



Universiteit
Leiden
The Netherlands

Child maltreatment in Vietnam : prevalence, risk factors, and consequences

Tran Kieu, N.

Citation

Tran Kieu, N. (2017, December 12). *Child maltreatment in Vietnam : prevalence, risk factors, and consequences*. Retrieved from <https://hdl.handle.net/1887/59478>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/59478>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The following handle holds various files of this Leiden University dissertation:
<http://hdl.handle.net/1887/59478>

Author: Tran, Kieu N.

Title: Child maltreatment in Vietnam : prevalence, risk factors, and consequences

Issue Date: 2017-12-11



Chapter 6

GENERAL DISCUSSION

This dissertation provides insight into various aspects of child maltreatment in Vietnam, from the prevalence in chronological and cross-cultural perspectives to its association with several risk factors and outcomes. Child maltreatment appears to be highly prevalent in Vietnam and most types of child maltreatment, except sexual abuse, are more prevalent in Vietnam than in the Netherlands (Chapter 2). The chronological comparison in Chapter 3 showed unchanged prevalence of sexual abuse and neglect and reduced prevalence of emotional abuse and physical abuse (whole sample only; not in the Hanoi sample) over a decade in Vietnam. Regarding the association of child maltreatment with child and family risk factors, single parenthood, child age, and being a boy were associated with more child maltreatment experiences, and higher socioeconomic status and parental employment were related to more emotional abuse (Chapter 4). The examination of the association of child maltreatment with child wellbeing in Chapter 5 showed that all types of child maltreatment were related to emotional dysfunctioning and that physical abuse, sexual abuse, and neglect were associated with poorer perceived physical health. Besides, sexual abuse and neglect were associated with poorer working memory performance and emotional abuse was related to better academic performance. In this final chapter, these results will be put in a broader perspective, followed by a discussion of issues regarding the measurement of maltreatment in this study.

RISK FACTORS FOR CHILD MALTREATMENT IN VIETNAM: AN ECOLOGICAL PERSPECTIVE

We found several risk factors to be associated with child maltreatment. To have a better view on the scale of the effects of each of the significant risk factors in our study, we converted odds ratios from logistic regression analyses into effect sizes (Cohen's *d*) based on Borenstein et al. (Borenstein, Hedges, Higgins, & Rothstein, 2009) and Chen et.al (Chen, Cohen, & Chen, 2010). Cohen's *d* values of 0.2, 0.5, and 0.8 are considered as corresponding to a small, medium, and large effect size, respectively (Cohen, 1988). Figures 6.1 and 6.2 provide a summary of the risk factors and their effect sizes (for past year and lifetime maltreatment). We found that being a boy was a risk factor for lifetime experience of sexual abuse, and both past year and lifetime physical abuse. Effect sizes were, however, small. In addition, the risks of lifetime emotional abuse and witnessing parental conflict increased with age, but these associations showed very small effect sizes. In addition, living in a single parent family was associated with higher lifetime experience of sexual abuse and neglect with a small to medium effect size, and higher past year and

lifetime experience of witnessing parental conflict with a medium effect size. Unexpectedly, low socio-economic status and parental unemployment were related to *lower* past year and lifetime emotional abuse, respectively. Both effects had a small effect size. It could be seen that the magnitude of the effect of single parenthood was largest compared with other factors. And although the associations of other factors with child maltreatment were present, the magnitude of the effects was quite small.

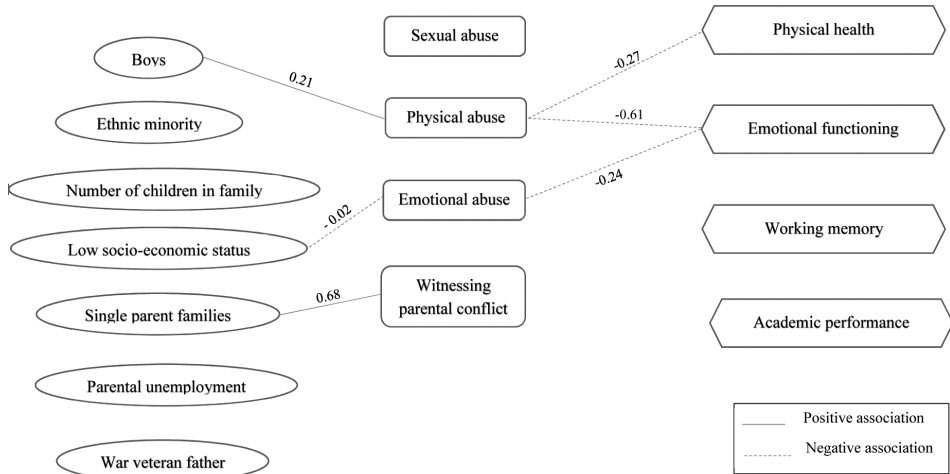


Figure 6.1 | Associations of past year child maltreatment with risk factors and child wellbeing aspects (Cohen's d)

