



Title	Child Victims and Poly-victims in China: Are They More At-Risk of Family Violence?
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Citation	Child Abuse & Neglect, 2014, v. 38 n. 11, p. 1832-1839
Issued Date	2014
URL	http://hdl.handle.net/10722/200872
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Elsevier Editorial System(tm) for Child Abuse & Neglect
Manuscript Draft

Manuscript Number: CHIABUNEG-D-14-00061R1

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Article Type: Full Length Article

Keywords: Child Victimization; Poly-victimization; Intimate Partner Violence; Elder Abuse; Family Violence

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Abstract: Multiple forms of violence may co-occur on a child. These may include various forms of child victimization as well as different types of family violence. However, evidence supporting that child victims are more likely to witness other types of family violence has been lacking in China. Using data of a large and diverse sample of children recruited from 6 regions in China during 2009 and 2010 (N = 18,341; 47% girls; mean age = 15.9 years), the associations between child victimization and family violence witnessed were examined. Descriptive statistics and the associations between child victimization, demographic characteristics, and family violence witnessed were analyzed. Lifetime and preceding-year rates were 71.7% and 60.0% for any form of child victimization, and 14.0% and 9.2% for poly-victimization, which was defined as having four or more types of victimization, respectively. Family disadvantages including lower socio-economic status, single parents, and having more than one child in the family were associated with child victimization and poly-victimization. Witnessing of parental intimate partner violence (IPV), elder abuse and in-law conflict also increased the likelihood of child victimization and poly-victimization, even after the adjustment of demographic factors. Possible mechanisms for the links between family violence and child victimization are discussed. The current findings indicated the need of focusing on the whole family rather than the victim only. For example, screening for different types of family violence when child victims are identified may help early detection of other victims within the family.

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Acknowledgement

The Optimus Study was initiated and funded by the UBS Optimus Foundation.

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Abstract

Multiple forms of violence may co-occur on a child. These may include various forms of child victimization as well as different types of family violence. However, evidence supporting that child victims are more likely to witness other types of family violence has been lacking in China. Using data of a large and diverse sample of children recruited from 6 regions in China during 2009 and 2010 ($N = 18,341$; 47% girls; mean age = 15.9 years), the associations between child victimization and family violence witnessed were examined. Descriptive statistics and the associations between child victimization, demographic characteristics, and family violence witnessed were analyzed. Lifetime and preceding-year rates were 71.7% and 60.0% for any form of child victimization, and 14.0% and 9.2% for poly-victimization, which was defined as having four or more types of victimization, respectively. Family disadvantages including lower socio-economic status, single parents, and having more than one child in the family were associated with child victimization and poly-victimization. Witnessing of parental intimate partner violence (IPV), elder abuse and in-law conflict also increased the likelihood of child victimization and poly-victimization, even after the adjustment of demographic factors. Possible mechanisms for the links between family violence and child victimization are discussed. The current findings indicated the need of focusing on the whole family rather than the victim only. For example, screening for different types of family violence when child victims are identified may help early detection of other victims within the family.

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Introduction

Child victimization, which is children's experience of being victimized by various forms of violence including but not limited to child maltreatment by parents, violence by peer and siblings, neighbourhood crime as well as the exposure to indirect violence against others, is a prevalent problem that has been attracting more and more attention worldwide. The World Report on Violence against Children issued by the Secretary-General of the United Nations provides a comprehensive review of the various kinds of injuries sustained by children and calls for governments to take action (Pinheiro, 2006).

Surveys in Western countries have revealed preceding-year prevalence of child victimization ranging from 24% to 70% (e.g. Finkelhor, Ormrod, & Turner, 2007; Finkelhor, Turner, Ormrod, & Hamby, 2010; Millard & John, 2010). As to multiple forms of child victimization, Finkelhor et al. (2007) estimated that one in every five children were victims of more than four types of violence (poly-victimization). Past research has revealed the prevalence of specific types of child victimization, such as 3% to 62% for physical abuse (Lau, Liu, Cheung, & Wong, 1999; Tang & Davis, 1996), 2% to 36% for neglect (Chan, 2011; Hong Kong Medical Coordinators on Child Abuse, 2003), and 21% to 68% for school bullying (Hazemba, Siziya, Muula, & Rudatsikira, 2008; Wong, Chen, Goggins, Tang, & Leung, 2009).

