' mental health highlights the need for a holistic approach to mental health interventions. This includes promoting social inclusion and reducing stigma and discrimination relating to mental illness. Understanding these dynamics can inform intervention strategies and mental health policies. For example, the risk of attempting suicide was highest among the victims of combined cyberbullying and traditional bullying. Identifying risk factors and high-risk populations allows for targeted prevention and early intervention strategies.

Third, the studies revealed large variations in the prevalence of mental health problems across countries and within countries. The findings highlight the need for global efforts to address adolescent mental health needs with a stepped-care model. This model provides a framework for delivering and monitoring mental health care based on adolescents' needs. It involves a tiered system where the intensity of services is matched to the severity of mental health needs. It includes community and family support, targeted psychological interventions delivered by trained non-specialist workers, and targeted intervention by specialists for adolescents with the greatest needs. This model can optimize limited resources by providing a range of interventions, starting with less intensive options. It allows for timely and efficient mental health support, enhancing both efficacy and cost-effectiveness in preventing and treating mental health problems.

Fourth, the high prevalence of mental health problems among adolescents emphasizes the need for school-based, anti-bullying interventions and mental health promotion. School-based interventions are crucial as they offer a platform for reaching a substantial number of students. Given that most adolescents attend school, these interventions provide a centralized and accessible location for addressing mental health concerns around the world. These interventions can serve as preventive measures by identifying and addressing mental health concerns early on. By reaching children at risk and providing timely support, school-based programs can contribute to the prevention of more severe mental health issues. Mental health promotion should include evidence-based initiatives such as psychoeducation, social-emotional learning, cognitive-behavioral therapy, and mental health literacy programs to prevent mental health issues by providing adolescents with information and skills to better understand and manage their mental health.

Lastly, the lack of trained professionals to address the mental health of adolescents is one of the most significant challenges, even in countries with publicly funded health care (Patel et al., 2013). Digitalized mental health interventions developed by professionals can bridge those gaps between the increasing demand for care and limited available resources for the mental health of adolescents. These technologies can empower individuals to take control of their mental well-being, promoting a proactive approach to mental health. It is crucial that these digital interventions are evidence-based to ensure their effectiveness, and easy accessibility is crucial for widespread use and impact.

8.1 Implications for future research

The existing knowledge on mental health problems among adolescents in a cross-national context, especially including low- and middle-income countries, is limited. There are not enough large-scale, methodologically sound cross-national studies on the topics involved. For example, future studies are needed to provide clear definitions of bullying and perceived school safety to improve the reliability of findings. Although informal sources of help, such as teachers and family, were widely used key sources of help in many countries, most previous studies have only focused on the use of mental health care provided by mental health professionals. To have a better understanding of help-seeking behavior among adolescents, future studies should examine both informal and formal sources of help. It is also important for future studies to use valid measurements and provide clear information about the scoring and interpretation of scales. Future research is needed to overcome challenges in cross-national research on mental health such as cultural validation of measurement tools developed in high-income Western countries, the lack of funding to conduct mental health research in lower-income countries, technical resources, and publication bias.

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References

Achenbach, T. M., Rescorla, L. A., & Ivanova, M. Y. (2012). International Epidemiology of Child and Adolescent Psychopathology I: Diagnoses, Dimensions, and Conceptual Issues. *Journal of the American Academy of Child and Adolescent Psychiatry*, *51*(12), 1261–1272. https://doi.org/10.1016/j.jaac.2012.09.010

Addis, M. E., & Mahalik, J. R. (2003). Men, Masculinity, and the Contexts of Help Seeking. *The American Psychologist*, *58*(1), 5–14. https://doi.org/10.1037/0003-066X.58.1.5

Albdour, M., & Krouse, H. J. (2014). Bullying and Victimization Among African American Adolescents: A Literature Review. *Journal of Child and Adolescent Psychiatric Nursing*, *27*(2), 68–82. https://doi.org/10.1111/jcap.12066

Aldridge, J. M., & McChesney, K. (2018). The relationships between school climate and adolescent mental health and wellbeing: A systematic literature review. *International Journal of Educational Research*, *88*, 121–145. https://doi.org/10.1016/j.ijer.2018.01.012

Alonso, J., Codony, M., Kovess, V., Angermeyer, M. C., Katz, S. J., Haro, J. M., De Girolamo, G., De Graaf, R., Demyttenaere, K., Vilagut, G., Almansa, J., Lépine, J. P., & Brugha, T. S. (2007). Population level of unmet need for mental healthcare in Europe. *British Journal of Psychiatry*, *190*(4), 299–306. https://doi.org/10.1192/bjp.bp.106.022004

Al-Yagon, M., & Mikulincer, M. (2006). Children's Appraisal of Teacher as a Secure Base and Their Socio-Emotional and Academic Adjustment in Middle Childhood. *Research in Education (Manchester)*, *75*(1), 1–18. https://doi.org/10.7227/RIE.75.1

Angold, A., Messer, S. C., Stangl, D., Farmer, E. M., Costello, E. J., & Burns, B. J. (1998). Perceived parental burden and service use for child and adolescent psychiatric disorders. *American Journal of Public Health*, *88*(1), 75–80. https://doi.org/10.2105/AJPH.88.1.75

Arnarsson, A., Nygren, J., Nyholm, M., Torsheim, T., Augustine, L., Bjereld, Y., Markkanen, I., Schnohr, C. w., Rasmussen, M., Nielsen, L., & Bendtsen, P. (2020). Cyberbullying and traditional bullying among Nordic adolescents and their impact on life satisfaction. *Scandinavian Journal of Public Health*, *48*(5), 502–510. https://doi.org/10.1177/1403494818817411

Arora, P. G., & Wheeler, L. A. (2018). Depressive symptoms in Mexican-origin adolescents: Interrelations between school and family contexts. *Contemporary School Psychology*, *22*(3), 266–278. https://doi.org/10.1007/s40688-017-0150-1

Athanasiou, K., Melegkovits, E., Andrie, E. K., Magoulas, C., Tzavara, C. K., Richardson, C., Greydanus, D., Tsolia, M., & Tsitsika, A. K. (2018). Cross-national aspects of cyberbullying victimization among 14-17-year-old adolescents across seven European countries. *BMC Public Health*, *18*(1), 800–800. https://doi.org/10.1186/s12889-018-5682-4

Atteberry-Ash, B., Kattari, S. K., Speer, S. R., Guz, S., & Kattari, L. (2019). School safety experiences of high school youth across sexual orientation and gender identity. *Children & Youth Services Review*, *104*, 104403. https://doi.org/10.1016/j.childyouth.2019.104403

Azami, M. S., & Taremian, F. (2020). Victimization in traditional and cyberbullying as risk factors for substance use, self-harm and suicide attempts in high school students. *Scandinavian Journal of Child and Adolescent Psychiatry and Psychology*, *8*(1), 101–109. https://doi.org/10.21307/sjcapp-2020-010

Bachman, R., Gunter, W. D., & Bakken, N. W. (2011). Predicting feelings of school safety for lower, middle, and upper school students: A gender specific analysis. *Applied Psychology in Criminal Justice*, *7*(2), 59–76.

Baranne, M. L., & Falissard, B. (2018). Global burden of mental disorders among children aged 5-14 years. *Child and Adolescent Psychiatry and Mental Health*, *12*(1), 19–19. https://doi.org/10.1186/s13034-018-0225-4

Barlow, J., & Coren, E. (2018). The Effectiveness of Parenting Programs: A Review of Campbell Reviews. *Research on Social Work Practice*, *28*(1), 99–102. https://doi.org/10.1177/1049731517725184

Barzilay, S., Brunstein Klomek, A., Apter, A., Carli, V., Wasserman, C., Hadlaczky, G., Hoven, C. W., Sarchiapone, M., Balazs, J., Kereszteny, A., Brunner, R., Kaess, M., Bobes, J., Saiz, P., Cosman, D., Haring, C., Banzer, R., Corcoran, P., Kahn, J.-P., … Wasserman, D. (2017). Bullying Victimization and Suicide Ideation and Behavior Among Adolescents in Europe: A 10-Country Study. *Journal of Adolescent Health*, *61*(2), 179–186. https://doi.org/10.1016/j.jadohealth.2017.02.002

Bauman, S., & del Rio, A. (2006). Preservice Teachers' Responses to Bullying Scenarios: Comparing Physical, Verbal, and Relational Bullying. *Journal of Educational Psychology*, *98*(1), 219–231. https://doi.org/10.1037/0022-0663.98.1.219

Bauman, S., Toomey, R. B., & Walker, J. L. (2013). Associations among bullying, cyberbullying, and suicide in high school students. *Journal of Adolescence*, *36*(2), 341–350. https://doi.org/10.1016/j.adolescence.2012.12.001

Bean, T., Eurelings-Bontekoe, E., Mooijaart, A., & Spinhoven, P. (2006). Factors associated with mental health service need and utilization among unaccompanied refugee adolescents. *Administration and Policy in Mental Health and Mental Health Services Research*, *33*(3), 342–355. https://doi.org/10.1007/s10488-006-0046-2

Bear, G. G., Yang, C., Chen, D., He, X., Xie, J.-S., & Huang, X. (2018). Differences in School Climate and Student Engagement in China and the United States. *School Psychology Quarterly*, *33*(2), 323–335. https://doi.org/10.1037/spq0000247

Beghi, M., Rosenbaum, J. F., Cerri, C., & Cornaggia, C. M. (2013). Risk factors for fatal and nonfatal repetition of suicide attempts: a literature review. *Neuropsychiatric Disease and Treatment*, *9*, 1725–1736. https://doi.org/10.2147/NDT.S40213

Benatov, J., Brunstein Klomek, A., & Chen-Gal, S. (2022). Bullying perpetration and victimization associations to suicide behavior: a longitudinal study. *European Child & Adolescent Psychiatry*, *31*(9), 1353–1360. https://doi.org/10.1007/s00787-021-01776-9

Bidonde, J., Meneses-Echavez, J. F., Hafstad, E., Brunborg, G. S., & Bang, L. (2023). Methods, strategies, and incentives to increase response to mental health surveys among adolescents: a systematic review. *BMC Medical Research Methodology*, *23*(1), 1–270. https://doi.org/10.1186/s12874-023-02096-z

Biswas, T., Scott, J. G., Munir, K., Thomas, H. J., Huda, M. M., Hasan, M. M., David de Vries, T., Baxter, J., & Mamun, A. A. (2020). Global variation in the prevalence of bullying victimisation amongst adolescents: Role of peer and parental supports. *EClinicalMedicine*, *20*. https://doi.org/10.1016/j.eclinm.2020.100276

Blatchford, P., Bassett, P., & Brown, P. (2011). Examining the effect of class size on classroom engagement and teacher–pupil interaction: Differences in relation to pupil prior attainment and primary vs. secondary schools. *Learning and Instruction*, *21*(6), 715–730. https://doi.org/10.1016/j.learninstruc.2011.04.001

