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School connectedness and psychological resilience as mediators in the relationship between childhood abuse and suicidal ideation among Chinese adolescents

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ABSTRACT

Background: Suicide among adolescents is a huge public health concern around the world. Although childhood abuse has been established as a substantial risk factor for suicide behaviours, potential mediators in this relationship remain unclear.

Objective: This study aimed to examine the mediating roles of school connectedness and psychological resilience in the association between childhood abuse and suicidal ideation among Chinese high school students.

Methods: The sample involved 1607 adolescents from four high schools in Central China. Structural equation modelling (SEM) was conducted to investigate the mediation effects of school connectedness and psychological resilience on the relationship between childhood abuse and suicidal ideation.

Results: The prevalence of suicidal ideation during the past week was 21.9%. Childhood abuse was positively related to the development of suicidal ideation directly and indirectly through school connectedness and psychological resilience. School connectedness and psychological resilience were also partial mediators of all three types of childhood abuse (emotional abuse, physical abuse and sexual abuse) when the types were examined separately.

Conclusions: Suicidal ideation was widespread among Chinese high school students. Psychological resilience and school connectedness could attenuate the detrimental impact of childhood abuse on suicidal ideation. Findings underscore the improvement of psychological resilience and the connection to the school would be beneficial to suicide prevention among Chinese adolescents with childhood abuse.

La conexión escolar y la resiliencia psicológica como mediadores en la relación entre el abuso infantil y la ideación suicida entre adolescentes chinos

Antecedentes: El suicidio entre los adolescentes es un gran problema de salud pública en todo el mundo. Aunque el abuso infantil se ha establecido como un factor de riesgo sustancial para las conductas suicidas, los mediadores potenciales en esta relación siguen sin estar claros.

Objetivo: Este estudio tuvo como objetivo examinar los roles mediadores de la conexión escolar y la resiliencia psicológica en la asociación entre el abuso infantil y la ideación suicida entre estudiantes de secundaria chinos.

Métodos: La muestra involucró a 1607 adolescentes de cuatro escuelas secundarias en China Central. Se realizó un modelo de ecuaciones estructurales (SEM) para investigar los efectos de mediación de la conectividad escolar y la resiliencia psicológica en la relación entre el abuso infantil y la ideación suicida.

Resultados: La prevalencia de ideación suicida durante la última semana fue de 21,9%. El abuso infantil se relacionó positivamente con el desarrollo de la ideación suicida directa e indirectamente a través de la conexión escolar y la resiliencia psicológica. La conexión escolar y la resiliencia psicológica también fueron mediadores parciales de los tres tipos de abuso infantil (abuso emocional, abuso físico y abuso sexual) cuando los tipos se examinaron por separado.

Conclusiones: La ideación suicida estuvo muy extendida entre los estudiantes de secundaria chinos. La resiliencia psicológica y la conexión escolar podrían atenuar el impacto perjudicial del abuso infantil en la ideación suicida. Los hallazgos subrayan que la mejora de la resiliencia psicológica y la conexión con la escuela serían beneficiosas para la prevención del suicidio entre los adolescentes chinos con abuso infantil.

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PALABRAS CLAVE

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关键词

童年虐待; 自杀意念; 学校联结; 心理韧性; 中国青少年

HIGHLIGHTS

- Adolescent suicide is a major public health concern worldwide.
- Childhood abuse exerts a negative effect on suicide behaviours.
- School connectedness and psychological resilience mediated the relationship between childhood abuse and suicidal ideation.

童年虐待对中国青少年自杀意念的影响：心理韧性和学校联结的中介作用

背景：青少年自杀已经成为世界范围内重要的公共卫生问题。尽管既往研究已经证实童年虐待是自杀行为关键影响因素，但中介因素尚不清楚。

目的：本研究旨在探讨学校联结和心理韧性在中国高中生童年虐待与自杀意念之间的中介作用。

方法：样本涉及中国某中部城市四所高中的1607名青少年。结构方程模型(SEM)用于考查学校联结和心理韧性在童年虐待和自杀意念之间的中介作用。

结果：过去一周的自杀意念发生率为21.9%。童年虐待与自杀意念直接相关，童年虐待也可以通过心理韧性和学校联结间接影响自杀意念。心理韧性和学校联结在不同类型童年虐待(情感虐待、身体虐待和性虐待)与自杀意念之间发挥部分中介作用。