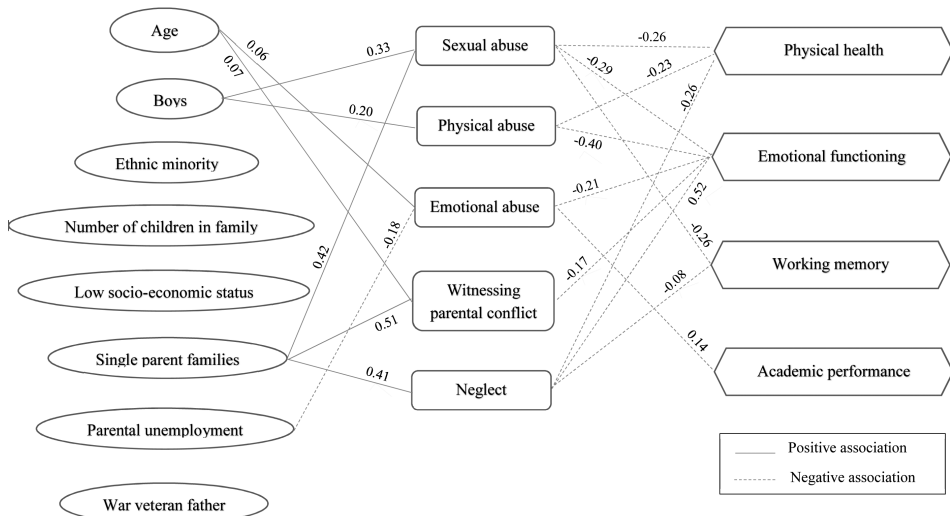


Figure 6.2 | Association of lifetime child maltreatment with risk factors and child wellbeing aspects (Cohen's d)

Our results regarding risk factors for child maltreatment in Vietnam can be viewed from an ecological perspective, which may shed more light on directions for interventions and policy. From an ecological perspective, the occurrence of a phenomenon is determined by interrelated factors at multiple levels. Considering Bronfenbrenner’s model (Bronfenbrenner, 1979; Bronfenbrenner, 2009) and the risk factors in the ecological framework in the guide by the WHO and IPSCAN to prevent child maltreatment (Who & Ipscan, 2006), risk factors related to child maltreatment could be categorized in three levels namely the microsystem, the exosystem and the macrosystem. The *microsystem* level includes the immediate context in which child maltreatment takes place. The *exosystem* covers larger social structures such as the context of work and neighborhoods. Factors at the *macrosystem* relate to characteristics of the overarching setting contributing to child maltreatment such as culture, social norms, and national policies. Figure 6.3 shows the ecological framework with examples of relevant factors for Vietnam at the different levels, in which our results are integrated at the *microsystem* and *exosystem* (factors in bold in Figure 6.3). The other examples are derived from literature outside of Vietnam because other reliable studies on risk factors of child maltreatment in Vietnam are virtually absent. The different levels are interrelated; the larger levels cover the smaller levels as individuals and their families are embedded in communities and then communities are placed within the larger society.

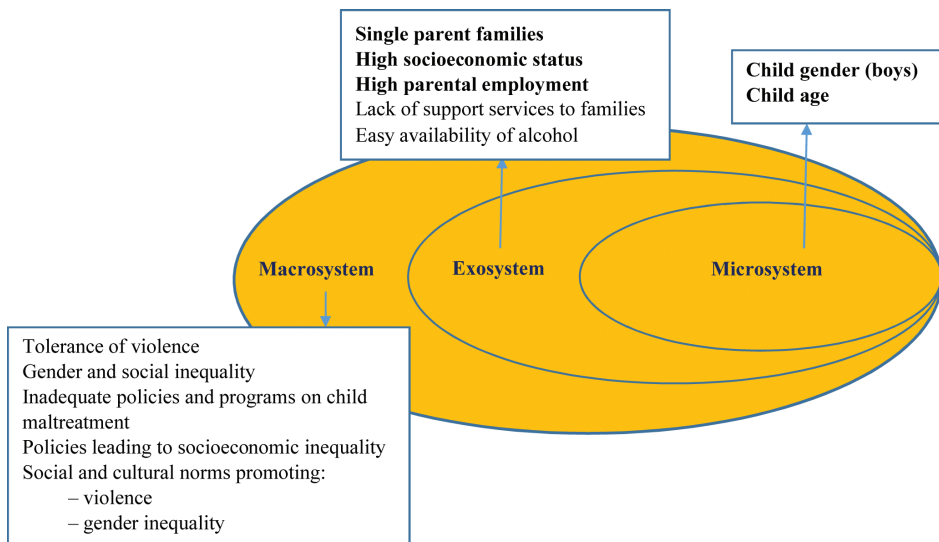


Figure 6.3 | Ecological framework model of risk factors for child maltreatment in Vietnam

Note. **Factors in bold:** are the results of this study
 Factors in regular: are based on the review of other literature

On the *microsystem level* we found that boys and older adolescents were at higher risk of maltreatment, although effect sizes were small. Our study also showed that significant risk factors on the *exosystem level* were living in a single parent family, high socioeconomic status, and high parental employment status. Single parenthood affected child maltreatment the most, both in terms of the number of types of child maltreatment and the magnitude of the effects. In addition, although we did not study “Tiger parenting” directly, the association of emotional abuse with high academic performance as well as the association of high socioeconomic and employment status with emotional abuse suggests that “Tiger parenting” practice might be an underlying risk factor at the *microsystem level* which would need further investigation. In contrast with previous literature on the association of low SES with child maltreatment (Black, Smith Slep, & Heyman, 2001; Capaldi, Knoble, Shortt, & Kim, 2012; Stith et al., 2009), we did not find an increased risk of child maltreatment experience among children in families with low SES. More studies on child maltreatment could confirm this discrepancy.