Bosco, N., Giaccherini, S., & Meringolo, P. (2020). A gender perspective about young people's seeking help. *Journal of Prevention & Intervention in the Community*, *48*(2), 132–146. https://doi.org/10.1080/10852352.2019.1624353

Bostwick, J. M., Pabbati, C., Geske, J. R., & McKean, A. J. (2016). Suicide attempt as a risk factor for completed suicide: Even more lethal than we knew. *American Journal of Psychiatry*, *173*(11), 1094–1100. https://doi.org/10.1176/appi.ajp.2016.15070854

Bottino, S. M. B., Bottino, C. M. C., Regina, C. G., Correia, A. V. L., & Ribeiro, W. S. (2015). Cyberbullying and adolescent mental health: systematic review. *Cadernos de Saúde Pública*, *31*(3), 463–475. https://doi.org/10.1590/0102-311X00036114

Bowser, J., Larson, J. D., Bellmore, A., Olson, C., & Resnik, F. (2018). Bullying Victimization Type and Feeling Unsafe in Middle School. *Journal of School Nursing*, *34*(4), 256–262. https://doi.org/10.1177/1059840518760983

Brislin, R. W. (1970). Back-Translation for Cross-Cultural Research. *Journal of Cross-Cultural Psychology*, *1*(3), 185–216. https://doi.org/10.1177/135910457000100301

Bronfenbrenner, U. (1978). The Social Role of the Child in Ecological Perspective / Die soziale Rolle des Kindes in ökologischer Perspektive. *Zeitschrift Für Soziologie*, *7*(1), 4–20. https://doi.org/10.1515/zfsoz-1978-0101

Bronfenbrenner, U. (1989). Ecological systems theory. In R. Vasta (Ed.), *Six Theories of Child Development: Revised Formulations and Current Issues* (pp. 185–246). Jessica Kingsley Publishers.

Bruckauf, Z., & Chzhen, Y. (2016). *Education for All?: Measuring Inequality of Educational Outcomes Among 15-Year-Olds Across 39 Industrialized Nations*. United Nations. https://doi.org/10.18356/7b8fab55-en

Brunner, R., Kaess, M., Parzer, P., Fischer, G., Carli, V., Hoven, C. W., Wasserman, C., Sarchiapone, M., Resch, F., Apter, A., Balazs, J., Barzilay, S., Bobes, J., Corcoran, P., Cosmanm, D., Haring, C., Iosuec, M., Kahn, J.-P., Keeley, H., … Wasserman, D. (2014). Life-time prevalence and psychosocial correlates of adolescent direct self-injurious behavior: A comparative study of findings in 11 European countries. *Journal of Child Psychology and Psychiatry*, *55*(4), 337–348. https://doi.org/10.1111/jcpp.12166

Brusseau, T. A., & Burns, R. D. (2021). Associations of Physical Activity, School Safety, and Non-Prescription Steroid Use in Adolescents: A Structural Equation Modeling Approach. *International Journal of Environmental Research and Public Health*, *19*(1), 87. https://doi.org/10.3390/ijerph19010087

Buil, I., De Chernatony, L., & Martínez, E. (2012). Methodological issues in cross-cultural research: An overview and recommendations. *Journal of Targeting, Measurement and Analysis for Marketing*, *20*(3–4), 223–234. https://doi.org/10.1057/jt.2012.18

Burstein, B., Agostino, H., & Greenfield, B. (2019). Suicidal Attempts and Ideation Among Children and Adolescents in US Emergency Departments, 2007-2015. *JAMA Pediatrics*, *173*(6), 598–600. https://doi.org/10.1001/jamapediatrics.2019.0464

Campbell, M., McKenzie, J. E., Sowden, A., Katikireddi, S. V., Brennan, S. E., Ellis, S., Hartmann-Boyce, J., Ryan, R., Shepperd, S., Thomas, J., Welch, V., & Thomson, H. (2020). Synthesis without meta-analysis (SWiM) in systematic reviews: reporting guideline. *BMJ*, *368*, l6890–l6890. https://doi.org/10.1136/bmj.l6890

Campisi, S. C., Carducci, B., Akseer, N., Zasowski, C., Szatmari, P., & Bhutta, Z. A. (2020). Suicidal behaviours among adolescents from 90 countries: a pooled analysis of the global school-based student health survey. *BMC Public Health*, *20*(1), 1102–1102. https://doi.org/10.1186/s12889-020-09209-z

Canetto, S. S., & Sakinofsky, I. (1998). The Gender Paradox in Suicide. *Suicide & Life-Threatening Behavior*, *28*(1), 1–23. https://doi.org/10.1111/j.1943-278X.1998.tb00622.x

Carbone-Lopez, K., Esbensen, F.-A., & Brick, B. T. (2010). Correlates and Consequences of Peer Victimization: Gender Differences in Direct and Indirect Forms of Bullying. *Youth Violence and Juvenile Justice*, *8*(4), 332–350. https://doi.org/10.1177/1541204010362954

Cénat, J. M., Blais, M., Hébert, M., Lavoie, F., & Guerrier, M. (2015). Correlates of bullying in Quebec high school students: The vulnerability of sexual-minority youth. *Journal of Affective Disorders*, *183*, 315–321. https://doi.org/10.1016/j.jad.2015.05.011

Center for Homeland Defense and Security. (2020). *K-12 school shooting database*. https://www.chds.us/ssdb/incidents-by-year/.

Chellamuthu, S., & Kadhiravan, D. (2017). Academic Stress and Mental Health Among High School Students. *Indian Journal of Applied Research*, *7*(5), 404–406.

Child Outcomes Research Consortium. (n.d.). *Strengths and Difficulties Questionnaire (SDQ)*. Retrieved January 11, 2024, from https://www.corc.uk.net/outcome-experience-measures/strengths-and-difficulties-questionnaire-sdq/

Cook, C. R., Williams, K. R., Guerra, N. G., Kim, T. E., & Sadek, S. (2010). Predictors of Bullying and Victimization in Childhood and Adolescence. *School Psychology Quarterly*, *25*(2), 65–83. https://doi.org/10.1037/a0020149

Cortina, K. S., Arel, S., & Smith-Darden, J. P. (2017). School Belonging in Different Cultures: The Effects of Individualism and Power Distance. *Frontiers in Education*, *2*, 56. https://doi.org/10.3389/feduc.2017.00056

Cosma, A., Walsh, S. D., Chester, K. L., Callaghan, M., Molcho, M., Craig, W., & Pickett, W. (2020). Bullying victimization: time trends and the overlap between traditional and cyberbullying across countries in Europe and North America. *International Journal of Public Health*, *65*(1), 75–85. https://doi.org/10.1007/s00038-019-01320-2

Craig, W., Boniel-Nissim, M., King, N., Walsh, S. D., Boer, M., Donnelly, P. D., Harel-Fisch, Y., Malinowska-Cieślik, M., Gaspar de Matos, M., Cosma, A., Van den Eijnden, R., Vieno, A., Elgar, F. J., Molcho, M., Bjereld, Y., & Pickett, W. (2020). Social Media Use and Cyber-Bullying: A Cross-National Analysis of Young People in 42 Countries. *Journal of Adolescent Health*, *66*(6), S100–S108. https://doi.org/10.1016/j.jadohealth.2020.03.006

Crosby, A., Ortega, L., & Melanson, C. (2011). *Self-directed violence surveillance; uniform definitions and recommended data elements*. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. https://stacks.cdc.gov/view/cdc/11997/cdc_11997_DS1.pdf

Crothers, L. M., & Kolbert, J. B. (2004). Comparing Middle School Teachers' and Students' Views on Bullying and Anti-Bullying Interventions. *Journal of School Violence*, *3*(1), 17–32. https://doi.org/10.1300/J202v03n01_03

Dake, J. A., Price, J. H., & Telljohann, S. K. (2003). The Nature and Extent of Bullying at School. *The Journal of School Health*, *73*(5), 173–180. https://doi.org/10.1111/j.1746-1561.2003.tb03599.x

Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 1–44. https://doi.org/10.1080/10888691.2018.1537791

Demyttenaere, K., Bruffaerts, R., Posada-Villa, J., Gasquet, I., Kovess, V., Lepine, J., Angermeyer, M., Bernert, S., de Girolamo, G., Morosini, P., Polidori, G., Kikkawa, T., Kawakami, N., Ono, Y., Takeshima, T., Uda, H., Karam, E., Fayyad, J., Karam, A., … Chatterji, S. (2004). Prevalence, Severity, and Unmet Need for Treatment of Mental Disorders in the World Health Organization World Mental Health Surveys. *JAMA*, *291*(21), 2581–2590. https://doi.org/10.1001/jama.291.21.2581

Dewey, C. (2006). *School violence: Fears versus facts*. Lawrence Erlbaum Associates Publishers.

Docherty, M., Sweeten, G., Craig, T., Yang, V. J. H., Decrop, R., Beardslee, J., Piquero, A., Clark, C., & Pardini, D. (2020). Prevalence and Risk Factors Associated with Carrying a Gun to School during Adolescence: A Statewide Study of Middle and High School Students. *Journal of School Violence*, *19*(1), 35–47. https://doi.org/10.1080/15388220.2019.1703718

Due, P., Merlo, J., Harel-Fisch, Y., Damsgaard, M. T., Holstein, B. E., Hetland, J., Currie, C., Gabhainn, S. N., De Matos, M. G., & Lynch, J. (2009). Socioeconomic inequality in exposure to bullying during adolescence: A comparative, cross-sectional, multilevel study in 35 countries. *American Journal of Public Health*, *99*(5), 907–914. https://doi.org/10.2105/AJPH.2008.139303

Duong, J., & Bradshaw, C. (2014). Associations Between Bullying and Engaging in Aggressive and Suicidal Behaviors Among Sexual Minority Youth: The Moderating Role of Connectedness. *The Journal of School Health*, *84*(10), 636–645. https://doi.org/10.1111/josh.12196

Earnest, A. A., & Brady, S. S. (2016). Dating Violence Victimization Among High School Students in Minnesota. *Journal of Interpersonal Violence*, *31*(3), 383–406. https://doi.org/10.1177/0886260514555863

Eaton, J., McCay, L., Semrau, M., Chatterjee, S., Baingana, F., Araya, R., Ntulo, C., Thornicroft, G., & Saxena, S. (2011). Global Mental Health 4: Scale up of services for mental health in low-income and middle-income countries. *The Lancet (British Edition)*, *378*(9802), 1592. https://doi.org/10.1016/S0140-6736(11)60891-X

Eigenhuis, E., Waumans, R. C., Muntingh, A. D. T., Westerman, M. J., van Meijel, M., Batelaan, N. M., & van Balkom, A. J. L. M. (2021). Facilitating factors and barriers in help-seeking behaviour in adolescents and young adults with depressive symptoms: A qualitative study. *PloS One*, *16*. https://doi.org/10.1371/journal.pone.0247516

Eisenberg, M. E., Ackard, D. M., & Resnick, M. D. (2007). Protective factors and suicide risk in adolescents with a history of sexual abuse. *The Journal of Pediatrics*, *151*(5), 482–487. https://doi.org/10.1016/j.jpeds.2007.04.033

