

**FACTORS INFLUENCING BULLYING
VICTIMIZATION IN PHYSICAL EDUCATION
AMONG MIDDLE SCHOOL STUDENTS: THE
MEDIATING ROLE OF SELF-ESTEEM**

ZHOU ZHUANG

UNIVERSITI SAINS MALAYSIA

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MEDIATING ROLE OF SELF-ESTEEM**

by

ZHOU ZHUANG

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LIST OF ABBREVIATIONS

ADHD	Attention-Deficit Hyperactivity Disorder
ASD	Autism Spectrum Disorder
BMI	Body Mass Index
BV	Bullying Victimization
CASSS	Children and Adolescent Social Support Scale
DCD	Developmental Coordination Disorder
FC	Family Conflict
FES	Family Environment Scale
MS	Motor Skills
OBVQ	Olweus Bully/Victim Questionnaire
PE	Physical Education
PS	Peer Support
PSDQ	Physical Self-Description Questionnaire
SEF	Social-Ecological Framework
SEM	Structural Equation Model
SESC	Self-Competence in Self-Esteem scale
SESL	Self-Liking in Self-Esteem scale
SLCS-R	Self-Liking/Self-Competence Scale-Revised
TRTB	Teacher`s Response to Bullying
WHO	World Health Organization

LIST OF APPENDICES

Appendix A Survey Questionnaires in English Version

Appendix B Survey Questionnaires in Chinese Version

**FAKTOR-FAKTOR YANG MEMPENGARUHI MANGSA BULI DALAM
PENDIDIKAN JASMANI DALAM KALANGAN PELAJAR SEKOLAH
MENENGAH: PERANAN PENGANTARAAN PENGHARGAAN KENDIRI**

ABSTRAK

Gejala buli telah menarik perhatian yang signifikan dalam kalangan pendidik, penyelidik, pembuat dasar, dan orang awam kerana mampu menjejaskan kesihatan fizikal dan psikologi yang serius kepada golongan yang terlibat. Individu yang cenderung membuli di dalam kawasan sekolah yang tersembunyi akan terus menyasarkan mangsa mereka semasa kelas Pendidikan Jasmani. Namun, memandangkan penyelidikan dalam bidang ini agak terhad, faktor khusus yang menyumbang kepada kejadian kes buli dalam konteks Pendidikan Jasmani masih belum diterokai sepenuhnya, khususnya di China. Untuk mengisi jurang ini, kajian ini telah membangunkan satu rangka kerja konseptual berdasarkan Rangka Kerja Ekologi Sosial. Rangka kerja ini mengandaikan bahawa kemahiran motor, sokongan rakan sebaya, tindak balas guru terhadap kes buli dan konflik keluarga boleh mempengaruhi mangsa buli, dengan penghargaan sendiri berfungsi sebagai variabel mediator dalam konteks Pendidikan Jasmani. Data dikumpul menggunakan borang soal selidik bercetak, kerana responden dilarang menggunakan telefon bimbit semasa waktu persekolahan yang menghalang mereka daripada melengkapkan tinjauan dalam talian. Sejumlah 1,672 pelajar sekolah menengah telah diambil untuk kajian ini, dengan 1,558 responden yang sah (purata umur = 15.62) dikekalkan selepas mengecualikan respons yang tidak lengkap atau tidak konsisten. Perisian SPSS dan SmartPLS digunakan untuk menganalisis data. Keputusan menunjukkan bahawa Model Pengukuran menunjukkan kebolehpercayaan dan kesahan yang mencukupi. Hubungan langsung

antara kemahiran motor, sokongan rakan sebaya, tindak balas guru terhadap buli, konflik keluarga dan mangsa buli didapati signifikan. Tambahan pula, penghargaan sendiri dikenal pasti sebagai pengantara yang signifikan dalam hubungan antara kemahiran motor, sokongan rakan sebaya, konflik keluarga, dan mangsa buli. Penemuan juga membuktikan perbezaan ketara dalam kesan kemahiran motor dan sokongan rakan sebaya terhadap mangsa buli antara kumpulan lelaki dan perempuan. Justeru, model yang dicadangkan menunjukkan kuasa penjelasan yang mantap untuk meramalkan mangsa buli dalam konteks ini. Kesimpulannya, kemahiran motor, sokongan rakan sebaya, tindak balas guru, dan konflik keluarga adalah peramal yang signifikan bagi mangsa buli dalam konteks Pendidikan Jasmani.