In addition, literature concerning risk factors for child abuse and violent crimes in general suggests several risk factors at the *exosystem* and *macrosystem level* in Vietnam. Inequality may be one of the most important risk factors for child maltreatment in Vietnam, given its association with violence (Fajnzyblber, Lederman, & Loayza, 2002). The rapid economic growth has enlarged the gaps between the poor and the rich and between urban and rural areas in Vietnam (Mocst, Gso, Unicef, & Ifgs, 2006), and although the government and public organizations have made great efforts in improving gender equity and promoting children’s rights, the gender inequality and power disparity between adults and children still exist. In addition, “primordial violence” is nurtured in the traditional belief that harsh discipline is the best way to educate children (Beazley, Bessell, Ennew, & Waterson, 2006), and the extensive war history of Vietnam may further stimulate the tolerant attitude towards violence. Alcohol use is found to be associated with violence perpetration, and the alcohol consumption in Vietnam is among the highest in the world. Despite the recent achievements in economic development, the social and political infrastructure have still lagged behind compared to the economic development, and there is a shortage of support services and legislation for child maltreatment (Molisa & Unicef, 2009; Unicef, 2017).

The factors summarized in the ecological framework in Figure 6.3 are not exhaustive. However, based on our current knowledge, this framework could contribute to explain the occurrence of child maltreatment as the interaction of multiple factors at various levels. Because this model depicts possible factors that may be relevant in Vietnam, it gives a basis for future research in which risk factors should be investigated

more broadly, and it may guide the process of developing a comprehensive child protection plan. The ecological framework also points out the importance of policies or interventions at the community and societal level, such as gender inequity, violence, and poverty because changes in community and societal levels may impact a large number of individuals and their social relationships. This framework is also useful in formulating strategies for child maltreatment interventions to determine their prioritized target ecological levels. It would be preferable if policy changes and research go hand in hand so the effectiveness of data and theory based policy can be tested.

THE ASSOCIATION OF CHILD MALTREATMENT WITH CHILD WELLBEING

The ecological framework presented risk factors for child maltreatment in Vietnam. In turn, child maltreatment increases the chance of a disadvantageous development on several child wellbeing aspects as shown in Figure 6.1 and Figure 6.2. Similar to the risk factors, we converted the betas from the linear regression analyses on consequences into effect sizes (Cohen's *d*) to be able to estimate the sizes of the effects (Borenstein et al., 2009). Most types of child maltreatment were associated with emotional dysfunctioning (Figure 6.1 and Figure 6.2). Past year physical abuse and lifetime neglect predicted emotional dysfunctioning with a medium effect size, and effect sizes for lifetime physical abuse, lifetime sexual abuse, lifetime witnessing parental conflict, and both past year and lifetime emotional abuse were small. Similarly, all the effect sizes of the associations of past year and lifetime physical abuse, lifetime sexual abuse and neglect with physical health, the association between lifetime sexual abuse and poorer working memory performance, and between lifetime emotional abuse and higher academic performance were small. The magnitude of the effect of child maltreatment on emotional functioning was largest compared to the effects on other child wellbeing aspects, which were only small.

Several mechanisms may explain the consequences of maltreatment on wellbeing. As discussed in Chapter 5, there is a wide range of evidence on the association of child maltreatment with the impairment of the stress response system (i.e. reduced hippocampal volume, a brain area regulating the stress system, impaired function of the hypothalamic-pituitary-adrenal axis) (Alink, Cicchetti, Kim, & Rogosch, 2012; Carpenter, Shattuck, Tyrka, Geraciotti, & Price, 2011; Riem, Alink, Out, Van Ijzendoorn, & Bakermans-Kranenburg, 2015). These impairments of the stress response system were found to alter metabolism, immune response, memory, and mental health status (Heim, Newport, Mletzko, Miller, & Nemeroff, 2008; Silverman & Sternberg, 2012).

Risky behavior practices among child maltreatment victims, which may also be related to an altered stress response system (Platje et al., 2013), could also worsen emotional, cognitive, and physical health functioning (Silverman & Sternberg, 2012).