Identification of factors associated with child victimization is an essential element of effective prevention. Exposure to family violence, which is the violence occurred against different members within the family, can be factors associated with or even predictive of the risk of child victimization. However, few studies have included the various types of family violence as factors associated with child victimization despite the possible links between

them. Many of the existing studies have focused mainly on the co-occurrence of two types of violence against children, such as child abuse and intimate partner violence (IPV; Casanueva, Martin, & Runyan, 2009), child abuse and elder abuse (Pitchard, 2007), and physical child abuse and school bullying (Dussich & Markoya, 2007). Despite the scarcity of earlier studies involving multiple forms of family violence, researchers have generally arrived at a conclusion that various types of violence are likely to co-occur among members within a family.

What lies beneath the association between child victimization and the family that the victim comes from has been one popular field of research interests. Apart from individual factors such as parental psychopathology and addictive behaviors (e.g. Windham et al., 2004), family disadvantages are one type of factors that have been consistently found to be predictive of child victimization and other family violence. For example, low socio-economic status and chronic poverty, which may increase the stress level and in turn the likelihood of harsh parenting practice among parents, are commonly identified as risk factors of family violence and child victimization (Rodriguez, 2010; Turner, 2005). Families with single parents are also believed to be at greater risk of violence (Turner, Finkelhor, Hamby, & Shattuck, 2013). In addition to the greater chance of having financial hardship, single parents are likely to have less time devoted to their children. Children with lower levels of parental supervision are more at-risk to violence in the extra-familial contexts. Children with siblings may also face similar situations, for the time and resources tend to be diffused with more children in a family (Ma, Liu, Liu, & Liu, 2007).

In this study, the prevalence of child victimization using a large and diverse sample of school-aged children from six geographical regions in China was investigated. The main objective was to examine the associations between child victimization and various types of family violence. Three types of family violence were selected with reference to the positive

findings in previous research. Other than IPV between parents (e.g. Casanueva et al., 2009) and elder abuse against elderly members of the family (e.g. Pitchard, 2007), in-law conflict between parents and grandparents of the child was also included in this study. With reference to the positive association between in-law conflict and IPV (e.g. Chan et al., 2009) as well as the link between IPV and child maltreatment, in-law conflict may be one kind of family violence that is closely related to child victimization. Also, the associations between various family characteristics and child victimization were explored. Based on earlier research (e.g. Turner et al., 2013), the following family factors were selected: (a) socio-economic status and financial hardship, which were indicated by the education level, employment status and incomes of parents; (b) marital status of parents; (c) and the number of children within the family. This study took a children's perspective on examining the issue, and therefore used child reports of their own experience of violence victimization and witnessing family violence. Based on past findings on violence (e.g. Casanueva et al., 2009; Chan et al., 2009; Pitchard, 2007; Turner et al., 2013), the hypotheses were (a) that children's exposure to past parental IPV, in-law conflict, and elder abuse at home would be associated with a higher likelihood of victimization and poly-victimization; and (b) that various family disadvantages, such as financial hardship and single parents, would be associated with greater likelihood of victimization and poly-victimization.

