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## Child abuse and suicidal ideation among adolescents in China\*

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### Abstract

The present study examined the relationship among physical abuse, psychological abuse, perceived family functioning and adolescent suicidal ideation in Shanghai, China. Perceived family functioning was investigated as a possible moderator between physical abuse, psychological abuse and suicidal ideation. A cross sectional survey using convenience sampling was conducted. A total of 560 valid self-administered questionnaires were completed by the students aged from 12 to 17 in Shanghai. Descriptive statistical analyses, Pearson correlations analyses, and hierarchical regression analyses were adopted as methods of data analyses. Results indicated that physical abuse was significantly associated with greater adolescent suicidal ideation, while a higher level of perceived family functioning was significantly associated with lower suicidal ideation. However, psychological abuse was not associated with suicidal ideation. Perceived family functioning was shown to be a moderator between physical abuse and suicidal ideation. Specifically, mutuality and family

communication moderated the relationship between physical abuse and suicidal ideation. To decrease adolescent suicidal ideation, measures are suggested to prevent physical abuse and enhance family functioning. First, it is important to increase the parents' awareness of the meaning and boundaries of physical abuse, as well as the role it plays in contributing to adolescent suicidal ideation. Second, parents should be taught appropriate parenting skills and knowledge and be guided to treat the children as individuals with their unique personality, rights and privileges. Third, it is important to promote family harmony, effective communication as well as mutual trust, concern and understanding among family members.

**Keywords:** Physical abuse; Psychological abuse; Family functioning; Suicidal ideation; Chinese; Adolescents

## **Introduction**

China is a country with one of the highest suicide rates in the world with 23 per 100,000, or 287,000 people killing themselves each year (Phillips, Li, & Zhang, 2002). Suicide is also the fifth leading cause of death in China and is the leading cause of death among young Chinese adults aged between 15 and 34 (Phillips et al., 2002). Suicidal ideation is an important predictor of suicide. According to one study on the lifetime prevalence of suicidal ideation, suicidal plans and suicide attempts among 5,201 people in Beijing and Shanghai, 3.1% reported suicidal ideation, and 1.0% reported suicide attempts (Lee et al., 2007). Among those who had suicidal ideation, 29.5% had made a plan, and 32.3% attempted suicide. Existing studies have identified different personal and family risk factors and predictors of suicidal ideation among Chinese adolescents.

Child abuse has been a severe phenomenon in Chinese society. The China Law Society conducted a national survey of 3,543 people. Up to 71.9% of the interviewees reported they had been beaten by their parents once or more in their lives (Liu & Zhang, 2002). Another survey of 300 primary school students in Xi'an city showed that 60.14% of students experienced being beaten, scolded, or forced to stand at the corner as punishment, or being deprived of food or rest by their parents. Many cases of child abuse occurred in unstable or dysfunctional families, such as families with a single parent, families of the mobile population, families with violent members, or families with members having personality disorders (Yang & Feng, 2011; Sunday et al., 2008). Prior studies also showed that child abuse was highly related to suicidal ideation and attempts among adolescents (Baldry & Winkel, 2003; Sfoggia, Pacheco, & Grassi-Oliveira, 2008). Poor family functioning was found to be positively associated with suicidal ideation (Spirito, Valeri, Boergers, & Donaldson, 2003). Based on the above data and general trends, an understanding of the

relationship between child abuse, family functioning, and suicidal ideation among Chinese adolescents can help in developing better suicide prevention measures.

### *Child abuse and suicidal ideation*

Previous studies have reported that child abuse was associated with suicidal ideation. Specifically, physical abuse, a major form of child abuse, was identified to be a strong predictor of suicidal ideation and attempts. Physical abuse includes mild to severe physical maltreatment, but excludes corporal punishment that is regarded as expected responses of parents to persistent child misbehavior (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). A number of studies have identified the high association between child physical abuse and suicidal ideation in adulthood (Afifi, Boman, Fleisher, & Sareen, 2009; Calder, McVean, & Yang, 2010; Hardt, Dragan, Schultz, & Schier, 2011). Furthermore, some Western studies specifically identified that childhood physical abuse was a strong predictor of adolescent suicidal ideation (Duke, Pettingell, McMorris, & Borowsky, 2010; Nilsen & Conner, 2002; Salzinger, Rosario, Feldman, & Ng-Mak, 2007; Thompson et al., 2012).