The consequences on emotional, cognitive, and physical health dysfunctioning during childhood could be one of the pathways leading to the long term consequences of child maltreatment on various aspects in adulthood. Poorer physical health and mental health difficulties in adults with a history of child maltreatment victimization were observed in meta-analyses (Hemmingsson, Johansson, & Reynisdottir, 2014; Hillberg, Hamilton-Giachritsis, & Dixon, 2011; Wegman & Stetler, 2009). Besides, child maltreatment was associated with lower education, unemployment, and a lower income in adulthood in a longitudinal study (Currie & Widom, 2010) and a systematic review (De Jong, Alink, Bijleveld, Finkenauer, & Hendriks, 2015). Other functioning as adult roles were also altered such as parenting, quality of relationship and risky behavior involvement (De Jong et al., 2015; Norman et al., 2012). Economic loss of societies due to child maltreatment was proven to be significant (from 1.24% to 3.46% of the gross domestic products) in the systematic reviews and meta-analyses of Fang et al. (Fang et al., 2015). Because of the consequences on many life domains both in childhood and adulthood, child maltreatment should be intervened early to prevent the accumulation of consequences.

Although causality of child maltreatment on wellbeing at early life is supported by research with animal models (Koch, McCormack, Sanchez, & Maestripieri, 2014) and a longitudinal twin study (Jaffee, Caspi, Moffitt, & Taylor, 2004), our VPM-2014 study is a cross-sectional study, and causality of the effects could thus not be investigated. Furthermore, child emotional and behavioral problems can also increase the risk for child maltreatment. In a meta-analysis, child internalizing behavior was found to be a risk factor for neglect and physical abuse (Stith et al., 2009), and child interpersonal problems could be a risk factor for emotional abuse (Black, Smith Slep, et al., 2001). Our results concerning mental health could thus also suggest vulnerability of these children to experience maltreatment. Moreover, the association of lower working memory capacity with sexual abuse during lifetime may support the finding that low intelligence could be a risk factor for child sexual abuse victimization (Black, Heyman, & Smith Slep, 2001). Therefore, the association between child maltreatment and child wellbeing aspects may be reciprocal and effects could be bidirectional and worsen the situation of both child maltreatment and wellbeing.

EFFECTS OF MEASUREMENT ON CHILD MALTREATMENT PREVALENCE ESTIMATES

Chapter 2 and Chapter 3 used two different child maltreatment measures to make a cross-cultural comparison with the prevalence of child maltreatment in the Netherlands and a chronological comparison with the prevalence of 2004 in Vietnam. Since previous studies indicate that differences between questionnaires can result in different prevalence estimates (Stoltenborgh, Bakermans-Kranenburg, Alink, & Van Ijzendoorn, 2012; Stoltenborgh, Bakermans-Kranenburg, & Van Ijzendoorn, 2013; Stoltenborgh, Bakermans-Kranenburg, Van Ijzendoorn, & Alink, 2013; Stoltenborgh, Van Ijzendoorn, Euser, & Bakermans-Kranenburg, 2011), it may be worthwhile to explore differences in both of our measures and discuss possible effects on the prevalence estimates. Importantly, both measures were used in the same population of school children. One measure was based on the measure of the NPM-2010 (Euser et al., 2013) (NPM measure). The other (Vietnam measure) was constructed by Nguyen (Nguyen, 2006) and used in a child maltreatment study in 2004 in Vietnam (Nguyen, 2006; Nguyen, Dunne, & Anh, 2009).

To explore why the prevalence estimates differ, while having been assessed within the same sample, we made a detailed overview of the items of the two child maltreatment measures (Table 6.1). The colored rows in the table indicate comparable items measuring similar constructs or similar actions. For sexual abuse, the prevalence estimates based on the NPM measure were significantly lower than these based on the Vietnam measure. The main reason for this may be that the Vietnam measure included questions about non-contact sexual abuse, with a prevalence of 17.2%, while there are no items specifically measuring non-contact sexual abuse in the NPM measure. In addition, although sexual abuse with physical contact in the Vietnam measure contains fewer items, it covers more different acts of sexual abuse compared to the NPM measure, which may be an additional explanation for the higher prevalence. Furthermore, because the item “tried to have sexual intercourse,” which is only included in the Vietnam measure, might be sensitive to subjective interpretation, this item could explain the higher prevalence of sexual abuse with physical contact in the Vietnam measure compared to the NPM measure.

Table 6.1 | Child maltreatment items and prevalence rates based in the NPM measure (Chapter 2) and the Vietnam measure (Chapter 3)

Type of CM	NPM measure (Chapter 2)	Prevalence % (84%CI)	Vietnam measure (Chapter 3)	Prevalence % (84%CI)
Sexual abuse		7.1 (6.3-8.1)		21.2 (19.9-22.6)
Contact sexual abuse	<ul style="list-style-type: none"> An adult member of my family has forced me to look at his/her genitals or to touch them, or he/ she has done this to me A child/young person from my family has forced me to look at his/her genitals or to touch them, or he/she has done this to me An adult who does not belong to my family has forced me to look at his/her genitals or to touch them, or he/ she has done this to me A child/young person who does not belong to my family, has forced me to look at his/her genitals or to touch them, or he/she has done this to me 	5.6 (4.9-6.5)	When you were growing up, did any adult ever do any of the following acts to you, while you didn't want it? <ul style="list-style-type: none"> Touched or fondled your private parts Made you touch or fondle their private parts 	8.6 (7.7-9.6)
Non-contact sexual abuse	<ul style="list-style-type: none"> An adult member of my family has had sex with me An adult who does not belong to my family, has had sex with me 	-	<ul style="list-style-type: none"> Tried to have sexual intercourse with you but was unsuccessful Did someone have sexual intercourse with you? 	17.2 (16.0-18.5)
			When you were growing up, did any adult ever do any of the following acts to you, while you didn't want it? <ul style="list-style-type: none"> Spoke to you in an obscene way or talk to you in sexual way Exposed their private parts to you Made you see sexual scenes on video, or porn magazines/ photos 	

