

# Multiple types of child maltreatment and adolescent mental health in Viet Nam

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**Objective** To examine the prevalence of multiple types of maltreatment (MTM), potentially confounding factors and associations with depression, anxiety and self-esteem among adolescents in Viet Nam.

**Methods** In 2006 we conducted a cross-sectional survey of 2591 students (aged 12–18 years; 52.1% female) from randomly-selected classes in eight secondary schools in urban (Hanoi) and rural (Hai Duong) areas of northern Viet Nam (response rate, 94.7%). Sequential multiple regression analyses were performed to estimate the relative influence of individual, family and social characteristics and of eight types of maltreatment, including physical, emotional and sexual abuse and physical or emotional neglect, on adolescent mental health.

**Findings** Females reported more neglect and emotional abuse, whereas males reported more physical abuse, but no statistically significant difference was found between genders in the prevalence of sexual abuse. Adolescents were classified as having nil (32.6%), one (25.9%), two (20.7%), three (14.5%) or all four (6.3%) maltreatment types. Linear bivariate associations between MTM and depression, anxiety and low self-esteem were observed. After controlling for demographic and family factors, MTM showed significant independent effects. The proportions of the variance explained by the models ranged from 21% to 28%.

**Conclusion** The combined influence of adverse individual and family background factors and of child maltreatment upon mental health in adolescents in Viet Nam is consistent with research in non-Asian countries. Emotional abuse was strongly associated with each health indicator. In Asian communities where child abuse is often construed as severe physical violence, it is important to emphasize the equally pernicious effects of emotional maltreatment.

Une traduction en français de ce résumé figure à la fin de l'article. Al final del artículo se facilita una traducción al español. الترجمة العربية لهذه الخلاصة في نهاية النص الكامل لهذه المقالة.

## Introduction

Research into the prevalence and consequences of child abuse and neglect has been changing in focus in recent years. In the past, most community-based and clinical studies assessed a single type or at most two types of maltreatment. However, it is now becoming clear that particular types of abuse seldom occur alone. A significant proportion of young people questioned in community-based surveys in Australia, Canada, Israel and the United States of America (USA), report having suffered multiple types of maltreatment (MTM) as children.<sup>1–7</sup> When adolescents and adults who have experienced MTM are compared with those who have suffered only a single type of maltreatment, MTM victims usually have substantially more mental health and behavioural problems.<sup>8–11</sup> The evidence supports an additive model of maltreatment effects.<sup>2</sup>

A further significant development in research has been an exploration of the role of the individual, family and social contexts in which victimization occurs.<sup>12</sup> Social ecology models recognize that maltreatment is but one childhood experience among many that can affect mental health later in life. This approach is well illustrated by a recent national survey of children and adolescents in the USA. Turner et al.<sup>11</sup> considered a spectrum of cultural, socioeconomic and family influences on well-being, in addition to specific types of child maltreatment. Hierarchical regression analysis revealed that

background factors contributed significantly to variance in mental health, independently of maltreatment, neglect and other forms of non-victimization trauma and adversity (such as exposure to serious physical illness, accidents or parental substance abuse). A compelling conclusion is that research into statistical linkages between child maltreatment and health may be confounded unless causal factors associated with both are included in multivariate models.<sup>11,12</sup>

These approaches to child maltreatment research have rarely been applied in developing countries. One study in Turkey of 862 school students aged 14–17 years examined potential associations between four forms of abuse and neglect and suicide attempts and self-mutilation.<sup>13</sup> Logistic regression revealed a linear association between each form of maltreatment and both harmful behaviours, but that study did not adjust for social and family influences. In Thailand, a small survey of 202 young adult residents of Bangkok found an association between common mental disorders and background family conditions (low parental education, domestic violence) as well as childhood emotional and sexual abuse, with the latter two factors remaining significantly associated with mental disorders after adjustment for family characteristics.<sup>14</sup>

To date, no descriptive or analytical research into child maltreatment in Viet Nam has been published in peer-reviewed journals. In Asia little research has been conducted on the relative health effects of social contexts and childhood

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adversity, broadly defined. Extrapolation of the insights gained in non-Asian countries is problematic because the prevalence of specific acts of violence, their perpetrators and the social settings in which abuse occurs vary among countries and cultures.<sup>15–18</sup> Indeed, considerable differences appear to exist between Asia and other regions in the frequency of child sexual abuse and intrafamilial or school-based physical abuse.<sup>19–22</sup>

The factors that potentiate child abuse and place children at risk of poor mental health might not be generalizable across cultures. For example, some of the main risk factors for both child abuse and mental distress in children in economically developed nations, such as parental divorce, step-parenting, maternal alcohol and drug abuse and neighbourhood violence,<sup>4,7</sup> are comparatively rare in Asian countries. In addition, researchers in countries with multicultural populations, particularly in North America, often emphasize ethnic and cultural differences,<sup>22,23</sup> yet this source of variation may be less influential in comparatively monoracial societies, such as China, Japan and Viet Nam.