Methods

Study Design and Sample Characteristics

This study employed data from a large study which had been conducted in China during 2009 and 2010. As noted in previous research (Chan, Yan, Brownridge, & Ip, 2013), it could be an extremely challenging task to recruit a sample that truly represents the Chinese population given its enormous size and diverse ethnicities. Therefore, the study adopted a more practical method of sampling by purposively selected six cities from different

geographic regions in China. The six cities were Tianjin (northern), Shenzhen (southern), Shanghai (eastern), Xi'an (western), Wuhan (central), and Hong Kong (a special administrative region). A two-stage stratified sampling strategy was employed: Three districts were randomly selected in each city, and schools were randomly sampled from each district. A total of 150 schools agreed to participate, giving a response rate of 76.7%. One class in each grade was then sampled, and all children in that class were invited to complete the survey on normal school days. After obtaining consent from the children as well as one of their parents, children were asked to respond to questions by completing a structured survey. All completed surveys were sealed in an envelope on the children's own to ensure privacy. A total of 18,341 children returned a completed survey, giving a response rate of 99.7% at individual level. More details of the study design and procedures have been published elsewhere (Chan, 2013; Chan et al., 2013).

In this analysis, the data of 18,341 children recruited in school settings was employed. All of these children were 15-17 years old (mean = 15.86, $SD = 0.97$) during the study, and girls comprised 46.7% of the sample. Regarding the ethnicity, more than 90% of the children were from *Han*, and others were from *Hui*, *Manchu*, *Uygur*, or *Zhuang*. About 58.9% of children had at least one sibling, and the mean number of siblings was 0.91 ($SD = 1.04$). Around 90.2% of parents were married or cohabiting. More than one fifth (23.9%) of families had income below the median in this sample, and 7.4% were receiving social security (which was equivalent to social assistance in the United States) at the time of the survey. The unemployment rates of fathers and mothers were 5.8% and 5.9% respectively. Ethical approval was granted by the institutional review board of The University of Hong Kong and the Hospital Authority Hong Kong West Cluster, and the local institutional review boards of the five Mainland cities. For further information on other demographic characteristics, see Chan et al.'s study (2013).

Measures

Child victimization. The Chinese version of the 34-item Juvenile Victimization Questionnaire (JVQ) was used to assess child victimization experiences (Chan, Fong, Chow, & Ip, 2011). Five aspects of victimization are covered in the JVQ, namely conventional crime (e.g. “Did anyone steal something from you and never give it back? Things like a backpack, money, watch, clothing, bike, stereo, or anything else?”); child maltreatment (e.g. “Not including spanking on your bottom, in the last year, did a grown-up in your life hit, beat, kick, or physically hurt you in any way?”); peer and sibling victimization (e.g. “Sometimes groups of kids or gangs attack people. In the last year, did a group of kids or a gang hit, jump, or attack you?”); sexual victimization (“Now think about kids your age, like from school, a boy friend or girl friend, or even a brother or sister. In the last year, did another child or teen make you do sexual things?”); and witnessing of or indirect victimization (e.g. “In the last year, in real life, did you see anyone get attacked on purpose with a stick, rock, gun, knife, or other thing that would hurt? Somewhere like: at home, at school, at a store, in a car, on the street, or anywhere else?”). All items were rated on a 3-point Likert scale (“0” = no experience; “1” = experienced in the preceding year; and “2” = experienced before the preceding year). Children who responded with a “1” to any item were included in the preceding-year prevalence figures, while those responding with a “1” or “2” were counted in the lifetime prevalence figures. Children who reported four types of victimization or more among the five aspects covered by the JVQ were regarded as poly-victims (Finkelhor et al., 2007).

The overall reliability of the JVQ was good (Cronbach’s alpha = .90) and comparative to that shown in the past (Finkelhor et al., 2007). In this sample, approximately 57.1% reported conventional crime; 28.1% reported child maltreatment by parents; 8.0% reported sexual victimization; 32.6% reported peer and sibling victimization; and 40.3% reported

indirect victimization. The preceding-year prevalence was 43.1%, 21.7%, 6.4%, 25.3%, and 32.7% for the five types of victimization respectively (Chan et al., 2013).