Prior studies likewise identified childhood psychological abuse, another major form of child abuse, as a predictor of suicidal ideation. Psychological abuse was defined as the verbal and symbolic acts used by the parent to cause psychological pain or fear on the part of the child (Straus et al., 1998). Psychological abuse was shown to be associated with adolescent and adult suicidal ideation and attempts (Enns et al., 2006; Locke & Newcomb, 2005). A specific form of child psychological abuse, maternal verbal assault involving verbal threats and hostility, was identified to be associated with increased risk for suicide attempts during late adolescence (Johnson et al., 2002). Parental criticism with critical or sarcastic comments was found to be strongly associated with adolescent suicidal ideation, plans, and attempts (Wedig

& Nock, 2007). However, Ystgaard, Hestetun, Loeb, and Mehlum (2004) found that parent antipathy to their children was not associated with the later suicidal behavior in their offspring. The results of previous studies are equivocal. Hence, further research needs to be conducted.

### *Perceived family functioning and suicidal ideation*

Family functioning refers to the quality of family life at the systemic level, and is related to parental concern, family communication, harmony, and mutuality (Shek, 2002). Previous studies showed that family functioning was a significant predictor of suicidal ideation. Poor family functioning was highly related to adolescent suicidal ideation both in population-based and clinical samples (Algorta et al., 2011; Maras, Dukic, Markovic, & Biro, 2011). Family cohesion (Donnell, Donnell, Wardlaw, & Stueve, 2004; Eshun, 2003) and family support (Harris & Molock, 2000; Perkins & Hartless, 2002) were found to be significant negative predictors of suicidal ideation in both adults and adolescents. A high level of perceived family functioning was found to be a significant negative predictor of suicidal ideation, whereas family conflict and negative family climate were significant positive predictors of suicidal ideation in a community sample of Hong Kong adolescents (Kwok & Shek, 2011; Lee, Wong, Chow, & Chang, 2006; Sun, 2005). However, previous studies mainly focused on a single aspect of family functioning such as family cohesion, family conflict, or family climate. Some studies even used a single item to measure the variable of family functioning. Hence, a more comprehensive and locally developed measure of family functioning is needed to obtain a clearer picture of the relationship between perceived family functioning and suicidal ideation.

*Perceived family functioning as a moderator between child abuse and suicidal ideation*

Although child abuse may escalate suicidal ideation, the picture may be different in families with perceived healthy functioning. Previous findings suggest that perceived family functioning may moderate the relationship between child abuse and suicidal ideation. Family cohesion was found to buffer the negative impacts of life stress and protect adolescents from developing suicidal behaviors (Rubenstein, Halton, Kasten, Rubin, & Stechler, 1998). It was also shown that family functioning moderated the relationship between hopelessness and suicidal ideation, between social problem solving and suicidal ideation among Chinese adolescents in Hong Kong (Kwok & Shek, 2008, 2009). However, moderating effect of family functioning was not found between parenting style and child social competence (Xu, 2008), and between life stress and quality of life in adolescents with a mobility disability (Alriksson-Schmidt, Wallander, & Biasini, 2007). Hence, the moderating role of perceived family functioning on suicidal ideation remains to be explored.

Chinese culture is characterized by familism, and the family, rather than the individual, is the “basic structural and functional unit” (Yang, 1995). Influenced by Confucian ethics, Chinese culture puts a high value on filial piety (xiaodao). A Chinese saying states that “Filial piety is the foundation of all virtues.” The parents are regarded as household heads (jiazhang) with the power and authority to govern and discipline their children. Authoritarian parenting is typical in a Chinese family. The parents believe that “Severe beating is caring and scolding is loving” (Qiao & Chan, 2005). Chinese parents tend to use physical and emotional punishment to solve parent–child problems and conflicts, which may easily lead to child abuse (Qiao & Chan, 2008). However, a study on parents’ attitudes toward child abuse in Beijing showed that most parents did not regard child battering by biological parents as child abuse, and many children had similar views and agreed that they must accept their parents’

discipline due to filial piety (Qiao, 2007). Hence, the association between child abuse and adolescent suicidal ideation in Chinese societies may not be as strong as that in the Western societies. Further exploration in this area is needed.

Furthermore, in the past three decades, China experienced rapid modernization and industrialization. The Chinese traditional stable big family structure has been gradually substituted with the nuclear family structure. The great social change, such as the elevated ratio of divorce and the migrant population, created unstable and dysfunctional families (Liu, Sun, & Zhang, 2006; Yang, 2010), and those factors were found to be associated with adolescent suicidal ideation. It is thus worth studying how child abuse and perceived low family functioning interact to predict suicidal ideation in a Chinese society that heavily emphasizes the harmony, solidarity, and cohesion of the family (Rosenthal & Feldman, 1996; Yang, 1995). Thus, the present study aims to examine the relationship among child abuse, perceived family functioning, and adolescent suicidal ideation.