<p>General</p> <ul style="list-style-type: none"> • A child/young person from my family has done things to me that you could call sexual abuse • A child/young person who does not belong to my family, has done things to me that you could call sexual abuse 	<p>3.2 (2.7-3.9)</p>	<p>1.4 (1.1-1.9)</p>
<p>Physical abuse</p>	<p>38.5 (36.9-40.1)</p>	<p>62.2 (60.5-63.8)</p>
<p>• My mother/father grabbed me around my neck and choked me</p> <p>• My mother/father burned or scalded me on purpose</p> <p>• My mother/father beat me with a fist or kicked me hard</p> <p>• My mother/father threw me or knocked me down</p> <p>• My mother/father beat me up, that is he/she hit me over and over</p> <p>• My mother/father hit me on my bottom with something</p>	<p>When you grew up, did any adult ever do something like</p> <ul style="list-style-type: none"> • pushing, grabbing, or shoving you, throwing something at you? • choking you, or burning or scalding you? • kicking or hitting you with a fist or other objects, or beating you up? • spanking you with something? 	
<p>• My mother/father hit me on some other part of my body besides my bottom</p> <p>• My mother/father threatened me with a knife or a gun</p> <p>• My mother/father threatened to spank or hit me but did not actually do it</p>	<p>59.9 (58.3-61.5)</p>	<p>81.7 (80.4-82.9)</p>
<p>Emotional abuse</p>	<p>When children grow up, their parents/guardians or adults in their family may have treated them in some ways as in the incidents below. Did any of these incidents happen to you?</p> <ul style="list-style-type: none"> • Yell at you • Insult you • Try to make you feel guilty • Embarrass you in front of others • Make you feel like you were a bad person • Wish you were never born <p>When you grew up, did any adult in your family threaten to hurt or kill you?</p>	

Witnessed parental conflict	<ul style="list-style-type: none"> • My mother/ father pushed, grabbed, or shoved the other • My mother/ father slapped the other • My mother/ father kicked, bit or hit the other with a fist • My mother/ father hit the other or tried to hit the other with something • My mother/ father beat the other up • My mother/ father threatened the other with a knife or gun • My mother/ father used a knife or fired a gun against the other 	23.7 (22.3-25.1)	-
Neglect		83.5 (82.2-84.7)	45.2 (43.5-46.8)
Educational neglect	<ul style="list-style-type: none"> • When I was younger, my parents made sure I went to school • My parents did not care if I got into trouble in school • My parents helped me with my homework 	76.9 (75.5-78.2)	-
Physical neglect	<ul style="list-style-type: none"> • When I was younger, my parents made sure I was clean • My parents gave me enough clothes to keep me warm 	14.0 (13.0-15.3)	Sometimes, parents or caretakers do not take care of children properly. Please answer the following questions about your life. When you grew up, have any of the following things happened to you? <ul style="list-style-type: none"> • You did not get enough food to eat • You had to wear dirty or torn clothes, or clothes that were not warm enough • You were not taken care of when you were sick
Emotional neglect	<ul style="list-style-type: none"> • When I was a child, my parents would comfort me when I was upset • My parents did not help me to do my best • My parents helped me when I had problems 	43.5 (41.9-45.2)	When you were growing up, did your parents/ guardians do the following things to you? <ul style="list-style-type: none"> • Didn't make you feel important • Didn't care about you • Were not close to you • Were not sources of strength to you

Note. Colored rows are comparable groups of items.

The prevalence of physical abuse based on the NPM measure was significantly lower than that based on the Vietnam measure. The number of physical abuse acts addressed in the questions was comparable between the two scales, although the scale of the NPM measure had two more items than the one of the Vietnam measure (Table 6.1). The most striking difference between the two scales was the definition of the perpetrator: for the NPM measure, only abuse by a parent, while in the Vietnam measure, abuse by any adult was considered physical abuse. The broader definition of possible perpetrators could explain the higher prevalence of physical abuse in Vietnam measure than in NPM measure.

Similar to sexual and physical abuse, the emotional abuse prevalence based on the NPM measure was lower than that based on the Vietnam measure. Again the definition of the perpetrator differed between the scales, with the NPM measure limiting this to mother or father, while the Vietnam measure took into account emotional abuse by parents/guardians or other adults in the family. In Vietnam, family size is generally large with many generations living in the same household. This could be an explanation for the higher prevalence of emotional abuse based on the Vietnam measure. In addition, the emotional abuse scale in the NPM measure covered only verbal abuse while the scale in the Vietnam measure did not restrict its definition to only verbal abuse (Table 6.1).