Family violence witnessed. Children's experience of witnessing IPV between parents (parental IPV) was assessed with four items modified from the Abuse Assessment Screen (AAS; Soeken, McFarlane, Parker, & Lominack, 1998). The items covered physical and psychological violence by (a) father against mother and (b) mother against father. Sample items are "Witnessed father used violence against mother (e.g. pushing, twisting, slapping, beating and kicking)" and "Witness father used verbal or psychological aggression against mother (e.g. insulted or swore, shouted or yelled, destroyed something belonging to mother, threatened, and ignored)." Experience of witnessing physical and verbal in-law conflict, which was defined as the conflict between children's parents and grandparents, was measured by two binary items that had been used in previous research (Chan et al., 2009). One of the items was "Witnessed conflict between father and his in-laws (verbal conflict or use of force)." On the other hand, children's experience of witnessing elder abuse at home was captured with three binary items covering physical abuse (i.e., "Someone used physical force against elderly at home"); verbal abuse (i.e., "Someone used verbal aggression against elderly at home"); and neglect (i.e., "Elderly lack of care (e.g. inadequate food or clothing, or no care when sick)") respectively. The reliability was satisfactory in these three scales, with Cronbach's alpha ranging from .60 to .85.

Statistical analyses

The lifetime and preceding-year prevalence rates of children's victimization of different aspects of violence and their experience of witnessing various types of family violence were computed using descriptive statistics. Children who did not give any positive response to the items in the JVQ were grouped them as having "no victimization," those reported positive response to any one to three modules of the JVQ were defined as having

“one to three types of victimization;” whereas those reported experience on violent incidents from four to five modules of the JVQ were classified as having “poly-victimization.”

Associations between preceding-year child victimization and the witnessing of different types of family violence were examined using separate multinomial logistic regressions. In these regression analyses, the dependent variable (i.e. the number of types of child victimization) was ordered as “0” (no victimization), “1” (one to three types of victimization), and “2” (poly-victimization). The independent variables were classified into two groups: (a) demographic variables and (b) family violence witnessed. Using the two groups of independent variables, there were two phases of regression analyses in this study. In Phase 1, separate multinomial logistic regressions were conducted with the adjustment of all demographic variables other than the one using as the independent variable, and, in Phase 2, separate regressions were done with all demographic variables in Phase 1 being adjusted for. It should be noted that children’s experience on physical IPV between parents was excluded in the association analyses in order to avoid possible overlapping with one of the items in the JVQ (i.e., Item 1 in the module of indirect victimization: “Did you see one of your parents get hit by another parent or their boyfriend/girlfriend? How about slapped, punched, or beat up?”). In all analyses, missing data were handled with listwise deletion and model goodness-of-fit was tested using the Hosmer and Lemeshow (H-L) test.

Results

Table 1 shows the lifetime and preceding-year prevalence of child victimization and family violence witnessed by children. Among the school-aged children in this study, 71.7% had experience of at least one form of victimization over their lifetime, while 60.0% reported such experience during the preceding year; 14.0% of the children were victims of poly-victimization, and about 9.2% had experienced poly-victimization during the preceding year. Gender differences appeared in the distributions of children in terms of the number of

victimization incidents experienced: A higher proportion of boys than girls reported being poly-victims both throughout their life (boys = 15.8%; girls = 12.0%, $p < .001$) and during the preceding year (boys = 10.6%; girls = 7.5%, $p < .001$).

The lifetime prevalence of family violence witnessed by children ranged from 8.3% to 41.4%, whereas the preceding-year prevalence ranged from 3.7% to 25.0%. The most prevalent form of family violence was psychological violence between parents, followed by physical violence between parents, and elder neglect. Again, there were gender differences in terms of the children's exposure to family violence: Girls were more likely to report physical and psychological violence between parents, as well as conflicts between parents and grandparents (all $p < .001$).

[Table 1 about here]

Tables 2 and 3 present the percentages of non-victims, victims and poly-victims who reported having witnessed family violence in lifetime and preceding-year of the study. There were significant differences in the experience of family violence between non-victims, victims of one to three forms of victimization, and poly-victims (all $p < .001$). Overall, the following trends emerged: The likelihood of witnessing family violence increased with the increasing number of victimizations, and the highest proportions of children who reported family violence were found among poly-victims who had experienced four types of victimization or more.