### *Research questions and hypotheses*

Based on the previous literature, two research questions and five hypotheses are formulated. The research questions are as follows: (1) What is the relationship between physical abuse, psychological abuse, family functioning, and adolescent suicidal ideation? and (2) What is the role played by family functioning in the relationship between physical abuse, psychological abuse and adolescent suicidal ideation? Based on the research questions, the following research hypotheses are formulated:

H1. A higher level of physical abuse is significantly associated with greater suicidal ideation.

H2. A higher level of psychological abuse is significantly associated with greater suicidal ideation.



H3. A high level of perceived family functioning is significantly associated with lower suicidal ideation.

H4. Perceived family functioning is a significant moderator between physical abuse and suicide ideation.

H5. Perceived family functioning is a significant moderator between psychological abuse and suicide ideation.

## **Methods**

### *Procedure and participants*

A cross-sectional survey using convenience sampling was conducted. The study was approved by the City University Research Ethics Committee. Consent was obtained from the principals of three government-run schools in Shanghai, China. A total of 590 questionnaires were completed by students ranging from pre-secondary to junior secondary school year three (Grades 6–9). Among the returned questionnaires, 560 questionnaires were regarded as valid. The purpose of the study was clearly explained to the parents, the students in class, and in the consent forms. Two aspects were stressed: participation was completely voluntary, and non-participation would have no effect on grades. Consent forms were signed by both the students and their parents. The questionnaires were anonymous; hence, individual participants could not be identified. A teacher and two research assistants were present to explain the objectives and confidentiality of the study, and answer queries raised by the participants. The entire administrative process took around 60 min to complete. The teachers in the schools would follow up issues arising from the completion of the questionnaires and the administration of the survey.

Among 560 participants, 52.8% were male and 47.2% were female. Their mean age was 14 years. Most (83.7%) were born in the cities in mainland China other than Shanghai, with the remaining 16.3% born in Shanghai. Only 18.9% of the participants had religious beliefs. They had an average of 1.1 siblings. Most of the participants' parents (84.1%) were married. About one-third (30.4%) had a total annual family income below 10,000 RMB (US\$ 1,570), whereas 51.8% had family incomes ranging from 10,000 RMB to 69,990 RMB (US\$ 1,570–11,010). The average annual family income in Shanghai is 36,000 RMB (US\$ 5,660). With regard to the fathers' education, 3.4% did not receive any education, 30.5% had primary

school education, 62.0% received junior to senior secondary school education. About one-tenth (10.0%) of mothers did not receive any education, 45.3% had primary school education, and 41.6% received junior to senior secondary school education (Table 1).

**Table 1**  
Sample demographics ( $N = 560$ ).

Demographics	Breakdown	%
Child's gender	Male	52.8
	Female	47.2
Child's age	12	11.7
	13	25.9
	14	27.8
	15	20.9
	16	12.8
	17	.9
Child's study year	Pre-secondary	11.6
	Junior secondary school year 1	37.8
	Junior secondary school year 2	39.8
	Junior secondary school year 3	10.8
Child's birth place	Shanghai	16.3
	City other than Shanghai	83.7
Child with religious belief	Yes	18.9
	No	81.1
Number of siblings	0	24.3
	1	51.3
	2	18.2
	3	3.4
	4 or more	2.7
Parents' marital status	Married	84.1
	Re-married	3.1
	Divorced	2.0
	Separated	2.0
	Living together	8.8
Annual family income	Below 10k RMB (below US\$ 1.57k)	30.4
	10k to 69.99k RMB (US\$ 1.57k to 11.01k)	51.8
	70k to 129.99k RMB (US\$ 11.01k to 20.42k)	11.5
	130k to 189.99k RMB (US\$ 20.42k to 29.84k)	3.8
	190k RMB or above (US\$ 29.84k or above)	1.9
Fathers' educational background	No education received	3.4
	Primary school	30.5
	Junior secondary school	50.0
	Senior secondary school	12.0
	Technical secondary school Bachelor degree or above	2.5 1.6
Mothers' educational background	No education received	10.0
	Primary school	45.3
	Junior secondary school	36.0
	Senior secondary school	5.6
	Technical secondary school Bachelor degree or above	2.3 .7

### Measures

Physical abuse and psychological abuse. Children's perceived physical abuse and psychological abuse were measured by two subscales of the Chinese version of the Parent-Child Conflict Tactics Scale (CTSPC; Chan, 2011) originally developed by Straus et al. (1998). There are 22 items in the original scale, which is divided into three subscales, namely