**FACTORS INFLUENCING BULLYING VICTIMIZATION IN PHYSICAL
EDUCATION AMONG MIDDLE SCHOOL STUDENTS: THE MEDIATING
ROLE OF SELF-ESTEEM**

ABSTRACT

Bullying has attracted significant attention from educators, researchers, policymakers, and the public due to its potential to pose serious physical and psychological health risks to those involved. It is often observed that individuals who engage in bullying in concealed areas of the school environment may continue to target their victims during physical education (PE) classes. However, the specific factors contributing to bullying victimization in PE contexts remain inadequately explored, particularly in China, where research on this field is limited. To fill this gap, the present study developed the conceptual framework based on the Social Ecological Framework (SEF). This framework hypothesized that motor skills, peer support, teachers' responses to bullying, and family conflict could influence bullying victimization, with self-esteem serving as a mediating variable in the PE setting. Data were collected using paper-based questionnaires, as respondents were prohibited from using mobile phones during school hours, preventing them from completing the survey online. A total of 1,672 middle school students were recruited for the study, with 1,558 valid responses (mean age = 15.62) being retained after excluding incomplete or inconsistent answers. Data were analyzed using SPSS and SmartPLS software. The results demonstrated that the measurement model exhibited adequate reliability and validity. Direct relationships between motor skills, peer support, teachers' responses to bullying, family conflict, and bullying victimization were found to be significant. Furthermore, self-esteem was identified as a significant mediator in the relationships between motor skills, peer

support, family conflict, and bullying victimization. The findings also revealed notable differences in the effects of motor skills and peer support on bullying victimization between male and female groups. Therefore, the proposed model demonstrates robust explanatory power for predicting bullying victimization in these contexts. In conclusion, motor skills, peer support, teachers' responses, and family conflict are significant predictors of bullying victimization in PE settings.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Bullying is a multifaceted issue that has drawn considerable attention from educators, researchers, policymakers, and the public. It affects individuals in various contexts, including schools, workplaces, and online platforms. Bullying has widely been defined as a form of intentional aggressive acts by individual(s) toward others who cannot defend him/herself (Olweus, 1993). The forms of traditional bullying can be recognized as verbal, physical, and indirect or relational behaviors, as well as the hurtful messages, calls, pictures or in other ways on the Internet are the main forms for cyberbullying (Gradinger et al., 2009; Dooley et al., 2009).

School bullying is a significant issue that has a negative impact on students' psychological well-being (Estévez et al., 2019), academic performance (Huang, 2020), and social relationships (Maunder & Crafter, 2018). Research demonstrates that bullying occurs to some degree in all school settings (Fuller et al., 2013), and physical education (PE) situations are viewed as a potential location for harassment (O'Connor & Graber, 2014).

Physical education classes can be a unique setting for bullying to occur due to the competitive and physical nature of the activities. In a survey of 528 American middle school students, Gano-Overway (2013) found that 28% had experienced bullying and 15% had perpetrated others during PE classes. Similarly, almost a third of investigated 1,818 students in Portuguese schools said that they had been a victim of bullying during PE (Melim & Ferreira, 2015). Evidence indicates that PE classes

constitute a venue for bullying in various parts of the world (Gråstén & Kokkonen, 2020).

Research has shown that bullying in PE classes can manifest in physical aggression, verbal insults, social exclusion, and body shaming, with vulnerable students being those perceived as weak, overweight, or less athletic (Bruner et al., 2020, pp. 257–275). Physical education enables every student to watch the successful and unsuccessful attempts at skill mastering made by others during skill execution, competitive play, and testing activities (Hand, 2016). In this sense, students who are less skilled may feel vulnerable and more likely to resort to distraction strategies like fake injuries, repeated shoe adjustments, and even absences from PE classes aiming not to display themselves (Tischler & McCaughtry, 2011).

Efforts to address bullying in schools have taken many forms, including school-wide policies, peer mentoring programs, and social-emotional learning curricula, and there is some evidence that a school-wide effort to investigate or prevent bullying can have a significant effect (Swearer et al., 2010). While a school-wide approach is the most effective method for addressing bullying, class-based interventions can enhance awareness and clarify behavioral expectations. Research indicates that bullying is often most prevalent within individual classrooms rather than in hallways (Fuller et al., 2013), highlighting the importance of addressing classroom dynamics. PE classes, in particular, offer a promising setting for exploring these issues.