[Table 2 & 3 about here]

Table 4 lists the adjusted odds ratios (*aOR*) that were found using separate multinomial regression analyses. Children living in mainland China were more likely than those in Hong Kong to be victims ($aOR = 1.60$, $p < .001$) and poly-victims of violence ($aOR = 2.47$, $p < .001$). Greater likelihood of being victims and poly-victims were associated with disadvantaged families, which could be characterized by having a widowed, separated or

divorced parent ($aOR = 1.18-1.65, p < .05$), receiving social security ($aOR = 1.25-1.67, p < .01$), and having lower family income ($aOR = 1.64-2.00, p < .001$). Being a boy, and being younger in age were associated with a higher likelihood of poly-victimization ($p < .001$). Having more than one sibling, on the other hand, was related to greater odds of both child victimization and poly-victimization ($aOR = 1.97-2.50, p < .001$).

All three types of family violence witnessed by children, i.e. psychological IPV between parents, elder abuse, and in-law conflict between parents and grandparents, were associated with higher likelihood of being child victims ($aOR = 2.25-3.33, p < .001$). The $aORs$ were even greater among poly-victims ($aOR = 4.82-9.21, p < .001$). Elderly neglect was the violence that increased the greatest odds of both child victimization and poly-victimization. When a child reported elderly neglect, he or she was at more than a threefold risk of reporting child victimization ($aOR = 3.33$ [95% confidence interval (CI) = 2.83, 3.91]), and a ninefold risk of having poly-victimization ($aOR = 9.21$ [95% $CI = 7.59-11.18$]).

[Table 4 about here]

Discussion

Using a large and diverse sample, this study provides estimates of the child victimization, poly-victimization, and various types of family violence witnessed by Chinese school-aged children recruited in six cities located in different geographical regions in China. Consistent with previous research (e.g. Cheng, Cao, Liu, & Chen, 2010; Finkelhor et al., 2007; Turner, Finkelhor, & Ormrod, 2010), this study provided a piece of supportive evidence that child victimization was prevalent in China. More than two thirds of children had been victims of violence, and two in every five children had been victimized in the preceding year. The findings also demonstrated that poly-victimization was not a rare phenomenon in China; almost one in every seven 15-17 year-old children in this study had experienced four forms of victimization or more in their life, and more than one eleventh of the children sample had

been poly-victims in a single year. In this study, boys were more likely than girls to be poly-victims of violence. This may be a result of the generally stricter parental supervision on girls than boys in the Chinese culture (Sun, Li, Ji, Lin, & Semaana, 2008). Girls are expected to stay at home rather than going or playing outside. Having more time spent at home may be a reason for the lower likelihood for girls to be victims of violence outside the family, as well as a higher likelihood for them to witness other types of family violence happening at home.

The current findings also indicated that children in the six cities in China were likely to be exposed to various types of family violence, including parental IPV, elder abuse and in-law conflict. Children's exposure to violence related to elderly (i.e. elder abuse and in-law conflict) may be a result of the extended family structure in China. It has been a common practice for the elderly to live with their eldest son and his family. Indeed, the Census data have shown that the majority of elderly aged 65 years or above lived with their children (Zeng & Wang, 2003). When elderly (grandparents of the children) are living in the same house with the parents of the children, the opportunity of interaction between them may be greater, and the likelihood of having conflict and violent incidents may then increase.