End Corporal Punishment. (2023). *Ending corporal punishment in schools to transform education for all children*. https://www.end-violence.org/sites/default/files/paragraphs/download/Ending%20corporal%20punishment%20in%20schools%20to%20transform%20education%20for%20all%20children%20%284%29.pdf

Eugene, D. R. (2020). A Multilevel Model for Examining Perceptions of School Climate, Socioeconomic Status, and Academic Achievement for Secondary School Students. *Journal of Education for Students Placed at Risk*, *25*(1), 79–99. https://doi.org/10.1080/10824669.2019.1670067

Finkelhor, D., Turner, H., & LaSelva, D. (2021). Receipt of Behavioral Health Services Among US Children and Youth With Adverse Childhood Experiences or Mental Health Symptoms. *JAMA Network Open*, *4*(3), e211435–e211435. https://doi.org/10.1001/jamanetworkopen.2021.1435

Fleming, L. C., & Jacobsen, K. H. (2010). Bullying among middle-school students in low and middle income countries. *Health Promotion International*, *25*(1), 73–84. https://doi.org/10.1093/HEAPRO/DAP046

Fredrick, S. S., & Demaray, M. K. (2018). Peer victimization and suicidal ideation: The role of gender and depression in a school-based sample. *Journal of School Psychology*, *67*, 1–15. https://doi.org/10.1016/j.jsp.2018.02.001

Garnett, B. R., & Brion-Meisels, G. (2018). Exploring the Utility of Theory-Informed Methodological Approaches in Youth Harassment Research. *Journal of Interpersonal Violence*. https://doi.org/10.1177/0886260518803607

Gase, L. N., Gomez, L. M., Kuo, T., Glenn, B. A., Inkelas, M., & Ponce, N. A. (2017). Relationships Among Student, Staff, and Administrative Measures of School Climate and Student Health and Academic Outcomes. *The Journal of School Health*, *87*(5), 319–328. https://doi.org/10.1111/josh.12501

Gastic, B. (2011). Metal Detectors and Feeling Safe at School. *Education and Urban Society*, *43*(4), 486–498. https://doi.org/10.1177/0013124510380717

Ghafari, M., Nadi, T., Bahadivand-Chegini, S., & Doosti-Irani, A. (2022). Global prevalence of unmet need for mental health care among adolescents: A systematic review and meta-analysis. *Archives of Psychiatric Nursing*, *36*, 1–6. https://doi.org/10.1016/j.apnu.2021.10.008

Ghandour, R. M., Sherman, L. J., Vladutiu, C. J., Ali, M. M., Lynch, S. E., Bitsko, R. H., & Blumberg, S. J. (2019). Prevalence and Treatment of Depression, Anxiety, and Conduct Problems in US Children. *The Journal of Pediatrics*, *206*, 256-267.e3. https://doi.org/10.1016/j.jpeds.2018.09.021

Gini, G., Marino, C., Pozzoli, T., & Holt, M. (2018). Associations between peer victimization, perceived teacher unfairness, and adolescents' adjustment and well-being. *Journal of School Psychology*, *67*, 56–68. https://doi.org/10.1016/j.jsp.2017.09.005

Glew, G. M., Fan, M.-Y., Katon, W., & Rivara, F. P. (2008). Bullying and School Safety. *The Journal of Pediatrics*, *152*(1), 123-128.e1. https://doi.org/10.1016/j.jpeds.2007.05.045

Goldweber, A., Waasdorp, T. E., & Bradshaw, C. P. (2013). Examining the link between forms of bullying behaviors and perceptions of safety and belonging among secondary school students. *Journal of School Psychology*, *51*(4), 469–485. https://doi.org/10.1016/j.jsp.2013.04.004

Gong, R. (2016). *A cross-cultural comparison of US and Chinese students' perceptions of school safety* [Middle Tennessee State University]. http://jewlscholar.mtsu.edu/handle/mtsu/5001

Gonzálvez, C., Bacon, V., & Kearney, C. A. (2023). Systematic and evaluative review of school climate instruments for students, teachers, and parents. *Psychology in the Schools*, *60*(6), 1781–1836. https://doi.org/10.1002/pits.22838

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry*, *38*(5), 581–586. https://doi.org/10.1111/j.1469-7610.1997.tb01545.x

Goodman, R. (2001). Psychometric Properties of the Strengths and Difficulties Questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry*, *40*(11), 1337–1345. https://doi.org/10.1097/00004583-200111000-00015

Gorfinkel, L. R., Snell, G., Long, D., Del Casal, M., Wu, J., Schonert-Reichl, K., Guhn, M., & Samji, H. (2023). Access to mental health support, unmet need and preferences among adolescents during the first year of the COVID-19 pandemic. *Health Promotion and Chronic Disease Prevention in Canada: Research, Policy and Practice*, *43*(4), 182–190. https://doi.org/10.24095/HPCDP.43.4.03

Görzig, A., Milosevic, T., & Staksrud, E. (2017). Cyberbullying Victimization in Context: The Role of Social Inequalities in Countries and Regions. *Journal of Cross-Cultural Psychology*, *48*(8), 1198–1215. https://doi.org/10.1177/0022022116686186

Grazia, V., & Molinari, L. (2020). School climate multidimensionality and measurement: a systematic literature review. *Research Papers in Education*, 1–27. https://doi.org/10.1080/02671522.2019.1697735

Greenhalgh, T., & Peacock, R. (2005). Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources. *BMJ*, *331*(7524), 1064–1065. https://doi.org/10.1136/bmj.38636.593461.68

Griffin, A. (2017). Adolescent Neurological Development and Implications for Health and Well-Being. *Healthcare (Basel)*, *5*(4), 62. https://doi.org/10.3390/healthcare5040062

Grinshteyn, E., & Tony Yang, Y. (2017). The Association Between Electronic Bullying and School Absenteeism Among High School Students in the United States. *The Journal of School Health*, *87*(2), 142–149. https://doi.org/10.1111/josh.12476

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. *BMC Psychiatry*, *10*(1), 113–113. https://doi.org/10.1186/1471-244X-10-113

Hafekost, J., Lawrence, D., Boterhoven de Haan, K., Johnson, S. E., Saw, S., Buckingham, W. J., Sawyer, M. G., Ainley, J., & Zubrick, S. R. (2016). Methodology of Young Minds Matter: the second Australian Child and Adolescent Survey of Mental Health and Wellbeing. *Australian and New Zealand Journal of Psychiatry*, *50*(9), 866–875. https://doi.org/10.1177/0004867415622270

Häggström Westberg, K., Nyholm, M., Nygren, J. M., & Svedberg, P. (2022). Mental Health Problems among Young People—A Scoping Review of Help-Seeking. *International Journal of Environmental Research and Public Health*, *19*(3). https://doi.org/10.3390/ijerph19031430

Hamada, S., Kaneko, H., Yamawaki, A., Ogura, M., Maezono, J., Sillanmäki, L., Sourander, A., & Honjo, S. (2018). Association between bullying behavior, perceived school safety, and self-cutting: a Japanese population-based school survey. *Child & Adolescent Mental Health*, *23*(3), 141–147. https://doi.org/10.1111/camh.12200

Hamm, M. P., Newton, A. S., Chisholm, A., Shulhan, J., Milne, A., Sundar, P., Ennis, H., Scott, S. D., & Hartling, L. (2015). Prevalence and Effect of Cyberbullying on Children and Young People: A Scoping Review of Social Media Studies. *JAMA Pediatrics*, *169*(8), 770–777. https://doi.org/10.1001/jamapediatrics.2015.0944

Han, Z., Fu, M., Liu, C., & Guo, J. (2018). Bullying and Suicidality in Urban Chinese Youth: The Role of Teacher-Student Relationships. *Cyberpsychology, Behavior and Social Networking*, *21*(5), 287–293. https://doi.org/10.1089/cyber.2017.0484

Havik, T., Bru, E., & Ertesvåg, S. K. (2015). School factors associated with school refusal- and truancy-related reasons for school non-attendance. *Social Psychology of Education*, *18*(2), 221–240. https://doi.org/10.1007/s11218-015-9293-y

Hawton, K., Bergen, H., Waters, K., Ness, J., Cooper, J., Steeg, S., & Kapur, N. (2012). Epidemiology and nature of self-harm in children and adolescents: findings from the multicentre study of self-harm in England. *European Child & Adolescent Psychiatry*, *21*(7), 369–377. https://doi.org/10.1007/s00787-012-0269-6

Helenius, J., & Kivimäki, H. (2023). *Well-being of children and young people – School Health Promotion study 2023*. Finnish Institute for Health and Welfare. https://urn.fi/URN:NBN:fi-fe20230913124233

Hepp, U., Stulz, N., Unger-Köppel, J., & Ajdacic-Gross, V. (2012). Methods of suicide used by children and adolescents. *European Child & Adolescent Psychiatry*, *21*(2), 67–73. https://doi.org/10.1007/s00787-011-0232-y

Hinduja, S., & Patchin, J. W. (2010). Bullying, Cyberbullying, and Suicide. *Archives of Suicide Research*, *14*(3), 206–221. https://doi.org/10.1080/13811118.2010.494133

Hofstede, G. (1986). Cultural differences in teaching and learning. *International Journal of Intercultural Relations*, *10*(3), 301–320. https://doi.org/10.1016/0147-1767(86)90015-5

Hofstede, G., Minkov, M., & Hofstede, G. J. (2010). *Cultures and organizations: software of the mind*. McGraw-Hill.