Non-violent Discipline, Psychological Aggression, and Physical Assault. Only the subscales of Psychological Aggression and Physical Assault (a total of 18 items) were used in the present study. Psychological Aggression is used to measure psychological abuse that includes aggressive verbal behaviors of the parents such as “shouting, yelling, or screaming at the child”. Physical Assault, that measures different severity of physical abuse, involves (1) mild corporal punishment for which parents are granted an exemption from prosecution, e.g., “hitting the child on the bottom with a belt, a hairbrush, a stick, or any hard object”; (2) physical maltreatment such as “hitting the child with a fist or kicking him/her hard”; and (3) severe physical maltreatment such as “grabbing the child around the neck and choking him/her.” Participants were asked to indicate on a seven-point scale the frequency of a particular behavior done by their parents in the past year (with 0 = this has never happened, 1 = once in the past year, 2 = twice in the past year, 3 = 3–5 times in the past year, 4 = 6–10 times in the past year, 5 = 11–20 times in the past year, 6 = more than 20 times in the past year). A higher average score indicates greater abuse. The psychometric characteristics of the CTSPC, including its reliability and discriminant and construct validity, have been well documented (Straus et al., 1998). The Chinese version of the CTSPC has also been validated and demonstrated to have satisfactory reliability for Psychological Aggression ( $\alpha = .76$ ) and Physical Assault ( $\alpha = .77$ ) (Chan, 2011). The internal reliability of the Physical Assault and Psychological Aggression subscales in this study was good and acceptable ( $\alpha = .88$  and  $.68$ , respectively).

*Perceived family functioning.* Perceived family functioning was assessed using the Chinese Family Assessment Instrument (C-FAI), which is one of the first indigenous instruments designed to measure the functioning of Chinese families (Shek, 2002). For each question, respondents were required to choose an answer from a five-point Likert scale, ranging from 1

= strongly disagree to 5 = strongly agree. The four subscales are mutuality (e.g., family members accommodate each other), family communication (e.g., family members enjoy interacting with one another), family conflict (e.g., much friction exists among family members), and parental concern (e.g., parents are not concerned about their children). A higher score indicates a higher level of family functioning. A series of large-sample validation studies were conducted with local secondary school students (Siu & Shek, 2005), which revealed a moderate correlation between the C-FAI and parent-adolescent conflict as measured by the Conflict Behavior Questionnaire (Robin & Foster, 1989). Reliability analyses showed that the scale had a very high reliability in the current study ( $\alpha = .96$ ).

*Suicidal ideation.* Suicidal ideation was assessed using the Suicidal Ideation Subscale (C-SIS) of the Suicidal Risk Scale for Hong Kong students developed locally by Tse and Bagley (2002). The instrument is used as a screening tool to identify high-risk students so that effective intervention can be implemented. The instrument is also used to assess suicidal risk during the intervention phase, and evaluate the effectiveness of intervention and treatment programs. The C-SIS contains 13 items (e.g., “I really want to put an end to all this so that I don’t have to continue to bear the pain,” and “I think being dead may be better than what I am experiencing now”). For each item, respondents were required to choose an answer from a four-point Likert scale ranging from 1 = strongly disagree to 4 = strongly agree. A higher score indicates a higher level of suicidal ideation. Previous findings based on a validation study with Hong Kong secondary school students (Tse & Bagley, 2002) showed that the C-SIS had high internal consistency ( $\alpha = .92$ ), split-half consistency ( $\alpha = .88$ ), and test-retest reliability ( $r = .72$ ). The C-SIS displayed significant relationships with other related measures such as the Suicide Behavior Questionnaire (Linehan, 1981). The C-SIS scores were also able

to differentiate suicidal students from non-suicidal students, with a significant t-value ( $p < .001$ ). The scale was found to be internally consistent in this study ( $\alpha = .84$ ).

*Demographics.* Demographic variables (i.e., gender, age, years of study, number of siblings, annual family income, and educational level of parents) were incorporated as covariates in the hierarchical regression analyses of this study.

#### *Data analyses*

The means, standard deviations, and Cronbach's alphas were computed. Pearson correlation analyses were then conducted to investigate the relationship between the proposed variables, and determine the existence of any multicollinearity problem. In the hierarchical regression analyses, demographic variables such as gender, age, year of study, number of siblings, annual family income, and educational level of parents were entered in the first block. Variables including physical abuse and psychological abuse were entered in the second block to examine its predictive power, whereas the moderating variables, subscales of perceived family functioning, were entered in the subsequent block.