In the NPM measure, neglect was defined as the experience of at least 3 items of the 8-item scale (Lamers-Winkelmann, Slot, Bijl, & Vijlbrief, 2007). However, to be able to compare it with the 7-item neglect scale of the Vietnam measure, the neglect prevalence estimate in this section was defined as the experience of at least 1 item. The neglect prevalence based on the NPM measure was higher than the prevalence based on the Vietnam measure. Since the prevalence of physical neglect and emotional neglect of the two measures were similar, the reason for the higher neglect prevalence in the NPM measure was likely to be the presence of items considering educational neglect which were not included in the Vietnam measure.

In summary, the operationalization of sexual abuse, and neglect seemed to have played an important role in the prevalence estimates. The definition covering more subtypes of sexual abuse (contact and non-contact sexual abuse) and neglect (educational, physical, emotional neglect) seemed to have led to higher prevalence estimates. For physical abuse and emotional abuse, the operationalization of possible perpetrators seems to have influenced the prevalence estimates. Although meta-analyses pointed out the role of the number of items in prevalence estimates (Stoltenborgh, Bakermans-Kranenburg, Van Ijzendoorn, et al., 2013; Stoltenborgh et al., 2011)). Our comparison suggests that it may be the number of specific acts described

in the questionnaire which influences the prevalence estimates. Overall, the extensiveness of the child maltreatment definition considering the number of subtypes, of possible perpetrators and the number of acts included are likely to affect prevalence estimates. Based on these findings, it is recommended that published papers on child maltreatment provide detailed information about the items used to measure child maltreatment to enable the examination of the comparability of different studies using different measures and to facilitate combining study results in meta-analyses.

LIMITATIONS

Some limitations of this study should be mentioned. First, the VPM-2014 study made use of data from previous studies, which led to some unavoidable restrictions. The cross-cultural comparison in Chapter 2 used the available data of the NPM-2010 study, comparing prevalence estimates in the Netherlands and Vietnam. The difference in time points (2010 vs 2014) may affect the validity of the comparison between the two countries. However, there were no major political or societal changes from 2010 to 2014 in the two countries affecting the maltreatment situation significantly.

In addition, the administration of two child maltreatment questionnaires may have made the students resistant to answer overlapping questions which could have affected the validity of their responses. However, we excluded unreliable questionnaires which had a specific answering pattern (e.g., all questions answered with the highest possible score) or which had outlying scores on the Wildman Symptom Checklist, a bogus symptom scale. This data cleaning procedure has reduced response bias. Furthermore, the VPM-2014 is a cross-sectional study, so the direction of effects between risk factors, child maltreatment, and child wellbeing could not be confirmed. However, irrespective of the direction of the effect, the knowledge about the association with demographic factors and child wellbeing aspects is still valuable to identify children and families at risk and develop care plans for child maltreatment victims. Lastly, as most of the measures were retrospective, recall bias may have affected the validity of the findings.

FUTURE RESEARCH

This study contributes to relieve the scarcity of research on child maltreatment in limited resource contexts. More studies on various aspects of child maltreatment in these contexts should be conducted to shed more light on this problem. Specifically, there is a need for high quality cross-cultural studies that use the same methodology to get a valid international comparison. Published papers should therefore provide detailed information on the instruments used to measure child maltreatment to facilitate comparing results in meta-analyses or across studies. In addition it is important to study temporal changes in child maltreatment in limited resource countries periodically to evaluate the effect of child protection policies.

This dissertation also highlights the importance of conducting more research on neglect, an understudied type of child maltreatment. Even controlling for the effects of other types of child maltreatment, neglect was one of the two types of child maltreatment associated with poorer performance on the highest number of child wellbeing aspects. We also showed that the temporal changes of neglect seem different from other types of child maltreatment: neglect was unchanged over the recent decade despite the economic and societal growth in Vietnam whereas other types decreased. It is necessary to explore possible ways to stop and prevent neglect in future research. Besides, the association of emotional abuse with higher academic performance, emotional dysfunction, and high socioeconomic and parental employment status suggests a “Tiger parenting” practice in Vietnam. Future research could explore the prevalence of this phenomenon as well as its consequences both at the individual and societal level as “Tiger parenting” seems common in communities either living in or originated from East Asia. Other studies could also further verify and explore the mechanism underlying the higher reported prevalence of sexual abuse and physical abuse among boys in East Asian populations.

IMPLICATIONS FOR PRACTICE

Although there were some positive signs in the changes of emotional and physical abuse in Vietnam, all types of child maltreatment were still highly common in Vietnam and most were more prevalent than in the Netherlands, a *WEIRD* (Western Educated Industrialized Rich Democratic) country. Each type of child maltreatment was associated with poorer performance on at least one child wellbeing aspect. This dissertation highlights the importance of prompt responses to child maltreatment in

Vietnam. Child maltreatment interventions should prioritize single parent families as a high risk group (with a medium effect size) and be conducted as early as possible to prevent for multiple experiences of child maltreatment. A care plan for child maltreatment victims should be developed based on scientific evidence with more attention on emotional functioning, as its association with a large number of child maltreatment types had a medium effect size. The different reductions or increases of specific types of child maltreatment in specific groups over 10 years in Vietnam suggested that child maltreatment interventions should pay extra attention to physical abuse among girls, physical abuse and sexual abuse among older adolescents, and emotional abuse among younger adolescents. The common harsh discipline practice and limited knowledge about sex including sexual abuse in Vietnam might be underlying causes for some types of child maltreatment that need to be addressed. Low-cost and effective programs on positive parenting and comprehensive school-based sex education should be implemented. Further improvement of child protection services is also very important in the struggle against child maltreatment. Focus on child protection should be prioritized including but not limited to strengthening the social work force, child protection legislation, and a data monitoring system.