Holm, M. E., Kiviruusu, O., Helenius, J., & Sainio, P. (2024). Population-level changes in anxiety and depression and the unmet need for support at school among adolescents with and without disabilities, 2017-2021: The effects of the COVID-19 pandemic. *Disability and Health Journal*, *17*(1). https://doi.org/10.1016/j.dhjo.2023.101540

Hong, J., Merrin, G., Crosby, S., Jozefowicz, D., Lee, J., & Allen-Meares, P. (2016). Individual and Contextual Factors Associated with Immigrant Youth Feeling Unsafe in School: A Social-Ecological Analysis. *Journal of Immigrant & Minority Health*, *18*(5), 996–1006. https://doi.org/10.1007/s10903-015-0242-9

Hong, S., & Eamon, K. (2012). Students' perceptions of unsafe schools: An ecological systems analysis. *Journal of Child and Family Studies*, *21*(3), 428–438. https://doi.org/10.1007/s10826-011-9494-8

Institute for Economics & Peace. (2020). *Global Peace Index 2020: Measuring Peace in a Complex World*. http://visionofhumanity.org/reports

Islam, I., Khanam, R., & Kabir, E. (2020). The use of mental health services by Australian adolescents with mental disorders and suicidality: Findings from a nationwide cross-sectional survey. *PloS One*, *15*(4). https://doi.org/10.1371/journal.pone.0231180

Islam, S., Sujan, S. H., Tasnim, R., Ferdous, M. Z., Masud, J. H. B., Kundu, S., Mosaddek, A. S. M., Choudhuri, S. K., Kircaburun, K., & Griffiths, M. D. (2020). Problematic internet use among young and adult population in Bangladesh: Correlates with lifestyle and online activities during the COVID-19 pandemic. *Addictive Behaviors Reports*, *12*. https://doi.org/10.1016/j.abrep.2020.100311

Israelashvili, M. (2015). School mental health in Israel [Bookitem]. In *School Mental Health* (pp. 125–138). Cambridge University Press. https://doi.org/10.1017/CBO9781107284241.012

Janosz, M., Archambault, I., Pagani, L. S., Pascal, S., Morin, A. J. S., & Bowen, F. (2008). Are There Detrimental Effects of Witnessing School Violence in Early Adolescence?. *Journal of Adolescent Health*, *43*(6), 600–608. https://doi.org/10.1016/j.jadohealth.2008.04.011

Janosz, M., Brière, F. N., Galand, B., Pascal, S., Archambault, I., Brault, M.-C., Moltrecht, B., & Pagani, L. S. (2018). Witnessing violence in early secondary school predicts subsequent student impairment. *Journal of Epidemiology and Community Health*, *72*(12), 1117–1123. https://doi.org/10.1136/jech-2018-211203

Jansen, D. E. M. C., Wiegersma, P., Ormel, J., Verhulst, F. C., Vollebergh, W. A. M., & Reijneveld, S. A. (2013). Need for mental health care in adolescents and its determinants: The TRAILS Study. *European Journal of Public Health*, *23*(2), 236–241. https://doi.org/10.1093/EURPUB/CKS087

Jenkins, R., Meltzer, H., Jacobs, B., & McDaid, D. (2010). Child and adolescent mental health: infrastructure, policies and practices in England: the CAMHEE project. *Journal of Public Mental Health*, *9*(1), 26–39. https://doi.org/10.5042/jpmh.2010.0161

Jeong, J., Franchett, E. E., de Oliveira, C. V. R., Rehmani, K., & Yousafzai, A. K. (2021). Parenting interventions to promote early child development in the first three years of life: A global systematic review and meta-analysis. *PLoS Medicine*, *18*(5), e1003602–e1003602. https://doi.org/10.1371/journal.pmed.1003602

John, A., Glendenning, A. C., Marchant, A., Montgomery, P., Stewart, A., Wood, S., Lloyd, K., & Hawton, K. (2018). Self-Harm, Suicidal Behaviours, and Cyberbullying in Children and Young People: Systematic Review. *Journal of Medical Internet Research*, *20*(4). https://doi.org/10.2196/jmir.9044

Kaess, M., Parzer, P., Haffner, J., Steen, R., Roos, J., Klett, M., Brunner, R., & Resch, F. (2011). Explaining gender differences in non-fatal suicidal behaviour among adolescents: a population-based study. *BMC Public Health*, *11*(1), 597–597. https://doi.org/10.1186/1471-2458-11-597

Kapi, A., Veltsista, A., Sovio, U., Jarvelin, M.-R., & Bakoula, C. (2007). Comparison of self-reported emotional and behavioural problems in adolescents from Greece and Finland. *Acta Paediatrica*, *96*(8), 1174–1179. https://doi.org/10.1111/j.1651-2227.2007.00370.x

Karagianni, P. (2016). Youth mental health context in Greece. *The European Health Psychologist* , *18*(3), 119–122.

Kataoka, S. H., Zhang, L., & Wells, K. B. (2002). Unmet Need for Mental Health Care Among U.S. Children: Variation by Ethnicity and Insurance Status. *The American Journal of Psychiatry*, *159*(9), 1548–1555. https://doi.org/10.1176/appi.ajp.159.9.1548

Kelly, Y., Zilanawala, A., Booker, C., & Sacker, A. (2018). Social Media Use and Adolescent Mental Health: Findings From the UK Millennium Cohort Study. *EClinicalMedicine*, *6*, 59–68. https://doi.org/10.1016/j.eclinm.2018.12.005

Kendrick, T., & Pilling, S. (2012). Common mental health disorders--identification and pathways to care: NICE clinical guideline. *British Journal of General Practice*, *62*(594), 47–49. https://doi.org/10.3399/bjgp12X616481

Kieling, C., Baker-Henningham, H., Belfer, M., Conti, G., Ertem, I., Omigbodun, O., Rohde, L. A., Srinath, S., Ulkuer, N., & Rahman, A. (2011). Child and adolescent mental health worldwide: evidence for action. *The Lancet (British Edition)*, *378*(9801), 1515–1525. https://doi.org/10.1016/S0140-6736(11)60827-1

Kim, H., Sherman, D., Sasaki, J., Xu, J., Chu, T., Ryu, C., Suh, E., Graham, K., & Taylor, S. (2010). Culture, distress, and oxytocin receptor polymorphism (OXTR) interact to influence emotional support seeking. *Proceedings of the National Academy of Sciences - PNAS*, *107*(36), 15717–15721. https://doi.org/10.1073/pnas.1010830107

Kim, S., Colwell, S. R., Kata, A., Boyle, M. H., & Georgiades, K. (2018). Cyberbullying Victimization and Adolescent Mental Health: Evidence of Differential Effects by Sex and Mental Health Problem Type. *Journal of Youth and Adolescence*, *47*(3), 661–672. https://doi.org/10.1007/s10964-017-0678-4

Kivimäki, H., Saaristo, V., Wiss, K., Frantsi-Lankia, M., Ståhl, T., & Rimpelä, A. (2019). Access to a school health nurse and adolescent health needs in the universal school health service in Finland. *Scandinavian Journal of Caring Sciences*, *33*(1), 165–175. https://doi.org/10.1111/scs.12617

Klomek, A. B., Marrocco, F., Kleinman, M., Schonfeld, I. S., & Gould, M. S. (2008). Peer Victimization, Depression, and Suicidiality in Adolescents. *Suicide & Life-Threatening Behavior*, *38*(2), 166–180. https://doi.org/10.1521/suli.2008.38.2.166

Klomek, A. B., Sourander, A., & Gould, M. (2010). The Association of Suicide and Bullying in Childhood to Young Adulthood: A Review of Cross-Sectional and Longitudinal Research Findings. *Canadian Journal of Psychiatry*, *55*(5), 282–288. https://doi.org/10.1177/070674371005500503

Klomsten, A. (2019). Exploring Education In Mental Health (EMH): A New Approach For Teaching Mental Health Literacy Among Secondary School students In Norway. *ECER*. https://eera-ecer.de/ecer-programmes/conference/24/contribution/46882/

Klonsky, E. D., Victor, S. E., & Saffer, B. Y. (2014). Nonsuicidal Self-Injury: What We Know, and What We Need to Know. *Canadian Journal of Psychiatry*, *59*(11), 565–568. https://doi.org/10.1177/070674371405901101

Kochenderfer-Ladd, B., & Pelletier, M. E. (2008). Teachers' views and beliefs about bullying: Influences on classroom management strategies and students' coping with peer victimization. *Journal of School Psychology*, *46*(4), 431–453. https://doi.org/10.1016/j.jsp.2007.07.005

Kodish, T., Herres, J., Shearer, A., Atte, T., Fein, J., & Diamond, G. (2016). Bullying, Depression, and Suicide Risk in a Pediatric Primary Care Sample. *Crisis : The Journal of Crisis Intervention and Suicide Prevention*, *37*(3), 241–246. https://doi.org/10.1027/0227-5910/a000378

Kolouh-Söderlund, L., Hertzberg, L., Hadnagy, J., & Walke, L. (2019). *Adolescent Health in the Nordic Region – Health promotion in school settings*. https://nordicwelfare.org/wp-content/uploads/2019/03/NWC_Temaha%CC%88fte_Skolelever_Webb.pdf

Konishi, C., Miyazaki, Y., Hymel, S., & Waterhouse, T. (2017). Investigating associations between school climate and bullying in secondary schools: Multilevel contextual effects modeling. *School Psychology International*, *38*(3), 240–263. https://doi.org/10.1177/0143034316688730

Kovess-Masfety, V., Van Engelen, J., Stone, L., Otten, R., Carta, M. G., Bitfoi, A., Koc, C., Goelitz, D., Lesinskiene, S., Mihova, Z., Fermanian, C., Pez, O., & Husky, M. (2017). Unmet Need for Specialty Mental Health Services Among Children Across Europe.. *Psychiatric Services*, *68*(8), 789–795. https://doi.org/10.1176/appi.ps.201600409

Koyanagi, A., Oh, H., Carvalho, A. F., Smith, L., Haro, J. M., Vancampfort, D., Stubbs, B., & DeVylder, J. E. (2019). Bullying Victimization and Suicide Attempt Among Adolescents Aged 12–15 Years From 48 Countries. *Journal of the American Academy of Child and Adolescent Psychiatry*, *58*(9), 907-918.e4. https://doi.org/10.1016/j.jaac.2018.10.018

Kusumawardani, R., Paek, S. C., Ratanawijitrasin, S., & Phukao, D. (2023). Exploring the implementation of the school-based mental health program for adolescents in Indonesia: A mixed-methods study. *Public Health of Indonesia*, *9*(4), 164–176. https://doi.org/10.36685/phi.v9i4.751

Kutsyuruba, B., Klinger, D. A., & Hussain, A. (2015). Relationships among school climate, school safety, and student achievement and well-being: a review of the literature. *Review of Education*, *3*(2), 103–135. https://doi.org/10.1002/rev3.3043

Kwan, I., Dickson, K., Richardson, M., MacDowall, W., Burchett, H., Stansfield, C., Brunton, G., Sutcliffe, K., & Thomas, J. (2020). Cyberbullying and Children and Young People's Mental Health: A Systematic Map of Systematic Reviews. *Cyberpsychology, Behavior and Social Networking*, *23*(2), 72–82. https://doi.org/10.1089/cyber.2019.0370

La Salle, T. P., Rocha-Neves, J., Jimerson, S., Di Sano, S., Martinsone, B., Albertova, S. M., Gajdosova, E., Baye, A., Deltour, C., Martinelli, V., Raykov, M., Hatzichristou, C., Palikara, O., Szabo, E., Arlauskaite, Z., Athanasiou, D., Brown-Earle, O., Casale, G., Lampropoulou, A., … Zvyagintsev, R. (2021). A Multinational Study Exploring Adolescent Perception of School

Climate and Mental Health. *School Psychology*, *36*(3), 155-U38. https://doi.org/10.1037/spq0000430

Lacoe, J. (2020). Too Scared to Learn? The Academic Consequences of Feeling Unsafe in the Classroom. *Urban Education*, *55*(10), 1385–1418. https://doi.org/10.1177/0042085916674059

Larson, K. E., Nguyen, A. J., Orozco Solis, M. G., Humphreys, A., Bradshaw, C. P., & Lindstrom Johnson, S. (2020). A systematic literature review of school climate in low and middle income countries. *International Journal of Educational Research*, *102*, 101606. https://doi.org/10.1016/j.ijer.2020.101606