结论：自杀意念在中国高中生中普遍存在。心理韧性和学校联结可以减轻童年虐待对自杀意念的不良影响。本研究提示改善青少年的心理韧性和学校联结有助于有童年虐待经历青少年的自杀预防。

1. Introduction

Suicide in adolescents has emerged as a major public health concern in recent years. The State of the World's Children 2021 report shows that about 46,000 adolescents die by suicide each year worldwide, making suicide one of the top five causes of mortality for their age group (UNICEF, 2021). Suicidal behaviour is typically conceptualized as a continuum of severity from passive death wishes to suicidal ideation, planning, and attempt (Ribeiro et al., 2016). Suicidal ideation has been identified as a key determinant of risk for suicide, a crucial area of suicide intervention. A meta-analysis revealed that the global lifetime and 12-month prevalence of suicidal ideation in children and adolescents was 18.0% and 14.2%, respectively (Lim et al., 2019). Researchers reported similar figures in Chinese adolescents. Several surveys in different parts of the country reported a 12-month prevalence of suicidal ideation among adolescents, which ranged from 14.8% to 21.0% (Kuang et al., 2020; Wan et al., 2019; Xin et al., 2017). Children in China face rising levels of stress and competitiveness at school, as well as high parental expectations and rapid transition of socio-economic realities (Zhao et al., 2015). This environment may pose a threat to suicidal behaviour, compounded by the absence of mental health services (Chen et al., 2018), making suicide as an important cause of death among Chinese adolescents.

Numerous risk and protective factors for suicidal ideation have been identified. These factors could be delineated in explanatory models, which may assist to understand the identification, management, and prevention of suicidal behaviours (van Heeringen, 2012). The diathesis-stress model assumes that suicidal behaviours involve a vulnerability or diathesis as a distal risk factor, which predisposes individuals to such behaviours in the face of stress, i.e. the interaction of diathesis with stress leads to the development of maladaptive behaviours or psychopathology

(Rubinstein, 1986; Schotte and Clum, 1987). The diathesis portion may take the form of biological factors, while the stress component in this interactive context could involve any of several stressful life events that derange a person's normal, healthy regulation of thoughts and emotions (van Heeringen, 2000).

Childhood abuse (e.g. emotional, physical, and sexual abuse) is a well-established distal factor for suicidal behaviours by altering normal trajectories of brain development, which places adolescents at higher risk of mental health problems (Peverill et al., 2019). Unsettled traumas during childhood and adolescence increase the risk for suicidal ideation, which in turn leads to suicide attempts or death by suicide (Felitti et al., 1998). A meta-analysis revealed that childhood sexual abuse was related to suicide attempts (Hailes et al., 2019). Likewise, evidence from China suggested that emotional, physical, and sexual abuse independently predicted adolescents' suicidal ideation (Wan et al., 2019). Research shows that childhood abuse types do not contribute equal impacts on outcomes. For instance, Negri (2020) compared the specific effects of different types of childhood abuse, and found that emotional, physical, and sexual abuse were predictors of both internalizing and externalizing behaviours among adolescents, with emotional abuse showing a strong correlation with all outcomes. Similar findings were reported by Gibb et al. (2007) among adult psychiatric outpatients, childhood emotional abuse was more strongly related to diagnoses of major depression than to physical or sexual abuse. Hence, we hypothesized that childhood abuse was positively related to the development of suicidal ideation, and that the contribution of each type of childhood abuse were different.