There were altogether eight moderating models to be tested, i.e., physical abuse with mutuality, communication, conflict, and parental concern, as well as psychological abuse with mutuality, communication, conflict, and parental concern, respectively. The interaction terms of physical abuse and psychological abuse with each moderating variable were entered in the fourth block. The interaction terms were computed by multiplying the centered physical abuse and psychological abuse score with different centered family functioning subscale scores, namely, mutuality, communication, conflict, and parental concern respectively. Significant interactions were analyzed using simple slopes analysis as stated by Aiken and

West (1991). PROCESS command (Hayes, 2013) on SPSS was used to examine the moderating effect at low and high levels of the moderators, where the low and high levels were determined as one standard deviation above and below the mean value of the moderator. Separate regression lines were computed and plotted for different levels of moderator with different levels of predictor (one standard deviation above and below the mean) to better understand the significance pattern.

## Results

As shown in Table 2, physical abuse was found to be significantly and negatively correlated with perceived family functioning,  $r(560) = -.35, p < .001$ . A higher level of perceived family functioning showed a significant correlation with lower suicidal ideation,  $r(560) = -.47, p < .001$ . A higher level of physical abuse was significantly correlated with greater suicidal ideation,  $r(560) = .22, p < .001$ . Analyses showed that the level of multicollinearity within different variables was acceptable in the current study, with all variation inflation factors (VIFs) below 10.

**Table 2**  
Pearson correlations among different variables ( $N=560$ ).

	Suicidal ideation	Physical abuse	Psychological abuse	Family functioning
Suicidal ideation	–	.22***	.20***	-.47***
Physical abuse		–	.68***	-.35***
Psychological abuse			–	-.36***
Family functioning				–
Mean	1.69	1.06	2.05	3.95
SD	.64	2.48	3.60	.68
$\alpha$	.91	.88	.68	.93

\*\*\*  $p < .001$  (2-tailed).

The moderating effect was analyzed in the hierarchical regression analyses in Table 3. Demographics including age, sex, study year, number of siblings, annual family income, and educational level of fathers and mothers were controlled in Step 1, and were found to be insignificantly associated with suicidal ideation. With physical abuse and psychological abuse placed in Step 2, physical abuse was shown to be significantly and positively correlated with suicidal ideation,  $\beta = .16, t = 2.68, p < .01$ , whereas psychological abuse was not,  $\beta = .08, t = 1.44, ns$ . In Step 3, family conflict was significantly correlated with greater suicidal ideation,  $\beta = .29, t = -5.90, p < .001$ , while parental concern was significantly correlated with lower suicidal ideation,  $\beta = -.14, t = -3.01, p < .01$ , but mutuality and communication were not. These two steps accounted for an additional 23% of the variance in suicidal ideation. In Step 4, only the interaction term physical abuse  $\times$  mutuality was significant in Model 1,  $\beta = .10, t = 2.20, p < .05$ , while physical abuse  $\times$  communication was significant in Model 2,  $\beta = .17, t =$



3.61,  $p < .001$ , suggesting that mutuality and communication were moderating variables between physical abuse and suicidal ideation. All the interaction terms in other models were non-significant. Further moderation analyses using PROCESS were done to examine the moderating effect at low and high levels of the moderators, with demographics and physical and psychological abuse controlled. The result showed that there was a stronger association between physical abuse and adolescent suicidal ideation in families with high mutuality,  $\beta = .07$ ,  $t = 2.51$ ,  $p < .05$  and high family communication,  $\beta = .09$ ,  $t = 3.59$ ,  $p < .01$ , than with low mutuality,  $\beta = .02$ ,  $t = 1.24$ ,  $p = .22$ , and low family communication,  $\beta = .02$ ,  $t = 1.48$ ,  $p = .14$ . Adolescents in families with high mutuality have significantly lower suicidal ideation than those in families with low mutuality for both high and low levels of physical abuse (Fig. 1). Similarly, adolescents in families with high family communication have significantly lower suicidal ideation than those in families with low family communication for both high and low levels of physical abuse (Fig. 2). These two regression models accounted for 25% and 26% of the total variance in suicidal ideation respectively.