Lear, M. K., Perry, K. M., Stacy, S. E., Canen, E. L., Hime, S. J., & Pepper, C. M. (2020). Differential suicide risk factors in rural middle and high school students. *Psychiatry Research*, *284*, 112773. https://doi.org/10.1016/j.psychres.2020.112773

Lee, J., Bang, Y. S., Min, S., Ahn, J.-S., Kim, H., Cha, Y.-S., Park, I.-S., & Kim, M.-H. (2019). Characteristics of adolescents who visit the emergency department following suicide attempts: comparison study between adolescents and adults. *BMC Psychiatry*, *19*(1), 231–239. https://doi.org/10.1186/s12888-019-2213-5

Lenz, A. S., Rocha, L., & Aras, Y. (2021). Measuring School Climate: A Systematic Review of Initial Development and Validation Studies. *International Journal for the Advancement of Counselling*, *43*(1), 48–62. https://doi.org/10.1007/s10447-020-09415-9

Lenzi, M., Sharkey, J., Furlong, M. J., Mayworm, A., Hunnicutt, K., & Vieno, A. (2017). School Sense of Community, Teacher Support, and Students' School Safety Perceptions. *American Journal of Community Psychology*, *60*(3–4), 527–537. https://doi.org/10.1002/ajcp.12174

Lessard, L. M., Wang, E. Y., & Watson, R. J. (2021). School Safety Among Sexual and Gender Minority Adolescents: Implications for Eating and Weight Control Behaviors. *The Journal of School Health*, *91*(10), 788–795. https://doi.org/10.1111/josh.13069

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *Journal of Clinical Epidemiology*, *62*(10), e1–e34. https://doi.org/10.1016/j.jclinepi.2009.06.006

Liddon, L., Kingerlee, R., & Barry, J. A. (2018). Gender differences in preferences for psychological treatment, coping strategies, and triggers to help-seeking. *British Journal of Clinical Psychology*, *57*(1), 42–58. https://doi.org/10.1111/bjc.12147

Lim, C. G., Ong, S. H., Chin, C. H., & Fung, D. S. S. (2015). Child and adolescent psychiatry services in Singapore. *Child and Adolescent Psychiatry and Mental Health*, *9*(1), 7. https://doi.org/10.1186/s13034-015-0037-8

Lindstrom, S., Bottiani, J., Waasdorp, T., & Bradshaw, C. (2018). Surveillance or Safekeeping? How School Security Officer and Camera Presence Influence Students' Perceptions of Safety, Equity, and Support. *Journal of Adolescent Health*, *63*(6), 732–738. https://doi.org/10.1016/j.jadohealth.2018.06.008

Link, B. G., DuPont-Reyes, M. J., Barkin, K., Villatoro, A. P., Phelan, J. C., & Painter, K. (2020). A School-Based Intervention for Mental Illness Stigma: A Cluster Randomized Trial. *Pediatrics (Evanston)*, *145*(6), 1. https://doi.org/10.1542/peds.2019-0780

Llorent, V. J., Ortega-Ruiz, R., & Zych, I. (2016). Bullying and Cyberbullying in Minorities: Are They More Vulnerable than the Majority Group?. *Frontiers in Psychology*, *7*, 1507–1507. https://doi.org/10.3389/fpsyg.2016.01507

López, V., Benbenishty, R., Astor, R. A., Ascorra, P., & González, L. (2020). Teachers Victimizing Students: Contributions of Student-to-Teacher Victimization, Peer Victimization, School Safety, and School Climate in Chile. *American Journal of Orthopsychiatry*, *90*(4), 432–444. https://doi.org/10.1037/ort0000445

Lorenzo-Blanco, E., Unger, J. B., Oshri, A., Baezconde-Garbanati, L., & Soto, D. (2016). Profiles of bullying victimization, discrimination, social support, and school safety: Links with Latino/a youth

acculturation, gender, depressive symptoms, and cigarette use. *American Journal of Orthopsychiatry*, *86*(1), 37–48. https://doi.org/10.1037/ort0000113

Lubman, D. I., Cheetham, A., Sandral, E., Wolfe, R., Martin, C., Blee, F., Berridge, B. J., Jorm, A. F., Wilson, C., Allen, N. B., McKay-Brown, L., & Proimos, J. (2020). Twelve-month outcomes of MAKINGtheLINK: A cluster randomized controlled trial of a school-based program to facilitate help-seeking for substance use and mental health problems. *EClinicalMedicine*, *18*, 100225–100225. https://doi.org/10.1016/j.eclinm.2019.11.018

Lynch, H., McDonagh, C., & Hennessy, E. (2021). Social Anxiety and Depression Stigma Among Adolescents. *Journal of Affective Disorders*, *281*, 744–750. https://doi.org/10.1016/j.jad.2020.11.073

Lynch, L., Moorhead, A., Long, M., & Hawthorne-Steele, I. (2023). The Role of Informal Sources of Help In Young People's Access To, Engagement With, And Maintenance In Professional Mental Health Care—A Scoping Review. *Journal of Child and Family Studies*, *32*(11), 3350–3365. https://doi.org/10.1007/s10826-022-02498-5

Ma, L., Mazidi, M., Li, K., Li, Y., Chen, S., Kirwan, R., Zhou, H., Yan, N., Rahman, A., Wang, W., & Wang, Y. (2021). Prevalence of mental health problems among children and adolescents during the COVID-19 pandemic: A systematic review and meta-analysis. *Journal of Affective Disorders*, *293*, 78–89. https://doi.org/10.1016/j.jad.2021.06.021

Maezono, J., Hamada, S., Sillanmäki, L., Kaneko, H., Ogura, M., Lempinen, L., & Sourander, A. (2019). Cross-cultural, population-based study on adolescent body image and eating distress in Japan and Finland. *Scandinavian Journal of Psychology*, *60*(1), 67–76. https://doi.org/10.1111/sjop.12485

Maiuolo, M., Deane, F. P., & Ciarrochi, J. (2019). Parental Authoritativeness, Social Support and Help-seeking for Mental Health Problems in Adolescents. *Journal of Youth and Adolescence*, *48*(6), 1056–1067. https://doi.org/10.1007/s10964-019-00994-4

Mansbach-Kleinfeld, I., Farbstein, I., Levinson, D., Apter, A., Erhard, R., Palti, H., Geraisy, N., Brent, D. A., Ponizovsky, A. M., & Levav, I. (2010). Service use for mental disorders and unmet need: Results from the Israel survey on mental health among adolescents. *Psychiatric Services*, *61*(3), 241–249. https://doi.org/10.1176/ps.2010.61.3.241

March, A. L., & Serdar Atav, A. (2010). Social Environment and Problem Behavior. *The Journal of School Nursing*, *26*(2), 121–130. https://doi.org/10.1177/1059840509343112

Marzocchi, G. M., Capron, C., Di Pietro, M., Duran Tauleria, E., Duyme, M., Frigerio, A., Gaspar, M. F., Hamilton, H., Pithon, G., Simões, A., & Thérond, C. (2004). The use of the Strengths and Difficulties Questionnaire (SDQ) in Southern European countries. *European Child & Adolescent Psychiatry*, *13 Suppl 2*(S2), II40–II46. https://doi.org/10.1007/s00787-004-2007-1

McLaughlin, S., Staniland, L., Egan, S. J., Wheadon, J., Munro, C., Preece, D., Furlong, Y., Mavaddat, N., Thompson, A., Robinson, S., Chen, W., & Myers, B. (2023). Interventions to reduce wait times for adolescents seeking mental health services: a scoping review protocol. *BMJ Open*, *13*(9), e073438. https://doi.org/10.1136/bmjopen-2023-073438

Mehra, D., Lakiang, T., Kathuria, N., Kumar, M., Mehra, S., & Sharma, S. (2022). Mental Health Interventions among Adolescents in India: A Scoping Review. *Healthcare (Basel)*, *10*(2), 337. https://doi.org/10.3390/healthcare10020337

Mergl, R., Koburger, N., Heinrichs, K., Székely, A., Tóth, M. D., Coyne, J., Quintão, S., Arensman, E., Coffey, C., Maxwell, M., Värnik, A., van Audenhove, C., McDaid, D., Sarchiapone, M., Schmidtke, A., Genz, A., Gusmão, R., & Hegerl, U. (2015). What Are Reasons for the Large Gender Differences in the Lethality of Suicidal Acts? An Epidemiological Analysis in Four European Countries. *PloS One*, *10*(7), e0129062. https://doi.org/10.1371/journal.pone.0129062

Meyer, S. R., Yu, G., Hermosilla, S., & Stark, L. (2018). School violence, perceptions of safety and school attendance: results from a cross-sectional study in Rwanda and Uganda. *Journal of Global Health Reports*, *2*, e2018020. https://doi.org/10.29392/joghr.2.e2018020

Michalos, A. C. (2014). *Encyclopedia of Quality of Life and Well-Being Research* (2014th ed.) [Book]. Springer Netherlands. https://doi.org/10.1007/978-94-007-0753-5

Ministry of Education Culture Sports Science and Technology-Japan (MEXT). (2023). *Results of the 2022 survey on problematic behavior, futoko, and other student guidance issues for pupils and students.* https://www.mext.go.jp/content/20231004-mxt_jidou01-100002753_1.pdf

Miranda-Mendizábal, A., Castellví, P., Parés-Badell, O., Almenara, J., Alonso, I., Blasco, M. J., Cebrià, A., Gabilondo, A., Gili, M., Lagares, C., Piqueras, J. A., Roca, M., Rodríguez-Marín, J., Rodríguez-Jiménez, T., Soto-Sanz, V., Vilagut, G., & Alonso, J. (2017). Sexual orientation and suicidal behaviour in adolescents and young adults: systematic review and meta-analysis. *British Journal of Psychiatry*, *211*(2), 77–87. https://doi.org/10.1192/bjp.bp.116.196345

Mitchell, R. M., Kensler, L., & Tschannen-Moran, M. (2018). Student trust in teachers and student perceptions of safety: positive predictors of student identification with school. *International Journal of Leadership in Education*, *21*(2), 135–154. https://doi.org/10.1080/13603124.2016.1157211

Modecki, K. L., Minchin, J., Harbaugh, A. G., Guerra, N. G., & Runions, K. C. (2014). Bullying Prevalence Across Contexts: A Meta-analysis Measuring Cyber and Traditional Bullying. *Journal of Adolescent Health*, *55*(5), 602–611. https://doi.org/10.1016/j.jadohealth.2014.06.007

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *Annals of Internal Medicine*, *151*(4), 264–269. https://doi.org/10.7326/0003-4819-151-4-200908180-00135

Mojaverian, T., Hashimoto, T., & Kim, H. S. (2012). Cultural Differences in Professional Help Seeking: A Comparison of Japan and the U.S.. *Frontiers in Psychology*, *3*, 615. https://doi.org/10.3389/fpsyg.2012.00615

Mooij, T., & Fettelaar, D. (2012). School and pupil effects on secondary pupils' feelings of safety in school, around school, and at home. *Journal of Interpersonal Violence*, *28*(6), 1240–1266. https://doi.org/10.1177/0886260512468242