Consistent with the findings in earlier studies, family disadvantages were significantly related to child victimization. In particular, low socio-economic status, financial hardship and single parenthood were more likely to appear in the families with child victims and poly-victims. One of the common mechanisms of these associations can be the elevated level of stress and daily hassles resulted from the economic difficulties. Parental stress could then lead to a harsh or inconsistent parenting practice that might transform to child maltreatment (Turner, 2005). Having siblings was another characteristics that increased the risk of victimization. The odds of child poly-victimization were almost doubled among children with siblings when compared to those who had not. Not only could the siblings be a perpetrator of violence, but also could they be a source that shared the time and resources provided by

parents and decreased the level of parental monitoring. With a lower level of parental supervision, children with siblings might be more likely to be poly-victimized by peer victimization at home as well as other types of violence outside the family (Robertson, Baird-Thomas, & Stein, 2008). Indeed, previous research has suggested the association between having siblings, sibling violence, and other forms of child maltreatment in other culture (e.g. Noland, Liller, McDermott, Coulter, & Seraphine, 2004). Findings show that victims of sibling violence may exhibit psychological problems which place them at a higher risk of other types of victimization, forming a vicious cycle (Kiselica & Morrill-Richards, 2007).

After adjustment for demographic and socioeconomic factors, exposure to psychological IPV between parents, in-law conflict, and elder abuse in the family were all related to an increased risk of child victimization. The current findings indicated that witnessing family violence could put children in a fivefold to a ninefold risk of poly-victimization as compared to those who did not report any family violence. This provided supportive evidence for the claim that one type of violence victimization could co-occur with, or even be predictive of, other types of victimization (Perry, Hodges, & Egan, 2001; Tomison, 2002), and that children exposed to violence at home are more likely to be victimized in other settings as well (Finkelhor et al., 2007; Gilbert, Widom, Browne, Fergusson, Webb, & Janson, 2009). One possible explanation for this may be that the limited abilities and resources of violent parents set the children up for further victimization in other contexts (Dussich & Maekoya, 2007). Besides abusing their children, violent parents may also commit child neglect because the disruption of violence weakens their ability to supervise and protect their children (e.g., as a result of mental health problems such as depression and substance abuse which are associated with their own victimization) (Coohey & Zhang, 2006; Hartley, 2004). Neglect caused by family and parental problems often results in insecure attachment, which is in turn associated with subsequent victimization (Perry et al., 2001). Moreover, victimization

and violence inside the family can set a child up for further victimization within their peer group and other extra-familial contexts. Studies have established that children victimized at home are more likely to be bullied at school (Dussich & Maekoya, 2007). Some scholars have postulated that the emotional residues from intra-familial maltreatment, such as fear and hyperarousal, may interfere with appropriate peer interaction and accurate social information processing (Shields & Cicchetti, 2001). Lastly, disadvantaged community environments, such as poor neighborhoods and schools attended by the children of families with fewer resources, may also play a role in the victimization of children (Finkelhor, Ormrod, Turner, & Holt, 2009). In this study, elderly neglect was the type of family violence that was associated with the highest increase in the risk of both child victimization and poly-victimization. Children who reported elderly neglect were at a threefold risk of being victims of violence and at a ninefold risk of being poly-victims. This provided supportive evidence for the link between elder abuse and child maltreatment (Pitchard, 2007). However, how elder abuse, especially neglect, is associated with child victimization as well as why it increases the greatest risk of victimization may need further examination. Despite the need for further studies to examine the underlying mechanisms of the co-occurrence of various types of violence against children, the associations between child victimization and other types of family violence provide strong support for screening for other types of violence when one type is identified. Furthermore, intervention programs targeting child victimization should consider incorporating measures to stop other types of violence within a family.

This study is one of the very few studies to provide reliable estimates of child victimization and poly-victimization and to examine the associations between victimization and other types of family violence using a large and diverse Chinese sample recruited purposively from different geographical regions. However, there are several limitations to this study. First, the limitation of the cities used for sample recruitment. Although we adopted a

special two-stage representative sampling procedure to recruit a sample that was representative to the cities included which were as diverse as possible. Thus, the sample was not representative to the whole country. Therefore, the findings may not be generalizable to the whole Mainland China. Another limitation concerns the cross-sectional design of this study. Although the present findings show the significant links between child victimization and family violence, it had limitation to establish any causal or temporal relationship between the variables. Also, the details of the incidents of family violence witnessed by children were not assessed in this study given the need to reduce the burden on the children informants. It made the tests of some hypotheses impossible (e.g. whether there was any gender difference in the perpetrator of elder abuse and whether this affected child victimization). Lastly, the inclusion of control variables in the regression models was not exhaustive; only several demographic factors were included in this study. There may be other confounding factors for child victimization at different levels (e.g., community or society level), but this study was unable to control for the effects of these confounding factors on the relationship between victimization and family violence.