However, bullying in physical education classes is a significant issue that can have lasting impacts on students' physical as well as mental well-being and yet to be understood very well in many countries, including China. Further studies are needed to consider the multiple factors contributing to bullying in PE, so that all members of

the school community have the possibility to understand and prevent bullying in this setting.

1.2 Background of Study

1.2.1 Social-Ecological Framework and Bullying

The social-ecological theory has been utilized to understand the conceptualization of bullying and victimization as demonstrated by previous studies (Garbarino & Delara, 2003; Gredler, 2005; Swearer & Espelage, 2004). It is clear that both bullying, and victimization are complex phenomena that are shaped by various factors, including the individual, peer group, family, school, community, and society, in a mutually reinforcing manner.

It is noteworthy that the entire model was not significant in the analysis of bullying behavior. As noted by Espelage et al. (2013), SEF offers a theoretical basis for exploring the complex issue of bullying. Its significance stems from its ability to assess the direct, indirect, and combined influences of different social contexts on involvement in bullying (Espelage et al., 2013). Thus, it provides support for the present research hypothesis and conceptual framework that bullying victimization are influenced by a range of factors, including the individual, family, peer group, and school, among others (Espelage & Swearer, 2010). In addition to the social-ecological framework, other theoretical explanations, such as dominance theory (Pellegrini, 2002), attraction theory (Bukowski et al., 2000), and others, was integrated into this research to provide a more comprehensive understanding and interpretation of bullying behavior.

1.2.2 Research on Bullying and PE

To date, bullying in school contexts has been investigated intensively, but the prevalence of bullying in physical education classes in many nations is less well understood (Borowiec et al., 2021). Physical education classes may have unique features that could facilitate or prevent bullying (Haegele & Kirk, 2018). For example, the physical nature of the class may create opportunities for students to bully their peers, or it could promote positive social interactions and teamwork (Fuller et al., 2013).

In the field of physical education, the majority of research has concentrated on determining the factors that are correlated with bullying in physical education. Gender difference (Borowiec et al., 2021), weight status (Peterson et al., 2012), inadequate motor skills (Bejerot et al., 2013), peer support (Lee et al., 2019) and teacher's response (Puhl et al., 2012) are the factors frequently examined by researchers. Besides, other factors that have been investigated for their direct or indirect association with bullying in physical education include classroom rules (O'Connor & Graber, 2014), homosexuality (Symons et al., 2014), the amount and type of physical activity (Benítez-Sillero et al., 2021), level of empathy (Arufe-Giráldez et al., 2019), and motivation (Granero-Gallegos et al., 2019).

Gender issues have been examined that it can influence the likelihood of experiencing bullying in physical education classes (Voss et al., 2023). Boys, in particular, may be more likely to be victims or perpetrators in PE classes than girls, (Borowiec et al., 2021). Similarly, Savucu et al. (2017) reported that male students were predominantly involved as both the aggressors and targets of physical, verbal, and social bullying, particularly towards peers of the same gender.

Weight status also has been identified as a risk factor for bullying in PE classes. Overweight or obese students may be more vulnerable to teasing or exclusion based on their body size (Mazur et al., 2017). The situation is further compounded by the fact that PE entails the public display of an individual's sports skills in front of both their peers and teachers, leading to a risk of weight-based victimization and bullying towards overweight and obese students (Ehlert et al., 2015).

Students who struggle with motor skills may become targets of bullying from their peers who perceive them as weak or incompetent, particularly in competitive or team sports settings (Bejerot et al., 2022). In a pilot study with sampling of 1043 in Sweden, Bejerot et al. (2010) found the strong correlation between bully victimization and poor motor skills, and 27% of the participants reported themselves were poor motor skills and had been bullied.

Peer support can have a positive impact on reducing bullying in PE classes (Puhl et al., 2011; Jiménez-Barbero et al., 2019). On the one hand, when students feel supported and included by their peers, they are less likely to experience bullying and more likely to feel motivated to participate in PE classes (Daniels & Leaper, 2006). However, on the other hand, bullying in physical education classes frequently occurs within a peer group, and peer support provided to the perpetrator can either encourage or discourage their behavior (Mierzwinski et al., 2019).