Not every adolescent following exposure to childhood abuse exhibits suicidal ideation, suggesting the existence of a diathesis in some but not all adolescents. The presumption of the continuous diathesis could clarify the variation in suicidal ideation between individuals, for instance, why individuals react differently

to similar childhood abuse ranging from suicidal ideation to attempt and completed suicide. This could be due to the presence or absence of diathesis (van Heeringen, 2000) and protective factors, such as psychological resilience and school connectedness. Psychological resilience, an individual attribute of psychological resources, is the capacity and dynamic process of maintaining health in the face of adversity or stress (Kalisch et al., 2015). The diathesis-stress model suggests that continuous exposure to childhood adversity eventually reduces the protective role of resilience against stress, because of which suicidal behaviours increase (O'Connor and Kirtley, 2018). This notion of the role of protective factors is discussed in its improved version which describes how an individual can cope with the negative effects of stress and vulnerability. It argues that when there are fewer stressors or there are enhanced buffering factors, the person moves to a more stable psychosocial and emotional state (Baldry & Farrington, 2005). Several prior studies indicated that resilience protected against suicidal risks (Cong et al., 2019; Sher, 2019). On the other hand, childhood traumas have been shown to predict diminished levels of psychological resilience (Tian et al., 2021; Wright et al., 2013). As noted by Roy et al. (2011), psychological resilience prevented individuals who were exposed to childhood traumas from suicide attempts. Further, a study among Chinese adolescents revealed that resilience partially mediated the effect of childhood maltreatment on suicidal ideation (Chen et al., 2021). Therefore, we hypothesized that psychological resilience mediated the relationship between childhood abuse and suicidal ideation.

School connectedness is an additional important protective factor related to suicidal ideation. School is the setting where adolescents spent most of their time, thus the quality of school connectedness plays a vital role in suicidality prevention, particularly for adolescents with childhood traumas. School connectedness has emerged as a crucial protective factor of suicidal behaviours (Lensch et al., 2021; Zhang et al., 2021), which refers to the psychological belief in which students perceive they are accepted, respected, supported, as well as included within the context of the school (Goodenow, 1993). Three dimensions of school connectedness are emphasized in prior literature, namely teacher support, school belonging, and classmate support (McNeely & Falci, 2004; Yu et al., 2011). A study conducted among 80 high schools found that one dimension of school connectedness (teacher support) protected against suicide attempts (McNeely & Falci, 2004). A longitudinal study also documented that school experiences (feeling connected to school, enjoyment of school, and perception of teachers as fair) were negatively linked to suicidal behaviours (Kidger et al.,

2015). Further, school connectedness as a protective factor reduced the risk of suicidal behaviour associated with sexual abuse among young people (Eisenberg et al., 2007). School connectedness is shown to foster psychological resilience (Sharp et al., 2018), which buffers the negative effects of adverse childhood experiences on suicide behaviours (Areba et al., 2021). Hence, we assumed that school connectedness mediated the association between childhood abuse and suicidal ideation.

Despite the recognition of the strong link between childhood abuse and suicidal ideation among adolescents, underlying mediators in this relationship remain unclear. This study extends previous research which examines the mediating roles of school connectedness and psychological resilience in the relationship between childhood abuse and suicidal ideation among Chinese adolescents.

2. Methods

2.1. Participants

We conducted a cross-sectional survey in a prefecture-level city from Henan Province, Central China from May to June 2021. Participants were recruited through stratified random cluster sampling. First, we selected four high schools (one private and three public). Next, four or five classes were randomly sampled from Grades 10 and 11 at each school site. We did not recruit students in Grade 12, as they were preparing for the China's national college entrance examination. Specifically, in Grades 10 and 11 at each school site, we assigned every class a number. We used the random number function in Microsoft Excel to generate random numbers. In this stage, all students in the selected classes were invited to complete pencil-paper-based questionnaires ($n = 1899$). 249 students refused to participate in this study. We further excluded participants who failed to respond to the key variables at the measure level ($n = 43$). Finally, 1607 adolescents aged 14–19 years were eligible for data analysis (See Appendix 1). 53.1% of participants were male, 46.4% were in 10th grade, and half came from urban. 11.5%, 79.9% and 8.6% reported low, middle and high family economic status. The average paternal educational year and maternal educational year was 10.89 and 9.99, respectively. The procedure was approved by the Ethics Committee of Wuhan University. Both participants and parents provided informed consent.