Child victimization is expensive to societies. Estimates of such medical and mental health costs are required to address this newly prioritized problem and would greatly facilitate the development of effective measures to help its victims. This study has shown that child victimization is prevalent in China. However, there is still limited recognition and identification of this problem. The lack of a formal definition of child abuse and the underuse of coding systems for child abuse, such as the International Classification of Diseases (ICD-10; World Health Organization, 2004), in health settings can be major barriers to successful interventions for victims. In Mainland China, routine screening is uncommon in most hospitals, even those dedicated to children. Training practitioners and formalizing the procedures for identifying child victimization and establishing an official database of cases

for the use of frontline professionals may be effective first steps toward addressing the problem in Mainland China. In Hong Kong, children suspected being abused or victimized would be referred pediatric ward once they are admitted to emergency department. They would be screened and assessed by a pediatrician for abuse or victimization. It could be a good practice being referenced in Mainland China.

Given the strong association between child victimization and other forms of family violence, screening for the latter when there are child victims may be a useful means of detecting multiple types of violence and hence reducing re-victimization. Taking a more integrated approach of violence screening that focuses on the whole family rather than one single problem may be effective to identify other victims in the same family. The integrated approach of family violence may also lead one to a concept of poly-victimization of family violence, which refers to a family victimized by multiple types of violence at the same time. Future research may focus on the common risk factors for poly-victimized families, and explore the impact of poly-victimization on different family members as well as on the community.

Using a large and diverse sample of school-aged children, this study provides a comprehensive profile of the prevalence of child victimization and family violence in China. It explores the prevalence of violence experienced by children in various settings with an emphasis on violence in their family, including parental IPV, elder abuse, and in-law conflict between parents and grandparents. Reliable estimates of such prevalence rates may facilitate better resource allocation in healthcare and mental health settings. In addition, our data reveal strong associations between previous experience of the four main types of family violence and the likelihood of this increasing the risk of child victimization. Child protection services and services for IPV or family violence should therefore screen for as many types of violence and victimization that children may experience or be exposed to as possible. Multidisciplinary

collaboration between health professionals and nongovernmental organizations working on different types of violence should be undertaken so as to provide better integrated prevention programs with the capacity to address the coexistence of multiple forms of violence within the same nuclear family.

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Table 1

Lifetime and preceding-year prevalence of child victimization, and family violence witnessed by children, by gender

Victimization	Lifetime Prevalence (%)				Preceding-year Prevalence (%)			
	All (N = 18,341)	Girls (n = 8,568)	Boys (n = 9,773)	p-value ^a	All (N = 18,341)	Girls (n = 8,568)	Boys (n = 9,773)	p-value ^a
Child victimization				<0.001				<0.001
No victimization	28.3	28.7	28.0		40.0	40.5	39.6	
Any 1-3 types of victimization	57.7	59.3	56.2		50.8	52.0	49.8	
Poly-victimization (Any four types of victimization or more)	14.0	12.0	15.8		9.2	7.5	10.6	
Family violence witnessed								
Parental IPV								
Physical	24.6	26.5	23.1	<0.001	9.5	10.2	8.9	<.01
Psychological	41.4	46.2	37.3	<0.001	25.0	27.9	22.4	<0.001
In-law conflict	13.3	14.3	12.3	<0.001	5.2	5.6	4.8	.02
Elder abuse								
Physical	8.3	8.2	8.4	.67	3.7	3.5	3.8	.31
Verbal	13.6	13.9	13.3	.32	7.2	7.2	7.1	.82
Neglect	14.3	14.7	14.1	.25	9.4	9.8	9.1	.12

Note. ^a P-value by χ^2 test.