Moore, H., Benbenishty, R., Astor, R. A., & Rice, E. (2018). The Positive Role of School Climate on School Victimization, Depression, and Suicidal Ideation among School-Attending Homeless Youth. *Journal of School Violence*, *17*(3), 298–310. https://doi.org/10.1080/15388220.2017.1322518

Mowen, T. J., & Freng, A. (2019). Is More Necessarily Better? School Security and Perceptions of Safety among Students and Parents in the United States. *American Journal of Criminal Justice*, *44*(3), 376–394. https://doi.org/10.1007/s12103-018-9461-7

Muller, C., & Maclehose, R. (2014). Estimating predicted probabilities from logistic regression: different methods correspond to different target populations. *International Journal of Epidemiology*, *43*(3), 962–970. https://doi.org/10.1093/ije/dyu029

Muris, P., Meesters, C., Eijkelenboom, A., & Vincken, M. (2004). The self-report version of the Strengths and Difficulties Questionnaire: Its psychometric properties in 8- to 13-year-old non-clinical children. *British Journal of Clinical Psychology*, *43*(4), 437–448. https://doi.org/10.1348/0144665042388982

National Institutes of Health/National Heart, L. and B. I. (2014). *Quality assessment tool for observational cohort and cross-sectional studies*. https://www.nhlbi.nih.gov/

Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European Journal of Social Psychology*, *15*(3), 263–280. https://doi.org/10.1002/ejsp.2420150303

Neznanov, N. G., & Vasileva, V. (2015). Legal regulation of mental healthcare provision in Russia. *BJPsych International*, *12*(1), 17–18. https://doi.org/10.1192/S205647400000009X

Nishio, A. (2022). An Overview of Non-School Mental-Health Support Systems for Children in Japan. *Journal of Medical and Health Sciences*, *11*(3), 19–28. https://doi.org/10.4172/ 2319-9865.11.3.001

Novins, D. K., Beals, J., Sack, W. H., & Manson, S. M. (2000). Unmet needs for substance abuse and mental health services among northern plains american indian adolescents. *Psychiatric Services*, *51*(8), 1045–1047. https://doi.org/10.1176/appi.ps.51.8.1045

Obel, C., Heiervang, E., Mathiesen, K. S., Magnusson, P., Njardvik, U., Koskelainen, M., Ronning, J. A., Stormark, K. M., Olsen, J., Rodriguez, A., Heyerdahl, S., Smedje, H., Sourander, A., Gusmundsson, O. O., Clemch-Aas, J., Christensen, E., & Heian, F. (2004). The strengths and Difficulties Questionnaire in the Nordic countries. *European Child & Adolescent Psychiatry*, *13*, 32–39. https://doi.org/10.1007/s00787-004-2006-2

OECD. (2018). *Is the Last Mile the Longest? Economic Gains from Gender Equality in Nordic Countries* (Gender Equality at Work). OECD. https://doi.org/10.1787/9789264300040-EN

OECD. (2023). *Programme for International Student Assessment (PISA)*. https://www.oecd.org/pisa/

Ojagbemi, A., & Gureje, O. (2022). Mental health in low- and middle-income countries. *Oxford Textbook of Social Psychiatry*, 699–712. https://doi.org/10.1093/MED/9780198861478.003.0072

Olweus, D. (1995). Bullying or Peer Abuse at School: Facts and Intervention. *Current Directions in Psychological Science*, *4*(6), 196–200. https://doi.org/10.1111/1467-8721.ep10772640

O'Malley Olsen, E., Kann, L., Vivolo-Kantor, A., Kinchen, S., & McManus, T. (2014). School Violence and Bullying Among Sexual Minority High School Students, 2009–2011. *Journal of Adolescent Health*, *55*(3), 432–438. https://doi.org/10.1016/j.jadohealth.2014.03.002

Onnela, A., Hurtig, T., & Ebeling, H. (2021). School professionals committed to student well-being. *International Journal of Circumpolar Health*, *80*(1), 1873589. https://doi.org/10.1080/22423982.2021.1873589

Otto, C., Reiss, F., Voss, C., Wüstner, A., Meyrose, A.-K., Hölling, H., & Ravens-Sieberer, U. (2021). Mental health and well-being from childhood to adulthood: design, methods and results of the 11-year follow-up of the BELLA study. *European Child & Adolescent Psychiatry*, *30*(10), 1559–1577. https://doi.org/10.1007/s00787-020-01630-4

Pampati, S., Andrzejewski, J., Sheremenko, G., Johns, M., Lesesne, C. A., & Rasberry, C. N. (2020). School Climate Among Transgender High School Students: An Exploration of School Connectedness, Perceived Safety, Bullying, and Absenteeism. *The Journal of School Nursing*, *36*(4), 293–303. https://doi.org/10.1177/1059840518818259

Patel, V., Kieling, C., Maulik, P. K., & Divan, G. (2013). Improving access to care for children with mental disorders: a global perspective. *Archives of Disease in Childhood*, *98*(5), 323–327. https://doi.org/10.1136/archdischild-2012-302079

Paulhus, D. L., & Vazire, S. (2007). The self-report method. In *Handbook of research methods in personality psychology.* (pp. 224–239). The Guilford Press.

Peng, Z., Klomek, A. B., Li, L., Su, X., Sillanmäki, L., Chudal, R., & Sourander, A. (2019). Associations between Chinese adolescents subjected to traditional and cyber bullying and suicidal ideation, self-harm and suicide attempts. *BMC Psychiatry*, *19*(1), 324–324. https://doi.org/10.1186/s12888-019-2319-9

Pentek, C., & Eisenberg, M. E. (2018). School resource officers, safety, and discipline: Perceptions and experiences across racial/ethnic groups in Minnesota secondary schools. *Children and Youth Services Review*, *88*, 141–148. https://doi.org/10.1016/j.childyouth.2018.03.008

Perumean-Chaney, S., & Sutton, L. M. (2013). Students and perceived school safety: The impact of school security measures. *American Journal of Criminal Justice*, *38*(4), 570–588. https://doi.org/10.1007/s12103-012-9182-2

Pistella, J., Ioverno, S., Rodgers, M. A., & Russell, S. T. (2020). The contribution of school safety to weight-related health behaviors for transgender youth. *Journal of Adolescence (London, England.)*, *78*, 33–42. https://doi.org/10.1016/j.adolescence.2019.12.001

Polanczyk, G. V, Salum, G. A., Sugaya, L. S., Caye, A., & Rohde, L. A. (2015). Annual Research Review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *Journal of Child Psychology and Psychiatry*, *56*(3), 345–365. https://doi.org/10.1111/jcpp.12381

Posner, K., Oquendo, M. A., Gould, M., Stanley, B., & Davies, M. (2007). Columbia Classification Algorithm of Suicide Assessment (C-CASA): Classification of Suicidal Events in the FDA's Pediatric Suicidal Risk Analysis of Antidepressants. *The American Journal of Psychiatry*, *164*(7), 1035–1043. https://doi.org/10.1176/ajp.2007.164.7.1035

Quintana-Orts, C., Mérida-López, S., Chamizo-Nieto, M. T., Extremera, N., & Rey, L. (2022). Unraveling the links among cybervictimization, core self-evaluations, and suicidal ideation: A multi-study investigation. *Personality and Individual Differences*, *186*, 111337. https://doi.org/10.1016/j.paid.2021.111337

Radez, J., Reardon, T., Creswell, C., Lawrence, P. J., Evdoka-Burton, G., & Waite, P. (2021). Why do children and adolescents (not) seek and access professional help for their mental health problems? A systematic review of quantitative and qualitative studies. *European Child & Adolescent Psychiatry*, *30*(2), 183–211. https://doi.org/10.1007/S00787-019-01469-4

Radu, M. B. (2018). Do Students' Perceptions of Unsafe Schools and Experiences With Bullying Hinder the Effects of Family and School Social Capital in Deterring Violence?. *The American Behavioral Scientist (Beverly Hills)*, *62*(11), 1505–1524. https://doi.org/10.1177/0002764218787004

Rajbhandari-Thapa, J., Metzger, I., Ingels, J., Thapa, K., & Chiang, K. (2022). School climate-related determinants of physical activity among high school girls and boys. *Journal of Adolescence*, *94*(4), 642–655. https://doi.org/10.1002/JAD.12052

Rana, M., Gupta, M., Malhi, P., Grover, S., & Kaur, M. (2020). Prevalence and correlates of bullying perpetration and victimization among school-going adolescents in Chandigarh, North India. *Indian Journal of Psychiatry*, *62*(5), 531–539. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_444_19

Rathod, S., Pinninti, N., Irfan, M., Gorczynski, P., Rathod, P., Gega, L., & Naeem, F. (2017). Mental Health Service Provision in Low- and Middle-Income Countries. *Health Services Insights*, *10*. https://doi.org/10.1177/1178632917694350

Ravens-Sieberer, U., Erhart, M., Gosch, A., & Wille, N. (2008). Mental health of children and adolescents in 12 European countries-results from the European KIDSCREEN study. *Clinical Psychology and Psychotherapy*, *15*(3), 154–163. https://doi.org/10.1002/cpp.574

Rens, E., Dom, G., Remmen, R., Michielsen, J., & Van den Broeck, K. (2020). Unmet mental health needs in the general population: perspectives of Belgian health and social care professionals. *International Journal for Equity in Health*, *19*(1), 169. https://doi.org/10.21203/rs.3.rs-33443/v2

Reynolds, S., Wilson, C., Austin, J., & Hooper, L. (2012). Effects of psychotherapy for anxiety in children and adolescents: A meta-analytic review. *Clinical Psychology Review*, *32*(4), 251–262. https://doi.org/10.1016/j.cpr.2012.01.005

Rezun, E. V., Slobodskaya, H. R., & Semenova, N. B. (2023). The structure of adolescent mental health problems: The role of effortful control and school safety. *Journal of Adolescence (London, England.)*, *95*(5), 947–963. https://doi.org/10.1002/jad.12166

Rhodes, A. E., Boyle, M. H., Bridge, J. A., Sinyor, M., Links, P. S., Tonmyr, L., Skinner, R., Bethell, J. M., Carlisle, C., Goodday, S., Hottes, T. S., Newton, A., Bennett, K., Sundar, P., Cheung, A. H., & Szatmari, P. (2014). Antecedents and sex/gender differences in youth suicidal behavior. *World Journal of Psychiatry*, *4*(4), 120. https://doi.org/10.5498/WJP.V4.I4.120

Rhodes, A. E., Lu, H., & Skinner, R. (2014). Time Trends in Medically Serious Suicide-Related Behaviours in Boys and Girls. *Canadian Journal of Psychiatry*, *59*(10), 556–560. https://doi.org/10.1177/070674371405901009