In terms of teachers' response to bullying, Campaert et al. (2017) examined the correlations between several types of teachers' responses to the incidents of bullying and victimization and the bullying behavior. The result showed that the types of responses, such as group discussion, disciplinary sanctions, mediation, and victim support, had significant effect on the occurrence of bullying in school (Campaert et al.,

2017). O'Connor and Graber (2014) argued that teachers' responses were connected with the occurrence of bullying in PE, and the atmosphere created by physical educators in their classrooms and schools might either encourage or discourage bullying (Fuller et al., 2013). Teachers' responses to bullying and victimization vary widely, but the most common approach is to discipline the perpetrators (Yoon et al., 2014). However, Bauman and Del Rio (2006) suggested that there may be instances where teachers fail to respond to bullying because they are unaware of the full extent of the issue. This is particularly challenging in physical education classes, where activities often involve some level of physical contact, making it difficult for teachers to distinguish between friendly contact and bullying (Fuller et al., 2013). When teachers respond to this phenomenon, it can shape students' perceptions of the severity of bullying, as interpreted by Campaert et al. (2017). Therefore, if teachers do not respond to bullying, students may interpret it as a sign that their teachers tolerate it.

Yet, particularly in physical education settings, existing studies have explored the influence of numerous contexts of bullying and victimization in isolation and rarely investigate these above noted contexts together. To show the necessity of looking at more than just individual predictors of bullying, this study examines the relationship between family, peers, and schools and bullying and victimization within PE settings.

1.2.3 Research on Bullying and PE in China

It is important to note that although many studies have been conducted in Western countries, this field of investigation is still in its infant stage in China. Bullying phenomenon is increasingly become public concern in China (Meng et al., 2022). In their recent review, Zhang and Jiang (2022) highlighted several factors associated with bullying in mainland China, identifying key group-related influences

such as gender, ethnic background, family socioeconomic status, school grade level (particularly upper grades), and life experiences. Despite these findings, research on these specific correlates within the Chinese context remains limited. Consequently, there is a clear need, as emphasized in existing literature, for further research to better understand the factors contributing to bullying in China (Zhang & Jiang, 2022). To date, there is lack of research on the combination of bullying and physical education in China, including both quantitative and qualitative studies. Little is known about the prevalence of bullying in physical education in China, do the same correlations of relevant factors present in the specific conditions of PE in China? Therefore, it is essential to investigate the issue to obtain the detailed results that is relevant to China.

1.2.4 Factors in the Current Study

The present study aims to expand the knowledge of bullying behavior in physical education settings by adopting a social-ecological theoretical framework, which considers the multi-level factors associated with bullying. Social-Ecological Framework posits that human development is influenced by multiple interconnected systems, ranging from the microsystem, e.g., individual, peer, family, school, to the macrosystem, such as cultural norms, societal structures (Swearer & Espelage, 2004).

The focus on individual, peer, family, and school-level factors aligns with the framework's emphasis on proximal processes, those occurring in the immediate environments where students interact most directly. In the context of PE, these interactions are particularly salient, as PE classes involve peer collaboration and competition, teacher-student dynamics, and the influence of family support and expectations. These microsystemic factors are not only theoretically relevant but also

observable and measurable through self-report instruments commonly used in school-based research.

In contrast, macrosystem-level variables, such as cultural values or societal priorities, were excluded due to both conceptual and methodological limitations (Espelage et al., 2012). These broader influences, while important, are less directly experienced by adolescents and are difficult to operationalize in a quantitative design relying on student-level data. Additionally, measuring such factors reliably would typically require multi-level modeling or cross-cultural comparisons, which were beyond the scope of the current research. Overall, the selected focus ensures theoretical alignment with the PE context and enhances the feasibility, clarity, and validity of the data collected.

1.3 Problem Statement

In April 2016, China's State Council has released a notice titled "Notice on the Special Management of Campus Bullying" to address the growing problem of bullying in schools across the country (Yuan, 2020). According to the national survey, the incidences of reported bullying, bullying others and witnessing bullying are 26.10%, 9.03% and 28.90%, respectively (Han et al., 2017). It is well known that it presents a threat to the physical or psychological health problem of those who are involved in bullying (Montes et al., 2022), therefore it is a considerable issue that needs to be addressed.