CONCLUDING REMARK

This dissertation sheds more light on child maltreatment in Vietnam specifically and in limited resource settings in general. Our study may promote a new routine of periodically assessing the prevalence of child maltreatment. All in all, it may contribute to the improvement of the child protection system in Vietnam.

REFERENCES

- Alink, L. R. A., Cicchetti, D., Kim, J., & Rogosch, F. A. (2012). Longitudinal associations among child maltreatment, social functioning, and cortisol regulation. *Developmental Psychology, 48*, 224-236. doi: 10.1037/a0024892
- Beazley, H., Bessell, L., Ennew, J., & Waterson, R. (2006). What children say: Results of comparative research on physical and emotional Punishment of children in Southeast Asia, East Asia and the Pacific.
- Black, D. A., Heyman, R. E., & Smith Slep, A. M. (2001). Risk factors for child sexual abuse. *Aggression and Violent Behavior, 6*, 203-229. doi: [http://doi.org/10.1016/S1359-1789\(00\)00023-9](http://doi.org/10.1016/S1359-1789(00)00023-9)
- Black, D. A., Smith Slep, A. M., & Heyman, R. E. (2001). Risk factors for child psychological abuse. *Aggression and Violent Behavior, 6*, 189-201. doi: [http://doi.org/10.1016/S1359-1789\(00\)00022-7](http://doi.org/10.1016/S1359-1789(00)00022-7)
- Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2009). Introduction to Meta-Analysis (pp. 409-414). West Sussex: John Wiley & Sons, Ltd.
- Bronfenbrenner, U. (1979). The ecology of human development. Cambridge: Harvard university press.
- Bronfenbrenner, U. (2009). *The ecology of human development*: Harvard university press.
- Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A Systematic Review of Risk Factors for Intimate Partner Violence. *Partner abuse, 3*, 231-280. doi: 10.1891/1946-6560.3.2.231
- Carpenter, L. L., Shattuck, T. T., Tyrka, A. R., Geraciotti, T. D., & Price, L. H. (2011). Effect of childhood physical abuse on cortisol stress response. *Psychopharmacology (Berl)*, 214, 367-375. doi: 10.1007/s00213-010-2007-4
- Chen, H., Cohen, P., & Chen, S. (2010). How big is a big odds ratio? Interpreting the magnitudes of odds ratios in epidemiological studies. *Communications in Statistics-Simulation and Computation, 39*, 860-864. doi: <http://dx.doi.org/10.1080/03610911003650383>
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences. *Lawrence Erlbaum Associates, 2*.
- Currie, J., & Widom, C. S. (2010). Long-term consequences of child abuse and neglect on adult economic well-being. *Child Maltreatment, 15*, 111-120. doi: 10.1177/1077559509355316
- De Jong, R., Alink, L., Bijleveld, C., Finkenauer, C., & Hendriks, J. (2015). Transition to adulthood of child sexual abuse victims. *Aggression and Violent Behavior, 24*, 175-187.
- Euser, S., Alink, L. R., Pannebakker, F., Vogels, T., Bakermans-Kranenburg, M. J., & Van, I. M. H. (2013). The prevalence of child maltreatment in the Netherlands across a 5-year period. *Child Abuse & Neglect, 37*, 841-851. doi: 10.1016/j.chiabu.2013.07.004
- Fajnzylber, P., Lederman, D., & Loayza, N. (2002). Inequality and violent crime. *The Journal of Law and Economics, 45*, 1-39.