2.2. Measures

2.2.1. Childhood abuse

The Childhood Trauma Questionnaire-Short Form (CTQ-SF) was used to evaluate childhood abuse

(Bernstein et al., 2003), which has been validated in the Chinese context (He et al., 2019). In the current study, we used 15 items to measure emotional abuse (e.g. I felt that someone in my family hated me), sexual abuse (e.g. Someone molested me), and physical abuse (e.g. I was punished with a belt, a board, a cord, or some other hard object). All items are constructed as statements beginning with the phrase ‘When I was growing up ...’. Each item was rated on a 5-point scale ranging from 1 (Never) to 5 (Always). In this study, three subscales demonstrated good internal reliability (emotional abuse: Cronbach’s $\alpha = 0.77$; physical abuse: Cronbach’s $\alpha = 0.77$; sexual abuse: Cronbach’s $\alpha = 0.75$).

2.2.2. Suicidal ideation

Self-reported suicidal ideation was measured based on response to a single question, ‘During the past week, did you ever think about killing yourself?’ Response options ranged from 0 to 3 (0 = Rarely or none of the time, 1 = Some or little of the time, 2 = Moderately or much of the time, 3 = Most or almost all the time). This single-item instrument for suicidal ideation has been widely used in the Chinese context (Lee et al., 2020). The probabilities of ‘1–3’ were low in the current study (18.2%, 2.7%, and 1.0%, respectively). Hence, we recoded suicidal ideation as a binary variable, and an answer of 1 or greater was defined as positive for suicidal ideation.

2.2.3 Psychological resilience

Psychological resilience was assessed by the 10-item Connor-Davidson Resilience Scale (CD-RISC) (Campbell-Sills & Stein, 2007; Connor & Davidson, 2003), which has been validated in Chinese adolescents (She et al., 2020). Sample items included ‘I am able to adapt when changes occur.’ and ‘I can deal with whatever comes my way.’ Each item was scored on a 5-point Likert scale ranging from 0 (not true at all) to 4 (true nearly all the time). All items were summed to yield a total score, with higher scores reflecting greater psychological resilience. The Cronbach’s α coefficient was 0.89 in the current study.

2.2.4. School connectedness

Based on previous research (McNeely et al., 2002; Resnick et al., 1997), 10 items were used to evaluate school connectedness, including teacher support (items 1, 5, and 8), school belonging (items 3, 6, and 9), and classmate support (items 2, 4, 7, and 10) (Yu et al., 2011). This scale has been validated among Chinese and American youth (Zhang et al., 2011). Sample items included ‘I feel safe and happy in my school.’ and ‘The teachers at this school treat students fairly.’ Response options ranged from 1 to 5 (1 = strongly agree, 5 = strongly disagree). Items 1 and 10 were reverse scored; thus, higher total scores indicated greater school connectedness (Cronbach’s $\alpha = 0.86$).

2.3. Statistical analysis

First, descriptive statistics and Pearson correlations were generated for key variables. Next, structural equation modelling (SEM) was used to test the mediation effects of psychological resilience and school connectedness in the relationship between childhood abuse and suicidal ideation (see Figure 1). As suicidal ideation was a binary outcome, weighted least squares mean and variance adjusted (WLSMV) estimator was used (Nguyen et al., 2016). The bias-corrected bootstrap method was performed to examine the significance of total and indirect effects, and construct a 95% confidence interval (CI) based on 1000 samples. The goodness-of-fit indices: Comparative Fit Index (CFI) value > 0.90 , Tucker-Lewis Fit Index (TLI) > 0.90 , and root mean square error of approximation (RMSEA) ≤ 0.08 were considered acceptable (Kline, 2015). We also explore the independent associations of emotional abuse, sexual abuse, and physical abuse to suicidal ideation. SEM was conducted in Mplus 8.0, while other statistical analyses were performed using SPSS 26.0. A probability of $p < .05$ was considered statistically significant.