**Table 3**  
Hierarchical regression analyses predicting adolescent suicidal ideation ( $N = 560$ ).

Step	Predictors	Model 1 <sup>b</sup>	Model 2 <sup>b</sup>	Model 3 <sup>b</sup>	Model 4 <sup>b</sup>
1	Gender	-.08	-.08	-.08	-.08
	Age	-.01	-.01	-.01	-.01
	Study year	.01	.01	.01	.01
	Number of siblings	.02	.02	.02	.02
	Annual family income	-.02	-.02	-.02	-.02
	Educational level of father	.01	.01	.01	.01
	Educational level of mother	-.05	-.05	-.05	-.05
	$R^2$	.01	.01	.01	.01
2	Physical abuse	.16**	.16**	.16**	.16**
	Psychological abuse <sup>c</sup>	.08	.08	.08	.08
	$R^2$	.05***	.05***	.05***	.05***
3	MUT <sup>a</sup>	-.02	-.02	-.02	-.02
	COMM <sup>a</sup>	-.13	-.13	-.13	-.13
	CONFLICT <sup>a</sup>	.29***	.29***	.29***	.29***
	CONCERN <sup>a</sup>	-.14**	-.14**	-.14**	-.14**
	$R^2$	.18***	.18***	.18***	.18***
4	Physical abuse × MUT	.10*			
	Physical abuse × COMM		.17***		
	Physical abuse × CONFLICT			-.00	
	Physical abuse × CONCERN				.00
	$R^2$	.01***	.02***	.00***	.00***

<sup>a</sup> MUT, mutuality; COMM, family communication; CONFLICT, family conflict; CONCERN, parental concern.

<sup>b</sup> Four different interaction terms were entered in the four models predicting suicidal ideation: Model 1 = physical abuse × MUT; Model 2 = physical abuse × COMM; Model 3 = physical abuse × CONFLICT; Model 4 = physical abuse × CONCERN.

<sup>c</sup> Interaction between psychological abuse and family functioning subscales were not presented as they were found to be non-significant.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

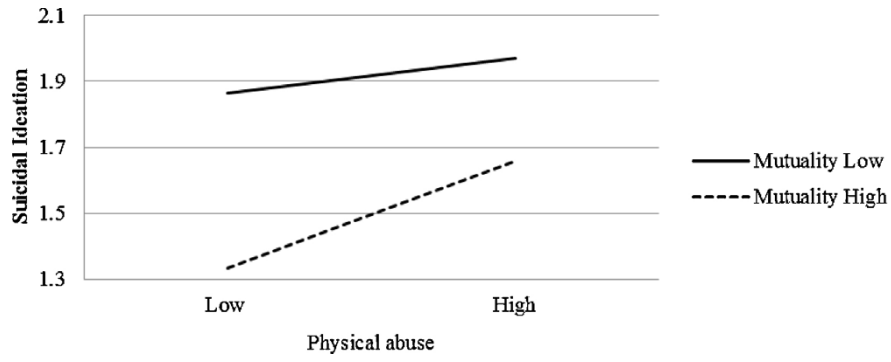


Fig. 1. Interaction between physical abuse and mutuality on adolescent suicidal ideation.

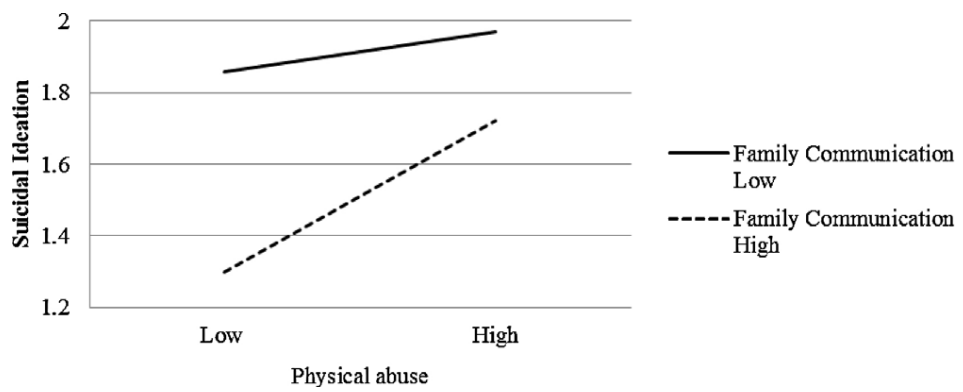


Fig. 2. Interaction between physical abuse and family communication on adolescent suicidal ideation.

## **Discussion**

### *Physical abuse and suicidal ideation*

Regression analysis supported Hypothesis 1, indicating that physical abuse was significantly and positively associated with suicidal ideation among Chinese adolescents. This result coincides with previous findings on physical abuse and suicidal ideation (Duke et al., 2010; Nilsen & Conner, 2002; Salzinger et al., 2007; Thompson et al., 2012).

Adolescence is a vulnerable period in life. Many important concepts on the world, self-identity, and the meaning of life are formed during this period. Physical abuse, especially severe beatings by parents, is detrimental not only to adolescents' physical development, but most importantly, to their psychological development as well. They experience both physical and psychological pain. A study showed that recent physical abuse could increase adolescents' psychological distress, which could further lead to suicidal ideation (Thompson et al., 2012). Physical abuse might also lead to adolescents' depression or hopelessness, which was significant risk factor for suicidal ideation (Rummell & Hansen, 1993).