- Fang, X., Fry, D. A., Brown, D. S., Mercy, J. A., Dunne, M. P., Butchart, A. R., ... Swales, D. M. (2015). The burden of child maltreatment in the East Asia and Pacific region. *Child Abuse & Neglect*, *42*, 146-162. doi: 10.1016/j.chiabu.2015.02.012
- Heim, C., Newport, D., Mletzko, T., Miller, A., & Nemeroff, C. (2008). The link between childhood trauma and depression: insights from HPA axis studies in humans. *Psychoneuroendocrinology*, *33*. doi: 10.1016/j.psyneuen.2008.03.008
- Hemmingsson, E., Johansson, K., & Reynisdottir, S. (2014). Effects of childhood abuse on adult obesity: a systematic review and meta-analysis. *Obesity Reviews*, *15*. doi: 10.1111/obr.12216
- Hillberg, T., Hamilton-Giachritsis, C., & Dixon, L. (2011). Review of meta-analyses on the association between child sexual abuse and adult mental health difficulties: a systematic approach. *Trauma Violence Abuse*, *12*, 38-49. doi: 10.1177/1524838010386812
- Jaffee, S. R., Caspi, A., Moffitt, T. E., & Taylor, A. (2004). Physical maltreatment victim to antisocial child: evidence of an environmentally mediated process. *Journal of Abnormal Psychology*, *113*, 44-55. doi: 10.1037/0021-843x.113.1.44
- Koch, H., McCormack, K., Sanchez, M. M., & Maestripieri, D. (2014). The development of the hypothalamic-pituitary-adrenal axis in rhesus monkeys: effects of age, sex, and early experience. *Developmental Psychobiology*, *56*. doi: 10.1002/dev.21093
- Lamers-Winkelmann, F., Slot, N. W., Bijl, B., & Vijlbrief, A. (2007). Scholieren over mishandeling: Resultaten van een landelijk onderzoek naar de omvang van kindermishandeling onder leerlingen van het voortgezet onderwijs.
- Mocst, Gso, Unicef, & Ifgs. (2006). Result of nation-wide survey on the family in Vietnam 2006. Hanoi.
- Molisa, & Unicef. (2009). Creating a protective environment for children in Vietnam: an assessment of child protection laws and policies, especially children in special circumstances in Vietnam. Hanoi.
- Nguyen, H. T. (2006). *Child maltreatment in Vietnam: prevalence and associated mental and physical health problems*. Queensland: Queensland University of Technology.
- Nguyen, H. T., Dunne, M. P., & Anh, L. V. (2009). Multiple types of child maltreatment and adolescent mental health in Viet Nam. *Bulletin of the World Health Organization*, *88*, 22-30. doi: 10.2471/BLT.08.060061
- Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. *PLoS Medicine*, *9*, e1001349. doi: 10.1371/journal.pmed.1001349
- Platje, E., Jansen, L. M. C., Raine, A., Branje, S. J. T., Doreleijers, T. a. H., De Vries-Bouw, M., ... Vermeiren, R. R. J. M. (2013). Longitudinal associations in adolescence between cortisol and persistent aggressive or rule-breaking behavior. *Biological Psychology*, *93*, 132-137. doi: <http://dx.doi.org/10.1016/j.biopsycho.2013.01.002>

- Riem, M. M., Alink, L. R., Out, D., Van Ijzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2015). Beating the brain about abuse: Empirical and meta-analytic studies of the association between maltreatment and hippocampal volume across childhood and adolescence. *Developmental Psychopathology, 27*, 507-520. doi: 10.1017/s0954579415000127
- Silverman, M. N., & Sternberg, E. M. (2012). Glucocorticoid regulation of inflammation and its functional correlates: from HPA axis to glucocorticoid receptor dysfunction. *Annals of the New York Academy of Sciences, 1261*, 55-63. doi: 10.1111/j.1749-6632.2012.06633.x
- Stith, S. M., Liu, T., Davies, L. C., Boykin, E. L., Alder, M. C., Harris, J. M., ... Dees, J. E. M. E. G. (2009). Risk factors in child maltreatment: A meta-analytic review of the literature. *Aggression and Violent Behavior, 14*, 13-29. doi: <http://dx.doi.org/10.1016/j.avb.2006.03.006>
- Stoltenborgh, M., Bakermans-Kranenburg, M. J., Alink, L. R., & Van Ijzendoorn, M. H. (2012). The universality of childhood emotional abuse: a meta-analysis of worldwide prevalence. *Journal of Aggression, Maltreatment & Trauma, 21*, 870-890. doi: 10.1080/10926771.2012.708014
- Stoltenborgh, M., Bakermans-Kranenburg, M. J., & Van Ijzendoorn, M. H. (2013). The neglect of child neglect: a meta-analytic review of the prevalence of neglect. *Social Psychiatry & Psychiatric Epidemiology, 48*, 345-355. doi: 10.1007/s00127-012-0549-y
- Stoltenborgh, M., Bakermans-Kranenburg, M. J., Van Ijzendoorn, M. H., & Alink, L. R. (2013). Cultural-geographical differences in the occurrence of child physical abuse? A meta-analysis of global prevalence. *International Journal of Psychology, 48*, 81-94. doi: 10.1080/00207594.2012.697165
- Stoltenborgh, M., Van Ijzendoorn, M. H., Euser, E. M., & Bakermans-Kranenburg, M. J. (2011). A global perspective on child sexual abuse: meta-analysis of prevalence around the world. *Child Maltreatment, 16*, 79-101. doi: 10.1177/1077559511403920
- Unicef. (2017). Child protection overview. Retrieved 28 June 2017, from <https://www.unicef.org/vietnam/protection.html>
- Wegman, H. L., & Stetler, C. (2009). A meta-analytic review of the effects of childhood abuse on medical outcomes in adulthood. *Psychosomatic Medicine, 71*, 805-812. doi: 10.1097/PSY.0b013e3181bb2b46
- Who, & Ipscan. (2006). Preventing child maltreatment: a guide to taking action and generating evidence. Geneva: World Health Organization.