Ribeiro, J. D., Franklin, J. C., Fox, K. R., Bentley, K. H., Kleiman, E. M., Chang, B. P., & Nock, M. K. (2016). Self-injurious thoughts and behaviors as risk factors for future suicide ideation, attempts, and death: a meta-analysis of longitudinal studies. *Psychological Medicine*, *46*(2), 225–236. https://doi.org/10.1017/S0033291715001804

Rickwood, D., & Thomas, K. (2012). Conceptual measurement framework for help-seeking for mental health problems. *Psychology Research and Behavior Management*, *5*, 173–183. https://doi.org/10.2147/PRBM.S38707

Rigby, K. (2014). How teachers address cases of bullying in schools: a comparison of five reactive approaches. *Educational Psychology in Practice*, *30*(4), 409–419. https://doi.org/10.1080/02667363.2014.949629

Romero, A. J., Bauman, S., Borgstrom, M., & Kim, S. E. (2018). Examining Suicidality, Bullying, and Gun Carrying Among Latina/o Youth Over 10 Years. *American Journal of Orthopsychiatry*, *88*(4), 450–461. https://doi.org/10.1037/ort0000323

Rose, I. D., Sheremenko, G., Rasberry, C. N., Lesesne, C. A., & Adkins, S. N. H. (2018). Sex Differences in School Safety and Bullying Experiences Among Sexual Minority Youth. *The Journal of School Nursing*, *34*(4), 301–309. https://doi.org/10.1177/1059840518762536

Ruch, D. A., Sheftall, A. H., Schlagbaum, P., Rausch, J., Campo, J. V, & Bridge, J. A. (2019). Trends in Suicide Among Youth Aged 10 to 19 Years in the United States, 1975 to 2016. *JAMA Network Open*, *2*(5), e193886. https://doi.org/10.1001/jamanetworkopen.2019.3886

Sagar-Ouriaghli, I., Godfrey, E., Bridge, L., Meade, L., & Brown, J. S. L. (2019). Improving Mental Health Service Utilization Among Men: A Systematic Review and Synthesis of Behavior Change Techniques Within Interventions Targeting Help-Seeking. *American Journal of Men's Health*, *13*(3), 1557988319857009. https://doi.org/10.1177/1557988319857009

Sagar-Ouriaghli, I., Godfrey, E., Graham, S., & Brown, J. S. L. (2020). Improving Mental Health Help-Seeking Behaviours for Male Students: A Framework for Developing a Complex Intervention. *International Journal of Environmental Research and Public Health*, *17*(14), 4965. https://doi.org/10.3390/ijerph17144965

Sampasa-Kanyinga, H., Lalande, K., & Colman, I. (2018). Cyberbullying victimisation and internalising and externalising problems among adolescents: the moderating role of parent-child relationship and child's sex. *Epidemiology and Psychiatric Sciences*, *29*, e8. https://doi.org/10.1017/S2045796018000653

Schneider, S., O'donnell, L., Stueve, A., & Coulter, R. W. S. (2012). Cyberbullying, School Bullying, and Psychological Distress: A Regional Census of High School Students. *American Journal of Public Health*, *102*(1), 171–177. https://doi.org/10.2105/AJPH.2011.300308

Sedgwick, P. (2014). Cross sectional studies: advantages and disadvantages. *BMJ* , *348*, g2276. https://doi.org/10.1136/bmj.g2276

Shamseer, L., Moher, D., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P., & Stewart, L. A. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. *BMJ*, *349*, g7647. https://doi.org/10.1136/bmj.g7647

Sharifi, V., Mojtabai, R., Shahrivar, Z., Alaghband-Rad, J., Zarafshan, H., & Wissow, L. (2016). Child and Adolescent Mental Health Care in Iran: Current Status and Future Directions. *Archives of Iranian Medicine*, *19*(11), 797.

Shaw, M. (2005). Comprehensive approaches to school safety and security: An international view [Bookitem]. In *Lessons in Danger*. Organization for Economic Cooperation & Development.

Silke, C., Brady, B., Devaney, C., O'Brien, C., Durcan, M., Bunting, B., & Heary, C. (2023). Youth Suicide and Self-Harm: Latent Class Profiles of Adversity and the Moderating Roles of Perceived Support and Sense of Safety. *Journal of Youth and Adolescence*, *52*(6), 1255–1271. https://doi.org/10.1007/s10964-023-01762-1

Skiba, R., Simmons, A. B., Peterson, R., McKelvey, J., Forde, S., & Gallini, S. (2004). Beyond guns, drugs and gangs: the structure of student perceptions of school safety. *Journal of School Violence*, *3*(2), 149–171. https://doi.org/10.1300/J202v03n02_09

Skre, I., Friborg, O., Breivik, C., Johnsen, L. I., Arnesen, Y., & Wang, C. E. A. (2013). A school intervention for mental health literacy in adolescents: effects of a non-randomized cluster controlled trial. *BMC Public Health*, *13*(1), 873–873. https://doi.org/10.1186/1471-2458-13-873

Smith, P. K., Cowie, H., Olafsson, R. F., & Liefooghe, A. P. D. (2002). Definitions of Bullying: A Comparison of Terms Used, and Age and Gender Differences, in a Fourteen-Country International Comparison. *Child Development*, *73*(4), 1119–1133. https://doi.org/10.1111/1467-8624.00461

Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: its nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry*, *49*(4), 376–385. https://doi.org/10.1111/j.1469-7610.2007.01846.x

Snyder, T. D., de Brey, C., & Dillow, S. A. (2019). Digest of Education Statistics 2018, 54th Edition. NCES 2020-009. In *National Center for Education Statistics* [Document]. National Center for Education Statistics.

Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., Il Shin, J., Kirkbride, J. B., Jones, P., Kim, J. H., Kim, J. Y., Carvalho, A. F., Seeman, M. V, Correll, C. U., & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*, *27*(1), 281–295. https://doi.org/10.1038/s41380-021-01161-7

Sommar, M. (2016). *Mental health among youth in Norway: Who is responsible? What is being done?* Nordic Welfare Centre.

Sourander, A., Chudal, R., Skokauskas, N., Al-Ansari, A. M., Klomek, A. B., Pornnoppadol, C., Kolaitis, G., Maezono, J., Steinhausen, H.-C., Slobodskaya, H., Kaneko, H., Regmee, J., Li, L., Nguyen, M. H., Grimland, M., Osokina, O., Ong, S. H., Praharaj, S. K., Lesinskienė, S., … Lehti, V. (2018). Unmet needs of child and adolescent psychiatrists among Asian and European countries: does the Human Development Index (HDI) count?. *European Child & Adolescent Psychiatry*, *27*(1), 5–8. https://doi.org/10.1007/s00787-017-1095-7

Sourander, A., Klomek, A. B., Ikonen, M., Lindroos, J., Luntamo, T., Koskelainen, M., Ristkari, T., & Helenius, H. (2010). Psychosocial risk factors associated with cyberbullying among adolescents: a population-based study. *Archives of General Psychiatry*, *67*(7), 720–728. https://doi.org/10.1001/ARCHGENPSYCHIATRY.2010.79

Sourander, A., Koskelainen, M., Niemelä, S., Rihko, M., Ristkari, T., & Lindroos, J. (2012). Changes in adolescents mental health and use of alcohol and tobacco: a 10-year time-trend study of Finnish adolescents. *European Child & Adolescent Psychiatry*, *21*(12), 665–671. https://doi.org/10.1007/s00787-012-0303-8

Srebnik, D., Cauce, A. M., & Baydar, N. (1996). Help-Seeking Pathways for Children and Adolescents. *Journal of Emotional and Behavioral Disorders*, *4*(4), 210–220. https://doi.org/10.1177/106342669600400402

Srinath, S., Jacob, P., Sharma, E., & Gautam, A. (2019). Clinical practice guidelines for assessment of children and adolescents. *Indian Journal of Psychiatry*, *61*(8), 158–175. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_580_18

Steiner, R. J., & Rasberry, C. N. (2015). Brief report: Associations between in-person and electronic bullying victimization and missing school because of safety concerns among U.S. high school students. *Journal of Adolescence*, *43*, 1–4. https://doi.org/10.1016/j.adolescence.2015.05.005

Sterne, A., & Porter, B. (2013). *Overview of Child and Adolescent Mental Health Services in Israel*. Myers-JDC-Brookdale Institute. https://brookdale.jdc.org.il/en/publication/overview-child-adolescent-mental-health-services-israel/

Susser, E. S. (2006). *Psychiatric epidemiology: searching for the causes of mental disorders* (E. S. Susser, Ed.) [Book]. Oxford University Press.

Swearer, S. M., & Cary, P. T. (2003). Perceptions and Attitudes Toward Bullying in Middle School Youth. *Journal of Applied School Psychology*, *19*(2), 63–79. https://doi.org/10.1300/J008v19n02_05

Taliaferro, L. A., McMorris, B. J., Rider, G. N., & Eisenberg, M. E. (2019). Risk and Protective Factors for Self-Harm in a Population-Based Sample of Transgender Youth. *Archives of Suicide Research*, *23*(2), 203–221. https://doi.org/10.1080/13811118.2018.1430639

Taylor, S. E., Sherman, D. K., Kim, H. S., Jarcho, J., Takagi, K., & Dunagan, M. S. (2004). Culture and Social Support. *Journal of Personality and Social Psychology*, *87*(3), 354–362. https://doi.org/10.1037/0022-3514.87.3.354

Tejedor, M. C., Diaz, A., Castillón, J. J., & Pericay, J. M. (1999). Attempted suicide: repetition and survival findings of a follow-up study. *Acta Psychiatrica Scandinavica*, *100*(3), 205–211. https://doi.org/10.1111/j.1600-0447.1999.tb10847.x

Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A Review of School Climate Research. *Review of Educational Research*, *83*(3), 357–385. https://doi.org/10.3102/0034654313483907

Theunissen, M. H. C., de Wolff, M. S., & Reijneveld, S. A. (2019). The Strengths and Difficulties Questionnaire Self-Report: A Valid Instrument for the Identification of Emotional and Behavioral Problems. *Academic Pediatrics*, *19*(4), 471–476. https://doi.org/10.1016/j.acap.2018.12.008

Thomas, J. F. F., Temple, J. R., Perez, N., & Rupp, R. (2011). Ethnic and Gender Disparities in Needed Adolescent Mental Health Care. *Journal of Health Care for the Poor and Underserved*, *22*(1), 101. https://doi.org/10.1353/HPU.2011.0029

Thornicroft, G. (2006). *Shunned: discrimination against people with mental illness*. Oxford University Press.