3. Results

21.9% of high school students reported suicidal ideation during the past week. The correlation coefficients

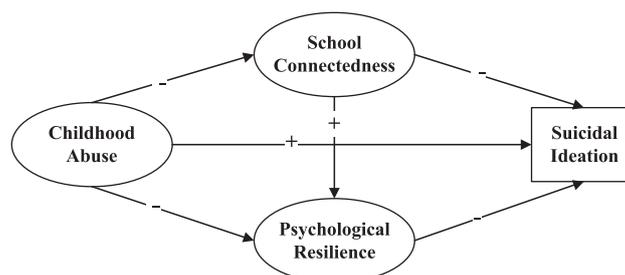


Figure 1. The hypothesized model.

Table 1. Correlation matrix of the key study variables.

Variables	1	2	3	4	5	6
1. Emotional abuse	1					
2. Physical abuse	0.46***	1				
3. Sexual abuse	0.37***	0.34***	1			
4. Psychological resilience	-0.19***	-0.10***	-0.07**	1		
5. School connectedness	-0.27***	-0.16***	-0.19***	0.41***	1	
6. Suicidal ideation	0.32***	0.16***	0.15***	-0.23***	-0.28***	1
M	6.59	5.32	5.58	25.98	35.92	0.22
SD	2.05	1.21	1.65	6.67	6.88	0.41

M, Mean; SD, standard deviation.

*** $p < .001$, ** $p < .01$.

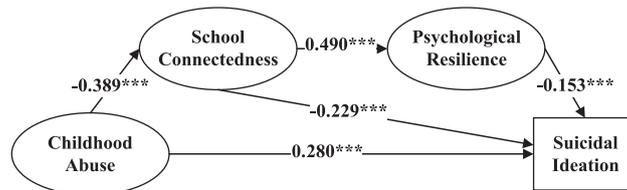


Figure 2. Standardized coefficients of the final mediation model.*** $p < .001$.

of all key study variables were statistically significant at $p < .01$ level (See Table 1).

We tested the hypothesized model, and the effect of childhood abuse on psychological resilience ($\beta = -0.023$, $p = .481$) was non-significant. Therefore, this path was eliminated from the final model for parsimony (See Figure 2). The overall fit of the final model was good: CFI = 0.933, TLI = 0.921, and RMSEA = 0.049 (90% CI: 0.044–0.053). As shown in Table 2, childhood abuse had a direct effect on suicidal ideation ($\beta = 0.280$, $p < .001$). Additionally, childhood abuse had a negative association with school connectedness ($\beta = -0.389$, $p < .001$), which in turn negatively associated with suicidal ideation ($\beta = -0.229$, $p < .001$) and positively related to psychological resilience ($\beta = 0.490$, $p < .001$). Higher psychological resilience was associated with lower suicidal ideation ($\beta = -0.153$, $p < .001$).

As shown in Table 3, school connectedness ($\beta = 0.089$, $P < 0.001$), school connectedness together with psychological resilience ($\beta = 0.029$, $p < .001$) partially mediated the effect of childhood abuse on suicidal ideation. The total indirect effect was 0.118 (95% CI: 0.085, 0.167), accounting for 29.6% (0.118/0.398) of total effect.

Childhood emotional abuse, physical abuse or sexual abuse was considered individually (see Appendices 2–4),

Table 2. Standardized coefficients of the final model.

Pathways	β	95% CI	p
School connectedness			
Childhood abuse	-0.389	-0.458, -0.317	<.001
Suicidal ideation			
Childhood abuse	0.280	0.187, 0.377	<.001
Psychological resilience	-0.153	-0.227, -0.072	<.001
School connectedness	-0.229	-0.330, -0.138	<.001
Psychological resilience			
School connectedness	0.490	0.426, 0.546	<.001

CI, confidence interval.

Table 3. Standardized mediation effects.

	Estimates	95% CI	p
Childhood abuse-suicidal ideation			
Total effects	0.398	0.318, 0.478	<.001
Total indirect effects	0.118	0.085, 0.167	<.001
Childhood abuse-school connectedness-suicidal ideation	0.089	0.056, 0.141	<.001
Childhood abuse-school connectedness-psychological resilience-suicidal ideation	0.029	0.014, 0.046	<.001

CI, confidence interval.

and all models had good fits. School connectedness and psychological resilience were partial mediators in the relationship between types of childhood abuse and suicidal ideation. Additionally, emotional abuse appears to have a stronger direct effect on suicidal ideation than physical abuse and sexual abuse.