Table 2

Percentages of non-victims, victims of 1-3 types of child victimization, and poly-victims who reported having witnessed family violence in Lifetime

Family violence witnessed	Lifetime child victimization (%)			<i>p</i> -value ^a
	Non-victims (<i>n</i> = 5,191)	Victims (1-3 types) (<i>n</i> = 10,582)	Poly-victims (4 types or more) (<i>n</i> = 2,568)	
Lifetime				
Parental IPV	21.6	44.7	67.8	< 0.001
(Psychological)				
In-law conflict	6.2	13.0	28.4	< 0.001
Elder abuse				
Physical	0.03	0.1	0.2	< 0.001
Verbal	0.04	0.1	0.3	< 0.001
Neglect	4.2	14.4	34.7	< 0.001

Note. ^a *P*-value by χ^2 test.

Table 3

Percentages of non-victims, victims of 1-3 types of child victimization, and poly-victims who reported having witnessed family violence in Preceding-year

	Preceding-year child victimization (%)			<i>p</i> -value ^a
	Non-victims (<i>n</i> = 7,336)	Victims (1-3 types) (<i>n</i> = 9,318)	Poly-victims (4 types or more) (<i>n</i> = 1,687)	
Family violence witnessed				
Preceding-year				
Parental IPV	15.5	29.2	42.5	< 0.001
(Psychological)				
In-law conflict	2.4	5.8	14.0	< 0.001
Elder abuse				
Physical	1.5	3.8	12.5	< 0.001
Verbal	2.9	8.1	20.7	< 0.001
Neglect	3.6	11.0	26.4	< 0.001

Note. ^a *P*-value by χ^2 test.

Table 4

Independent associations between preceding-year child victimization, demographic characteristics, and various types of family violence witnessed by children (N = 14,240)

Variable	Adjusted OR (95% CI)				Nagelkerke R^2
	Child victimization (1-3 types)		Poly-victimization (4 types or more)		
Phase 1: Demographic variables					8.0%***
Living in mainland city	1.60***	(1.46, 1.75)	2.47***	(2.06, 2.97)	
Receiving social security	1.25**	(1.09, 1.43)	1.67***	(1.36, 2.04)	
Family income below median	1.64***	(1.52, 1.76)	2.00***	(1.76, 2.28)	
Widowed, separated, or divorced parents	1.18*	(1.03, 1.35)	1.65***	(1.33, 2.05)	
Child gender (boy)	1.05	(0.98, 1.13)	1.58***	(1.39, 1.79)	
Child age (mean)	0.98	(0.95, 1.02)	0.84***	(0.79, 0.90)	
Having sibling(s)	1.97***	(1.82, 2.12)	2.50***	(2.18, 2.86)	
Phase 2: Family violence witnessed in the preceding year					
Parental IPV (Psychological)	2.41***	(2.20, 2.64)	4.82***	(4.20, 5.53)	12.7%***
In-law conflict	2.63***	(2.14, 3.22)	7.24***	(5.69, 9.21)	10.0%***
Elder abuse					
Physical	2.25***	(1.75, 2.88)	7.50***	(5.68, 9.89)	9.6%***
Verbal	2.65***	(2.22, 3.16)	7.94***	(6.45, 9.77)	11.0%***
Neglect	3.33***	(2.83, 3.91)	9.21***	(7.59, 11.18)	12.2%***

Note. Abbreviations: OR=odds ratio. CI=confidence interval.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Referent group of the regression models: child victimization (no victimization); residential site (living in Hong Kong); marital status (married/cohabiting); education level (tertiary or above); family income (above median income); gender (girl).

Variables in Phase 1 were adjusted by all other variables in the same phase, while variables in Phase 2 were adjusted by all variables in Phase 1.