Tiiri, E., Luntamo, T., Mishina, K., Sillanmäki, L., Brunstein Klomek, A., & Sourander, A. (2020). Did Bullying Victimization Decrease After Nationwide School-Based Antibullying Program? A Time-Trend Study. *Journal of the American Academy of Child and Adolescent Psychiatry*, *59*(4), 531–540. https://doi.org/10.1016/j.jaac.2019.03.023

Tourangeau, R., & Yan, T. (2007). Sensitive Questions in Surveys. *Psychological Bulletin*, *133*(5), 859–883. https://doi.org/10.1037/0033-2909.133.5.859

Underwood, J. M., Brener, N., Thornton, J., Harris, W. A., Bryan, L. N., Shanklin, S. L., Deputy, N., Roberts, A. M., Queen, B., Chyen, D., Whittle, L., Lim, C., Yamakawa, Y., Leon-Nguyen, M., Kilmer, G., Smith-Grant, J., Demissie, Z., Jones, S. E., Clayton, H., & Dittus, P. (2020). Overview and Methods for the Youth Risk Behavior Surveillance System - United States, 2019. *MMWR*, *69*(1), 1–10. https://doi.org/10.15585/mmwr.su6901a1

UNICEF Viet Nam. (2018). *Mental health and psychosocial wellbeing among children and young people in Viet Nam.* https://www.unicef.org/vietnam/reports/mental-health-and-psychosocial-wellbeing-among-children-and-young-people-viet-nam

United Nations Department of Economic and Social Affairs Population Division. (2019). *The international migrant stock 2019*. www.unmigration.org

United Nations Educational Scientific and Cultural Organization. (2017). School safety manual Tools for teachers. In *UNESCO-IICBA, P.O. Box 2305, Addis Ababa, Ethiopia*. UNESCO-IICBA, P.O. Box 2305, Addis Ababa. https://unesdoc.unesco.org/ark:/48223/pf0000261350

United Nations Educational Scientific and Cultural Organization. (2019a). *Behind the numbers: Ending school violence and bullying*. https://doi.org/https://doi.org/10.54675/TRVR4270

United Nations Educational Scientific and Cultural Organization. (2019b). *New Methodology Shows that 258 Million Children, Adolescents and Youth Are Out of School*. http://uis.unesco.org

United Nations International Children's Emergency Fund. (2021). *The State of the World's Children On My Mind: Promoting, protecting and caring for children's mental health.* https://www.unicef.org/reports/state-worlds-children-2021

Vaillancourt, T., Brittain, H., Bennett, L., Arnocky, S., McDougall, P., Hymel, S., Short, K., Sunderani, S., Scott, C., Mackenzie, M., & Cunningham, L. (2010). Places to avoid: Population-based study of student reports of unsafe and high bullying areas at school. *Canadian Journal of School Psychology*, *25*(1), 40–54. https://doi.org/10.1177/0829573509358686

Valente, R., & Crescenzi-Lanna, L. (2022). Feeling unsafe as a source of psychological distress in early adolescence. *Social Science & Medicine*, *293*, 114643. https://doi.org/10.1016/j.socscimed.2021.114643

Van de Looij-Jansen, P. M., & De Wilde, E. J. (2008). Comparison of Web-Based versus Paper-and-Pencil Self-Administered Questionnaire: Effects on Health Indicators in Dutch Adolescents. *Health Services Research*, *43*, 1708–1721. https://doi.org/10.1111/j.1475-6773.2008.00860.x

Van Meter, A. R., Knowles, E. A., & Mintz, E. H. (2023). Systematic Review and Meta-analysis: International Prevalence of Suicidal Ideation and Attempt in Youth. *Journal of the American Academy of Child and Adolescent Psychiatry*, *62*(9), 973–986. https://doi.org/10.1016/j.jaac.2022.07.867

Velasco, A. A., Cruz, I. S. S., Billings, J., Jimenez, M., & Rowe, S. (2020). What are the barriers, facilitators and interventions targeting help-seeking behaviours for common mental health problems in adolescents? A systematic review. *BMC Psychiatry*, *20*(1), 293–293. https://doi.org/10.1186/s12888-020-02659-0

Verhulst, F. C., Achenbach, T. M., Ferdinand, R. F., & Kasius, M. C. (1993). Epidemiological comparisons of American and Dutch adolescents' self-reports. *Journal of the American Academy of Child and Adolescent Psychiatry*, *32*(6), 1135–1144. https://doi.org/10.1097/00004583-199311000-00005

Vogel, D. L., Heimerdinger-Edwards, S. R., Hammer, J. H., & Hubbard, A. (2011). "Boys Don't Cry": Examination of the Links Between Endorsement of Masculine Norms, Self-Stigma, and Help-Seeking Attitudes for Men From Diverse Backgrounds. *Journal of Counseling Psychology*, *58*(3), 368–382. https://doi.org/10.1037/a0023688

Wade, T. J., Cairney, J., & Pevalin, D. J. (2002). Emergence of Gender Differences in Depression During Adolescence: National Panel Results From Three Countries. *Journal of the American Academy of Child and Adolescent Psychiatry*, *41*(2), 190–198. https://doi.org/10.1097/00004583-200202000-00013

Wang, C., Zhang, P., & Zhang, N. (2020). Adolescent mental health in China requires more attention. *The Lancet. Public Health*, *5*(12), e637. https://doi.org/10.1016/S2468-2667(20)30094-3

Wang, H., Bragg, F., Guan, Y., Zhong, J., Li, N., & Yu, M. (2023). Association of bullying victimization with suicidal ideation and suicide attempt among school students: A school-based study in Zhejiang Province, China. *Journal of Affective Disorders*, *323*, 361–367. https://doi.org/10.1016/j.jad.2022.11.087

Wang, M., & Degol, J. (2016). School Climate: a Review of the Construct, Measurement, and Impact on Student Outcomes. *Educational Psychology Review*, *28*(2), 315–352. https://doi.org/10.1007/s10648-015-9319-1

Wang, X., & Cheng, Z. (2020). Cross-Sectional Studies Strengths, Weaknesses, and Recommendations. *Chest*, *158*(1), S65–S71. https://doi.org/10.1016/j.chest.2020.03.012

Wei, Y., Kutcher, S., Austen, E., Comfort, A., Gilham, C., MacDougall, C., McKenna, G., McKinnon, M., Thompson, K., Yeo, E., Zhang, M., Baxter, A., & Matheson, K. (2022). The Impact of Transitions, a Mental Health Literacy Intervention With Embedded Life Skills for Postsecondary Students: Preliminary Findings From a Naturalistic Cohort Study. *Canadian Journal of Psychiatry*, *67*(6), 452–461. https://doi.org/10.1177/07067437211037131

Wijker, D., Sillitti, P., & Hewlett, E. (2022). The provision of community-based mental health care in Lithuania [Document]. *OECD Health Working Papers*, *143*, 0_1-111. https://doi.org/10.1787/18de24d5-en

Williams, C., Shipman-Lacewell, J., Shih, S.-F., Wynn, A., de Jesús Elias, M., & Valrie, C. (2023). Black adolescents' racial discrimination and suicide behaviors: Testing perceived school safety as a protective moderator. *Journal of Research on Adolescence*. https://doi.org/10.1111/jora.12877

Williams, K., & Chapman, M. (2012). Unmet Health and Mental Health Need Among Adolescents: The Roles of Sexual Minority Status and Child-Parent Connectedness. *American Journal of Orthopsychiatry*, *82*(4), 473–481. https://doi.org/10.1111/j.1939-0025.2012.01182.x

Williams, S., Schneider, M., Wornell, C., & Langhinrichsen-Rohling, J. (2018). Student's Perceptions of School Safety. *The Journal of School Nursing*, *34*(4), 319–330. https://doi.org/10.1177/1059840518761792

World Bank. (2024). *World Bank Country and Lending Groups*. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

World Health Organization. (2018). *Mental Health ATLAS 2017*.

World Health Organization. (2019). *The WHO special initiative for mental health (2019-2023): universal health coverage for mental health*. World Health Organization. https://iris.who.int/handle/10665/310981

World Health Organization. (2021a). *Mental Health ATLAS 2020*. https://www.who.int/publications/i/item/9789240036703/

World Health Organization. (2021b). *Suicide worldwide in 2019: global health estimates*. https://www.who.int/publications/i/item/9789240026643

World Health Organization. (2023a). *Adolescent health*. https://www.who.int/health-topics/adolescent-health/#tab=tab_1

World Health Organization. (2023b). *Global School-based Student Health Survey (GSHS)*. https://www.cdc.gov/gshs/index.htm

World Health Organization. (2023c). *Health Behaviour in School-aged Children study (HBSC)*. https://hbsc.org/

World Health Organization. (2024). *Israel: State of Israel*. https://www.who.int/countries/isr/

Wright, P., Stern, J., & Phelan, M. (2012). Core psychiatry. In *A brief introduction of psychiatry*. http://www.sciencedirect.com:5070/book/9780702033971/core-psychiatry

Yablon, Y. B., & Addington, L. A. (2010). Putting students' views of school safety into context: a comparison of adolescent personal safety across locations in Israel. *Journal of School Violence*, *9*(4), 407–422. https://doi.org/10.1080/15388220.2010.507147

Zaborskis, A., Ilionsky, G., Tesler, R., & Heinz, A. (2019). The Association Between Cyberbullying, School Bullying, and Suicidality Among Adolescents. *Crisis*, *40*(2), 100–114. https://doi.org/10.1027/0227-5910/a000536

Zhang, X., Slobodskaya, H. R., & Kaneko, H. (2023). Adolescent mental health in Japan and Russia: The role of body image, bullying victimisation and school environment. *International Journal of Psychology*. https://doi.org/10.1002/ijop.12947

Zhao, X., Selman, R. L., & Haste, H. (2015). Academic stress in Chinese schools and a proposed preventive intervention program. *Cogent Education*, *2*(1). https://doi.org/10.1080/2331186X.2014.1000477

Zheng, S., Masuda, T., Matsunaga, M., Noguchi, Y., Ohtsubo, Y., Yamasue, H., & Ishii, K. (2021). Cultural differences in social support seeking: The mediating role of empathic concern. *PloS One*, *16*(12), e0262001. https://doi.org/10.1371/journal.pone.0262001

Zhu, C., Huang, S., Evans, R., & Zhang, W. (2021). Cyberbullying Among Adolescents and Children: A Comprehensive Review of the Global Situation, Risk Factors, and Preventive Measures. *Frontiers in Public Health*, *9*, 634909. https://doi.org/10.3389/fpubh.2021.634909

Zwaanswijk, M., Van Der Ende, J., Verhaak, P. F. M., Bensing, J. M., & Verhulst, F. C. (2003). Factors Associated With Adolescent Mental Health Service Need and Utilization. *Journal of the American Academy of Child and Adolescent Psychiatry*, *42*(6), 692–700. https://doi.org/10.1097/01.CHI.0000046862.56865.B7

Zwaanswijk, M., Van Der Ende, J., Verhaak, P. F. M., Bensing, J. M., & Verhulst, F. C. (2005). Help-Seeking for Child Psychopathology: Pathways to Informal and Professional Services in The Netherlands. *Journal of the American Academy of Child and Adolescent Psychiatry*, *44*(12), 1292–1300. https://doi.org/10.1097/01.chi.0000181038.98712.c6

Zynuddin, S. N., Kenayathulla, H. B., & Sumintono, B. (2023). The relationship between school climate and students' non-cognitive skills: A systematic literature review. *Heliyon*, *9*(4), e14773. https://doi.org/10.1016/j.heliyon.2023.e14773

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