4. Discussion

The current study found that childhood abuse exerted both direct and indirect effects on suicidal ideation, while psychological resilience and school connectedness acted as partial mediators. Most (70.4%) of the total association between childhood abuse and suicidal ideation was direct. Our study expands findings from the prior literature by simultaneously elucidating the mediating effects of psychological resilience and school connectedness in the association between childhood abuse and suicidal ideation among Chinese adolescents. The detrimental effect of childhood abuse on suicidal behaviours has been supported by previous research from different settings (Angelakis et al., 2020; Gong et al., 2020). A survey revealed that childhood abuse predisposed Chinese adolescents to increased risks of suicidal behaviours (Wang et al., 2020). Several prior studies have demonstrated that childhood

traumas pose a long-term and direct impact on suicidal behaviours across the lifespan (Dube et al., 2001; Lu et al., 2020). Besides, the stress-diathesis model explains that the meaning or psychological construction individuals have of stressors is also another factor which contributes to the variation of childhood abuse impacts on outcomes (McLeod, 2012), i.e. the personal appraisal of the adversity may determine the intensity of the association of the stressor to outcomes. Thus, victims of chronic childhood abuse reported an increased risk of suicidal ideation. When the types of childhood abuse were examined separately, emotional abuse had a stronger direct effect on suicidal ideation than other types. One explanation is that abusers who perpetrate physical or sexual abuse may not provide direct attributions regarding the cause of the abuse, and victims may be less prone to make negative attributions about themselves (Rose & Abramson, 1992). Similarly, Poole et al. (2017) found that individuals with emotional abuse had stronger impact on depression than sexual abuse and physical abuse.

We found that psychological resilience mediated the association between childhood abuse and suicidal ideation, which corroborates previous findings (Chen et al., 2021). For instance, a survey found that resilience partially mediated the effect of childhood maltreatment on self-harm behaviours among adolescents (Tian et al., 2021). Evidence shows that psychological resilience can be modified in interventions (Chmitorz et al., 2018). Building psychological resilience might be more beneficial to adolescents with adversities, as psychological resilience has been shown to assist adolescents in coping with stress, faster recovery from adversity, and lower susceptibility to stress-related psychopathology (Malhi et al., 2019). Likewise, school connectedness partially mediated the relationship between childhood abuse and suicidal ideation. Whitlock et al. (2014) suggested school connectedness prevented suicidal behaviours by three mechanisms; (1) intrapersonal responses and processes, including feelings of rejection and isolation; (2) collective responsibility and action supporting more avenues for risk identification; and (3) positive norms and expectations, which reinforce help-seeking behaviours and identify individuals at risk for suicide. A number of studies support the protective role of school connectedness against suicidal behaviours. A systematic review showed that the protective effects of school connectedness on suicidal ideation were identified in both general and high-risk samples (Marraccini & Brier, 2017). Therefore, as schools are ideally situated for interventions, school-based programmes that enhance adolescents' connectedness to their schools would be conducive to preventing the risks of suicide among children with an abuse history.

There are several clinical implications from this study. First, interacting risk and protective factors,

within and outside the individual, are important influencing factors of suicidal ideation. Hence, interventions should be multipronged addressing issues at the individual, family, and school levels. Second, school connectedness and psychological resilience are key intervention targets for the prevention of suicidal behaviours. Schools can increase connectedness by making learning meaningful and relevant to the lives of adolescents. Teachers should take the child's lived experience and design pedagogy into account and create clear and consistent disciplining and performance expectations. These have been shown to help abused children establish positive relationships with teachers/adults (Forster et al., 2020). Generally, prevention of childhood abuse is challenging, and screening can be complicated and contentious, particularly in conservative cultures. It is crucial to recognize how early trauma affects suicidal behaviours and to appropriately screen vulnerable adolescents.