Chinese adolescents experiencing physical abuse by their parents might feel more helpless than their Western counterparts, and therefore might be more prone to having suicidal thoughts. One major reason is that traditional Chinese culture, to a certain extent, supports authoritarian parenting and even the physical punishment of children by their parents.

Physical abuse is regarded as a way to "educate and discipline" that children cannot object or resist (Qiao, 2007). In addition, there is a lack of legal or social protective system for abused children in China. Many Chinese regard their children as their private property, and decline outside intervention (Qiao & Chan, 2005). This situation adds to adolescents' feelings of helplessness, depression, and could give rise to suicidal thoughts (Chen, 2005). Hence,

adolescents being physically abused by their parents may feel hopeless, miserable, and stressed out, which may lead to suicidal ideation.

### *Psychological abuse and suicidal ideation*

The findings of this study did not support Hypothesis 2, that psychological abuse was not significantly correlated with adolescent suicidal ideation. This result was inconsistent with that of previous studies on psychological abuse and suicidal ideation, although the results of some of the studies were controversial. In the present study, psychological abuse includes verbal criticism and shaming, e.g., “called him/her dumb or lazy or some other name”; warning of punishment, e.g., “threatened to spank or hit him/her but did not actually do it”; scolding, e.g., “swore or cursed at him/her”; and threats of abandonment, e.g., “said you would send him/her away or kick him/her out of the house”.

In Chinese societies, shaming is a strategy to teach children right from wrong and raise competent and moral children (Olsen et al., 2002). It is used to enhance children’s adherence to societal norms, increase their interpersonal sensitivity and social responsibility, thus protecting them being condemned by people outside the family (Fung, 1999; Fung & Lau, 2009). Children perceive parental psychological abuse as normal and acceptable, and do not treat it as parental rejection or negativity (Rudy & Grusec, 2006). They were socialized to regard that their parents’ scolding and verbal criticism originated from their care and concern, and were ways to guide them for optimal development (Fung & Lau, 2009).

Previous studies have shown that parental verbal assault, a form of psychological abuse, was not associated with elevated levels of maladaptive child behaviors or dysfunctional mental health outcomes in Chinese societies (Rudy & Grusec, 2006; Rudy & Halgunseth, 2005).

Hence, adolescent psychological functioning would not be affected by psychological abuse. Psychological abuse was thus not a predictor of adolescent suicidal ideation.

#### *Perceived family functioning and suicidal ideation*

The results of this study supported Hypothesis 3, which showed that a higher level of perceived family functioning was significantly associated with lower suicidal ideation. This result is in line with the findings of previous studies (e.g., Algorta et al., 2011; Maras et al., 2011). Poor family functioning significantly increases adolescents' suicidal ideation (e.g., Spirito et al., 2003). Problematic communication, high conflict, low harmony, high control and low concern in the family might make adolescents feel unsupported and alienated from their family, which was one of their most valued social groups. Such feelings could lead to suicidal ideation.

Specifically, parental concern was shown to be significantly and negatively associated with suicidal ideation in this study. Previous studies have shown that parental concern was positively related to the psychological adjustment and well-being of adolescents (Shek, 2004). Parental concern and support help make adolescents feel worthwhile and important, increasing their motivation to strive better and enabling them to have a reason to live. On the other hand, lack of parental concern and support were found to be linked with different psychological problems, such as depression and suicidal behavior (Dukes & Lorch, 1989). Being neglected and unloved is particularly detrimental to Chinese adolescents due to their collectivistic and familistic orientation (Shek, 2004).

Similar to previous studies, family conflict was found to be significantly and positively associated with suicidal ideation (Lee et al., 2006; Liu, Sun, & Yang, 2008). Living in

families with high levels of conflict was particularly detrimental to Chinese adolescents because they were supposed to play important roles to maintain a stable and harmonious family. This might result in adolescents' internalization of the conflict by mistakenly regarding themselves as the source of the conflict, which would ultimately lead to feelings of guilt, alienation, and worthlessness (Sands & Dixon, 1986). Suicidal thoughts would therefore develop as a way to escape from these irresolvable emotional pains. In addition, Chinese culture heavily emphasizes the unity and harmony of the family (Yang, 1995). Chinese families also encourage conformity and absolute obedience of the children, as well as the suppression of feelings and affection (Xia et al., 2005). Overt family conflicts were to be avoided as far as possible. Hence, conflicting family relationships would increase adolescents' psychological distress (Greenberger, Chen, & Tally, 2000) and contribute to their suicidal ideation (Zhang, 2011).