Bullies who once cornered their victims in playground probably also torment them in physical education classes (Hand, 2016). Evidence suggested that individual factors, such as motor skills (Grimminger, 2014), weight status (Borowiec et al., 2021), and gender difference (Bruner et al., 2020), peer group factors (Shin et al., 2019) as

well as school factors (Wang et al., 2015) are highly related with bullying in PE classes. Yet, to date, there has been inadequate research with family factors on the interpretation of bullying in PE settings. School bullying has been investigated extensively based on social-ecological framework through individual, family, peer group, school, and other levels in many studies. However, in the field of physical education, most of the existing studies explored the correlates of bullying phenomenon in isolation, comprehensive research with social-ecological perspectives on bullying in PE settings is less documented (O'Connor & Graber, 2014).

In addition, many studies have investigated the relationship between associated factors and bullying with a particular focus on the mediating role of self-esteem. Research indicated that individuals with low self-esteem are more often subjected to victimization compared to those with higher levels of self-esteem (Tsaousis, 2016). According to Zhao et al. (2021), self-esteem plays a mediating role between school climate and bullying victimization, and Ersozlu et al. (2020) indicated that self-esteem mediates the relationship between parental support and bullying perpetration/victimization. In addition, Fox and Farrow (2009) examined the mediating role of self-esteem between weight status and being a victim of bullying. Moreover, gender difference (Zhao et al., 2021) and weight status (Fox & Farrow, 2009) can function as moderators on the mediating effect of self-esteem. However, there is a need for further research to explore whether self-esteem mediates the relationship between these social-ecological factors and bullying in physical education settings. Also, given the physical education settings, gender difference and weight status may affect the mediating effect of self-esteem on correlates and bullying, therefore, the moderating role of gender and weight status need to be examined.

There is a research gap in the area of bullying within China compared to other countries. According to a recent review (Zhang & Jiang, 2022) on the research practices of Chinese mainland, the majority of scholarly works on bullying are either descriptive or introductory studies of Western theories or policies, and the presence of empirical studies on bullying is scarce (Zhang & Jiang, 2022; Meng et al., 2022). They identified several factors associated with bullying in mainland China, including gender, ethnicity, family socioeconomic background, school grade level, and personal life experiences (Zhang & Jiang, 2022). Despite these insights, there is a lack of in-depth research examining these specific factors in the Chinese context. Therefore, consistent with existing literature, additional studies are needed to clarify the correlates of bullying within China (Zhang & Jiang, 2022). In addition, the limited research on bullying within PE settings in China has resulted in a lack of understanding regarding its prevalence and underlying causes. Although bullying research within PE settings has been implemented in Western countries, however, evidence suggested there are significant differences between Eastern and Western countries in bullying patterns, coping skills, and attitudes against bullying, possibly due to cultural values and educational systems (Smith et al., 2016), hence, it may be inappropriate to generalize findings from Western studies on bullying and then directly apply their experiences to China (Meng et al., 2022). To address this gap, quantitative research with structural equation modeling (SEM) analysis may provide a comprehensive understanding of this issue. This could establish the prevalence of bullying in physical education and identify associated factors.

1.4 Research Objectives

The study seeks to explore the relationships between a range of factors such as motor skills, teacher's response, family conflict, peer support, gender, weight status, self-esteem, and bullying victimization.

- i) To assess whether motor skill has association with self-liking, self-competence, and bullying victimization among students in physical education in China.
- ii) To examine whether peer support associated with self-liking, self-competence, and bullying victimization among students in physical education in China.
- iii) To identify whether teachers' response to bullying related to self-liking, self-competence, and bullying victimization among students in physical education in China.
- iv) To determine whether family conflict has association with self-liking, self-competence, and bullying victimization among students in physical education in China.
- v) To examine whether self-liking and self-competence have association with bullying victimization among students in physical education in China.
- vi) To identify whether self-liking and self-competence mediate the relationship between motor skills, peer support, teachers' response to bullying, family conflict and bullying victimization.
- vii) To identify whether gender moderate the relationship between motor skills, peer support, teachers' response to bullying, family conflict, self-liking, and self-competence and bullying victimization.

- viii) To identify whether BMI moderates the relationship between motor skills, peer support, teachers' response to bullying, family conflict, self-liking, and self-competence and bullying victimization.