We acknowledge the following limitations in this study. First, all adolescents were recruited from high schools in a single city and the sample was smaller, which limits the generalizability of our results. Second, all variables were self-reported; hence, the results may be susceptible to social desirability or recall bias. Third, this cross-sectional study cannot interpret the associations between variables as causal. Fourth, using a single item to measure suicidal ideation may lead to inaccuracy and misclassification (Millner et al., 2015), and dichotomizing it may lead to the loss of important, key information. Lastly, some students lived in the dormitories on weekday, but we cannot distinguish whether the practical physical distancing from a toxic home environment or school connectedness protect youth. Therefore, future studies should employ longitudinal designs using a validated measure of suicidal ideation in nationally representative samples to confirm these findings.

5. Conclusions

Childhood abuse and suicidal ideation were widespread among Chinese high school students. Chinese adolescents with higher exposures to childhood abuse were more likely to report heightened suicidal ideation, while psychological resilience and school connectedness partially mediated this association. Thus, suicide prevention strategies should consider activities that increase the connection of adolescents to the school, enhance psychological resilience and reduce childhood abuse.

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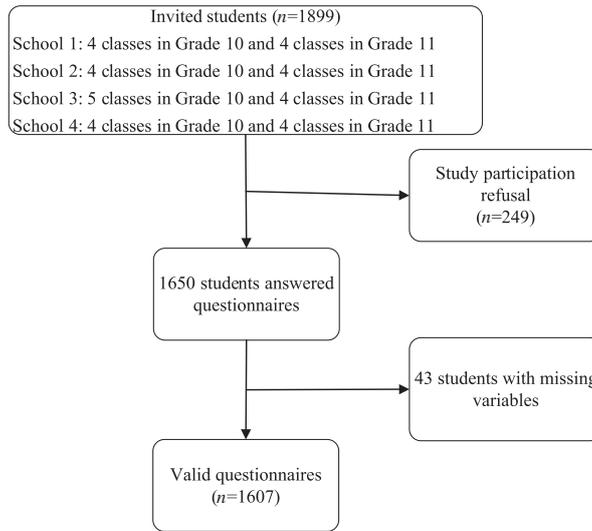
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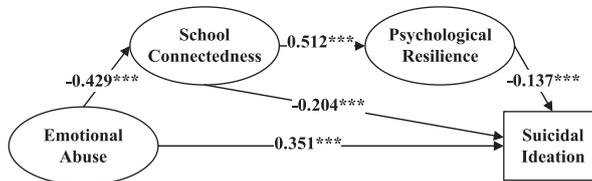
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Appendix 1. Flow diagram of the study



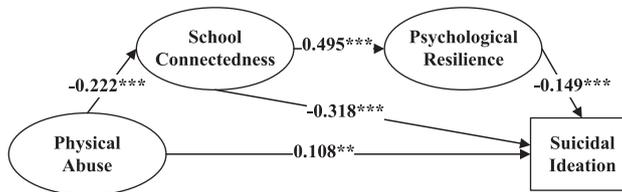
Appendix 2. The standardized coefficients of emotional abuse on suicidal ideation among Chinese adolescents, via school connectedness and psychological resilience

*** $p < .001$. The overall fit of the final model was good: CFI = 0.926, TLI = 0.915, and RMSEA = 0.045 (90% CI: 0.041–0.049). The total indirect effect was 0.118 (95% CI: 0.080, 0.173), accounting for 25.2% (0.118/0.469) of total effect.



Appendix 3. The standardized coefficients of physical abuse on suicidal ideation among Chinese adolescents, via school connectedness and psychological resilience

*** $p < .001$, ** $p < .01$. The overall fit of the final model was good: CFI = 0.970, TLI = 0.966, and RMSEA = 0.037 (90% CI: 0.033–0.041). The total indirect effect was 0.087 (95% CI: 0.049, 0.142), accounting for 44.6% (0.087/0.195) of total effect.



Appendix 4. The standardized coefficients of sexual abuse on suicidal ideation among Chinese adolescents, via school connectedness and psychological resilience

*** $p < .001$, ** $p < .01$. The overall fit of the final model was good: CFI = 0.953, TLI = 0.946, and RMSEA = 0.041 (90% CI: 0.038–0.045). The total indirect effect was 0.074 (95% CI: 0.032, 0.122), accounting for 42.8% (0.074/0.173) of total effect.