As the present study is a cross-sectional survey, the findings should be interpreted with caution. It may be that adolescents having suicidal ideation will perceive low family functioning and will more easily trigger physical abuse from their parents. A longitudinal design is suggested to better delineate the causal relationship between the studied variables.

Furthermore, the findings of the present study supported Hypothesis 4, demonstrating that perceived family functioning was a significant moderator between physical abuse and suicidal ideation. However, perceived family functioning did not buffer the relationship between psychological abuse and suicidal ideation, thus not supporting Hypothesis 5. Specifically, two subscales of family functioning, mutuality and family communication, moderated the relationship between physical abuse and suicidal ideation.

In the present study, mutuality encompasses filial piety, family support, mutual trust, understanding and accommodation among family members. Previous literature has shown that family support buffered the effects of stressful events on adolescent suicidality (Cheng & Chan, 2007) as well as moderated the relationship between child maltreatment and adolescent physical health (Wong et al., 2009). Support from the family helped offset the negative effects of physical abuse and alleviate the risk of suicidal ideation. Mutual trust, understanding and accommodation also increased adolescents' engagement, sense of belonging, and decrease their feeling of isolation in the family (Riesch, Jacobson, Sawdey, Anderson, & Henriques, 2008). This will help adolescents cope with stressful situations, facilitate their adaptation, strengthen their emotional resilience and make them feel empowered (Rhodes, Contreras, & Mangelsdorf, 1994). Hence, their suicidal ideation will decrease. It was also found that filial piety moderated the impact of childhood maltreatment experiences on adolescent depression (Ng, Bhugra, McManus, & Fennell, 2011). Adolescents with high filial piety may regard physical abuse as parents' good intentions in coaching them to behave and be strong so that they can grow up as successful people and make a contribution to society (Ng et al., 2011). Hence, mutuality that incorporates family support and filial piety decreases adolescent suicidal ideation in face of physical abuse.

In addition, family communication was shown to moderate the relation between physical abuse and suicidal ideation. Some previous studies have shown that parent-child communication moderate the effects of family stressors on children's attachment security and adolescents' internalizing symptoms (Kim & Park, 2011; Rangarajan, 2008). Family communication gives the adolescents a chance to share their problems and ventilate their emotions. It is important that they have other family members to talk to even though they are physically abused by their parents. Family communication includes taking part in family

activities together. This gives adolescents a sense of family inclusion and involvement, thus decreasing the risk of suicidal ideation. A previous study also indicates that open communication and engagement in family activities protect adolescents against self-harm behaviors (Byrne et al., 2008).

### **Implications and limitations**

Practically speaking, measures can be taken to prevent the occurrence of physical abuse in families to prevent adolescent suicidal ideation. First, a significant number of families in China have low awareness of the meaning and boundaries of physical abuse, and many Chinese parents do not regard the physical punishment of their children as physical abuse. Thus, helping these parents understand the meaning of physical abuse and the role it might play in the development of suicidal ideation among adolescents is necessary. Second, considering that many parents in China regard their children as private property that deserve any kind of treatment, parents should be guided to realize that each child needs to be treated as an individual with a unique personality, and with their own rights and privileges. Third, parents should be taught effective parenting knowledge, skills, and attitudes so that they could use appropriate methods to discipline their children instead of resorting to physical punishment.

The findings highlighted the important moderating role of family functioning in preventing suicidal ideation. Therefore, it is important to enhance family harmony, effective communication as well as mutual concern, understanding and support. The Triple-P Positive Parenting Program, which was shown to be an effective program to promote harmonious relationships among Chinese families in Hong Kong, could be organized for the parents in mainland China as well (Leung, Sanders, Leung, Mak, & Lau, 2003). In addition, the family-



based intervention and multi-systemic therapy approach proposed by Borowsky, Ireland, and Resnick (2001) can be adopted to enhance family relationships and cohesion.

Because this study highlighted that physical abuse and perceived family functioning were significantly associated with adolescent suicidal ideation, they can be included as important building blocks in the theoretical formulation of suicidal ideation. However, as the study adopted convenience sampling from the secondary school students in Shanghai and Shanghai is an urban city, the findings cannot be generalized to the broader secondary school population or the rural areas in China. One additional limitation of this study is that self-administered questionnaires were used to collect the adolescents' retrospective responses. The validity of the response was questionable because the adolescents might not have given honest responses to the questions due to the influence of social desirability. A further study with multiple informants, such as the adolescents' parents and other family members, and multiple methods of data collection, such as in-depth interviews and home observation, may yield more comprehensive and accurate results. Despite these limitations, the current study underscores the moderating role of perceived family functioning on the relationship between physical abuse and suicidal ideation, contributing to the prevention of adolescent suicidal ideation.

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