1.5 Research Questions

- 1) Does motor skills influence self-liking, self-competence, and bullying victimization among teenagers in physical education in China?
 - a) *Does motor skills influence self-liking among teenagers in physical education in China?*
 - b) *Does motor skills influence self-competence among teenagers in physical education in China?*
 - c) *Does motor skills influence bullying victimization among teenagers in physical education in China?*
- 2) Does peer support influence self-liking, self-competence, and bullying victimization among teenagers in physical education in China?
 - a) *Does peer support influence self-liking among teenagers in physical education in China?*
 - b) *Does peer support influence self-competence among teenagers in physical education in China?*
 - c) *Does peer support influence bullying victimization among teenagers in physical education in China?*
- 3) Does teachers' response to bullying influence self-liking, self-competence, and bullying victimization among teenagers in physical education in China?

- a) *Does teachers` response to bullying influence self-liking among teenagers in physical education in China?*
 - b) *Does teachers` response to bullying influence self-competence among teenagers in physical education in China?*
 - c) *Does teachers` response to bullying influence bullying victimization among teenagers in physical education in China?*
- 4) Does family conflict influence self-liking, self-competence, and bullying victimization among teenagers in physical education in China?
- a) *Does family conflict influence self-liking among teenagers in physical education in China?*
 - b) *Does family conflict influence self-competence among teenagers in physical education in China?*
 - c) *Does family conflict influence bullying victimization among teenagers in physical education in China?*
- 5) Do self-liking and self-competence influence bullying victimization among teenagers in physical education in China?
- a) *Does self-liking influence bullying victimization among teenagers in physical education in China?*
 - b) *Does self-competence influence bullying victimization among teenagers in physical education in China?*

- 6) Do self-liking and self-competence mediate the relationship between following variables and bullying victimization among teenagers in physical education in China?
- a) *Does self-liking mediate the relationship between motor skills and bullying victimization among teenagers in physical education in China?*
 - b) *Does self-competence mediate the relationship between motor skills and bullying victimization among teenagers in physical education in China?*
 - c) *Does self-liking mediate the relationship between peer support and bullying victimization among teenagers in physical education in China?*
 - d) *Does self-competence mediate the relationship between peer support and bullying victimization among teenagers in physical education in China?*
 - e) *Does self-liking mediate the relationship between teachers` response to bullying and bullying victimization among teenagers in physical education in China?*
 - f) *Does self-competence mediate the relationship between teachers` response to bullying and bullying victimization among teenagers in physical education in China?*
 - g) *Does self-liking mediate the relationship between family conflict and bullying victimization among teenagers in physical education in China?*

- h) Does self-competence mediate the relationship between family conflict and bullying victimization among teenagers in physical education in China?*
- 7) Does gender moderate the relationship between following variables and bullying victimization among teenagers in physical education in China?
 - a) Does gender moderate the relationship between motor skills and bullying victimization among teenagers in physical education in China?*
 - b) Does gender moderate the relationship between peer support and bullying victimization among teenagers in physical education in China?*
 - c) Does gender moderate the relationship between teachers' response to bullying and bullying victimization among teenagers in physical education in China?*
 - d) Does gender moderate the relationship between family conflict and bullying victimization among teenagers in physical education in China?*
 - e) Does gender moderate the relationship between self-liking and bullying victimization among teenagers in physical education in China?*
 - f) Does gender moderate the relationship between self-competence and bullying victimization among teenagers in physical education in China?*

- 8) For male and female groups, does BMI moderate the relationship between following variables and bullying victimization among teenagers in physical education in China?
- a) *Does BMI moderate the relationship between motor skills and bullying victimization among males and females in physical education in China?*
 - b) *Does BMI moderate the relationship between peer support and bullying victimization among males and females in physical education in China?*
 - c) *Does BMI moderate the relationship between teachers' response to bullying and bullying victimization among males and females in physical education in China?*
 - d) *Does BMI moderate the relationship between family conflict and bullying victimization among males and females in physical education in China?*
 - e) *Does BMI moderate the relationship between self-liking and bullying victimization among males and females in physical education in China?*
 - f) *Does BMI moderate the relationship between self-competence and bullying victimization among males and females in physical education in China?*

1.6 Significance of the Study

Firstly, this study can contribute to the body of knowledge on bullying in physical education, particularly in China. This can help educators and policymakers

well understand the prevalence and develop better strategies to prevent and address bullying in this context. This research can also provide insights into the prevalence, types, and causes of bullying in physical education in China, which can inform the design and implementation of intervention programs.

Secondly, the use of quantitative approach can provide a more comprehensive understanding of the issue of bullying in physical education in China. The quantitative component can provide statistical data on the prevalence, incidence, and correlates of bullying.

Third, improving teacher training: This study can also inform the development of training programs for physical education teachers to help them recognize and address bullying. By understanding the teachers' association with occurrence of bullying, this study can provide insights into the types of training that are most effective in this context.

Fourth, enhancing parental involvement: This study can highlight the importance of parental involvement in preventing and addressing bullying in physical education. By understanding the perspectives of family conflict, this study can inform the influence of family factors that are associated with bullying, so that further research on strategies to engage parents in addressing bullying could be made based on the study.

Last but not least, enhancing student well-being: This study can have practical implications for students' well-being by providing insights into the types of bullying that are most prevalent in physical education settings and what are the experiences for victims. This can inform the development of targeted interventions that address the specific needs of students who have experienced bullying.

1.7 Limitation of the Study

The present study is constrained to a focus on individual, family, school, and peer-level factors that are associated with bullying behavior. Actually, there are social-cultural elements which refer to broader factors that are consistent with the individual, family, school, and peer group that exist in the social-ecological theory as a whole. However, the empirical examination of social-cultural elements within this theoretical framework poses a challenge for researchers in this field. Considering the feasibility of quantitative investigation of this research, the study excludes the perspective of social-cultural elements of SEF in current research.

1.8 Definition of Terms

1.8.1 Independent Variables

1.8.1(a) Motor skills

Motor skill level can be conceptualized as the level of proficiency exhibited in a diverse array of motor tasks, encompassing the quality of movement, coordination, and control that base the attainment of a specific motor outcome (Payne & Isaacs, 2016). For this study, motor skills were measured by sports competence sub-scale of Physical Self-Description Questionnaire developed by Marsh et al. (1994).

1.8.1(b) Teachers` Response to Bullying

Teachers` response to bullying refers to approaches in responding to bullying and victimization, ranging from whole-class discussions of rules to peer-mediated conflict resolution or reporting incidents to higher authorities or parents (Campaert et al., 2017). Some responses are targeted toward the perpetrator, such as disciplinary

measures for bullying behavior or conveying the message that such behavior is unacceptable (Yoon & Kerber, 2003). In this study, teachers' response towards incidents of bullying and victimization was assessed by Teacher's Response to Bullying Questionnaire (TRBQ) which consists of student-reported items that has been examined by Campaert et al. (2017).

1.8.1(c) Peer Support

The definition of peer support pertains to an individual's subjective perception of receiving general or specific supportive actions from individuals within their social circles (Malecki & Demary, 2002). Operationally, emotional support can take many forms, including trust, affection, and empathy. Instrumental assistance consists of resources like money and time. Informational support is the provision of advice or information on a specific topic, whereas appraisal support is the provision of evaluative feedback to individuals (Malecki & Demary, 2002). In this research, peer support was assessed using the 12 items Classmate Support Scale, which is a subscale of the Children and Adolescent Social Support Scale (CASSS) (Malecki & Demary, 2002). Participants provided responses to the items by indicating the frequency of their experiences using a 5-point Likert scale.

1.8.1(d) Family Conflict

Family conflict refers to a state of active resistance that arises between individuals belonging to the same family unit. It can manifest in diverse manners, such as through verbal, physical, sexual, financial, or psychological means. The conflicts may encompass various combinations of family members, such as between parents and children, or among siblings (Marta & Alfieri, 2014). Operationally in this study,

family conflict was assessed using the Chinese version of Family Conflict subscale of the Family Environment Scale (Tao et al., 2015).

1.8.2 Dependent Variable

1.8.2(a) Bullying Victimization

A general definition of bullying victimization that widely be used is that a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students (Olweus, 1993). Operationally in this study, bullying victimization refers to various forms of aggressive behavior, including physical and verbal aggression, social exclusion, threat, and symbolic acts of aggression. Revised Olweus Bully/Victim Questionnaire (Olweus, 2006) was used to measure the bullying victimization within physical education classes in China.

1.8.3 Mediating Variable

1.8.3(a) Self-Esteem

Self-esteem conceptually refers to self-competence and self-liking (Tafarodi & Swann Jr., 1995; 2001). Self-competence is the overall sense of oneself as capable, effective, and in control (Tafarodi & Swann Jr., 1995), whereas self-liking is our affective judgment of ourselves, our approval or disapproval of ourselves, and internalized social values that valuative experience of oneself as a social object, a good or bad person (Tafarodi & Swann Jr., 1995; 2001). In this study, Chinese version of Self-Liking/Self-Competence Scale-Revised (SLCS-R) was applied in the current research to measure self-esteem. The SLCS-R consists of 16 items in total, among which 8 items for each of the 2 dimensions.

1.8.4 Moderating Variables

1.8.4(a) Weight Status

In the context of this study, Body Mass Index (BMI) was applied to indicate participants' weight status. The BMI was defined as the weight in kilograms divided by the square of the height in meters [kg/m^2] (Borowiec et al., 2021). Students' weight and height was obtained by self-report items listed on the questionnaire demographic information section. Based on the results, and according to the categories of the BMI cutoff values in China, four groups of BMI status were created: underweight (Male: $\text{BMI} \leq 15.6$; Female: ≤ 15.2), normal weight (Male: $15.7 \leq \text{BMI} \leq 22.5$; Female: $15.3 \leq \text{BMI} \leq 22.2$), overweight (Male: $22.6 \leq \text{BMI} \leq 25.2$; Female: $22.3 \leq \text{BMI} \leq 24.8$), and obese (Male: ≥ 25.3 ; Female: $\text{BMI} \geq 24.9$) (Ministry of Education of the People's Republic of China, 2014).

1.8.4(b) Physical Education

Physical education refers to an educational discipline that focuses on the learning that can occur for students when they engage in physical activity, fitness, and health (Pate, 1988). It is not just about physical fitness or exercise, but rather a broader field that may encompass the cognitive, affective, and psychomotor domains of learning (Johnson & Turner, 2016).

1.9 Summary of the chapter

This study examines the association between social-ecological factors and bullying victimization within PE settings. The chapter begins by providing an overview of the harmful effects of being bullied and the high prevalence of these issues among adolescents. In addition, the chapter presents the problem statement, outlines

the research objectives as well as questions, and articulates the hypotheses for the study. It emphasizes the imperative to address the existing gap concerning the association between bullying victimization and motor skills, peer support, teachers` response as well as family conflict. Finally, the chapter discusses the limitations of this study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The main aim of this study is to examine the correlation between social-ecological factors and bullying victimization in physical education settings in China. Firstly, in this chapter, an overview of employed theoretical framework was illustrated with details, and the conceptual framework was developed based on SEF. Second, from section 2.4 to 2.11, it presents an empirical review of previous studies to explain the theoretical basis of school bullying victimization and its associated factors. Emphasis was given to individual characteristics, peer problems, teacher issues, family issues, and the mediator as well as moderators which were proposed in conceptual framework. In addition, the corresponding hypotheses were also developed in each section based on the review of literature. Finally, a summary of the differences between previous and current research ends this chapter.

2.2 Theoretical Framework

2.2.1 The Application of Social Ecological Framework

This section employs Bronfenbrenner's (1979) classic ecological framework as a foundation to demonstrate the interrelationships among the individual, various settings, and involvement in bullying and victimization behaviors. The theoretical framework assumes that the conduct of children and adolescents is influenced by a multitude of interrelated contextual systems. Specifically, it holds that interpreting the phenomenon of bullying requires an examination within the individual, family, peer, school, and community domains (Bronfenbrenner, 1979; Espelage et al., 2012).

Bullying victimization are ecological issues that are sustained and developed through time due to the complicated interaction between inter- and intra-individual variables (Swearer & Doll, 2001). To comprehensively understand and successfully tackle bullying victimization, it is imperative to grasp the social-ecological factors that establish and sustain bullying and victimization behaviors.

The belief that individuals are influenced by various circumstances is not a fresh idea. Numerous academic works have been dedicated to exploring the mutual relationship between the individual, family, peer group, school, community, and culture (Bronfenbrenner, 1979; Burstyn et al., 2001; Coie & Jacobs, 1993; Linney, 2000; Garbarino, 2001). This intricate interplay is visually represented in Figure 2.1. The theoretical understanding of bullying behaviors has been come towards this social-ecological perspective (Swearer & Doll, 2001; Olweus, 1993). In this sense, it can be argued that instances of bullying do not generally appear in one single reason. The occurrence of this phenomenon is influenced by complicated interaction among various factors such as the individual, family, peer group, school, community, and culture, which may either promote or hinder its emergence (Swearer & Espelage, 2004).