The specific objectives of this study were: (i) to describe the prevalence of child maltreatment among a large sample of Vietnamese adolescents; (ii) to examine the possible cumulative effects of various types of child abuse on depression, anxiety and self-esteem; (iii) to analyse the relative contributions of individual, family and social factors and of child maltreatment to the variation seen in the prevalence of mental health disorders in adolescence; and (iv) to compare our results to recent findings in developed countries.

## Methods

### Study participants

In 2006, we conducted a cross-sectional survey in a convenience sample of eight secondary schools (four lower-level and four higher-level) in two districts (one in urban Hanoi and one in rural Hai Duong province) in the north of Viet Nam. Students in consenting schools were in randomly selected classes. Of the 2737 students from 61 classes eligible to participate, 2591 completed the questionnaire, for a response rate of 94.7%.

### Measures

The survey instrument was developed to ensure face validity in Vietnamese culture and socioeconomic conditions. Questionnaire content and wording were formulated from literature review and qualitative, in-depth interviews with teachers, parents and students, and focus group discussions with students. A quantitative pilot survey of 299 students assessed construct validity and internal consistency.

#### Child maltreatment

We developed four subscales by adapting items from questionnaires used internationally, such as the Revised Conflict Tactics Scale,<sup>24</sup> the Juvenile Victimization Questionnaires,<sup>25</sup> the Childhood Trauma Questionnaire<sup>26</sup> and several other scales used in Australia,<sup>5,27</sup> China<sup>19,20</sup> and South Africa.<sup>28</sup> Item wording reflecting value judgements (e.g. “abused”, “molested”, “victim”, etc.) was avoided in favour of descriptors of specific behaviours such as “kicking”, “yelling at you”, and “exposing their private parts”. The reference period for all items was “when you were growing up”; therefore the estimates comprised events over the respondent’s entire lifetime rather than a recent time period.

A child emotional maltreatment scale included seven items using five response options ranging from “never” to “always” (score range: 0–35; mean score: 11.87; standard deviation, SD: 3.74; Cronbach’s alpha coefficient,  $\alpha$ : 0.81). The child neglect scale consisted of seven items about emotional or physical neglect (response options from “never” to “always”; (score range 0–35; mean score: 9.15; SD: 3.71;  $\alpha$ : 0.78). Child physical maltreatment was assessed with six items (response options from “never” to “always”) (score range: 0–30; mean score: 7.85; SD: 1.95;  $\alpha$ : 0.63). The eight child sexual abuse questions enquired about unwanted contact and non-contact sexual experiences, with 3-point responses of “never”, “once” or “more than once” (score range 0–24; mean score: 9.26; SD: 2.75;  $\alpha$ : 0.75). The child sexual abuse scale had different response options because the *often* to *always* options lacked face validity. The items and raw prevalence data are provided in Appendix A (available at: [http://www.hlth.qut.edu.au/ph/about/staff/dunne/Appendix\\_1\\_for\\_BWHO\\_paper\\_Jan\\_2010\\_Nguyen\\_Dunne\\_Lc.pdf](http://www.hlth.qut.edu.au/ph/about/staff/dunne/Appendix_1_for_BWHO_paper_Jan_2010_Nguyen_Dunne_Lc.pdf)).

### Definitions

The scales in the previous section make it possible to distinguish adolescents who suffer rare or infrequent maltreatment from those who frequently experience multiple and/or single acts. This minimizes the chances that respondents who indicate only one or perhaps a few items will be classified as “abused”. To estimate the prevalence of each type of child maltreatment, respondents who scored at or above the mean on each subscale were classified as having experienced that type of maltreatment.<sup>5,29,30</sup> The mean is used as a cut-off partly to compensate for the number of false positives and false negatives for each form of maltreatment.<sup>5,29</sup> The number of types of child maltreatment suffered was summed for each respondent, with scores on the MTM scale ranging from 0 to 4.

Following questions about emotional, physical and sexual abuse, respondents were asked to name the perpetrators of ostensibly severe acts (threatening to hurt or kill them; beating or hitting them with a fist or objects; forcing them to have sexual intercourse). The lists included adults and peers in the family, school and general community. Respondents were not asked to name the perpetrators of neglect because qualitative interviews in the pilot study revealed that responsibility could rarely be attributed to individuals.

#### Measures of mental health

Respondents completed the 20-item Center for Epidemiological Studies Depression Scale (CES-D),<sup>31</sup> which has been used extensively with adolescents.<sup>19,20,31,32</sup> In the present survey, the CES-D had very good internal consistency ( $\alpha$ : 0.85). The 10-item Rosenberg Self-esteem Scale (RSES)<sup>33</sup> measures global feelings of self-worth or self-regard. Internal consistency in the present study was relatively good ( $\alpha$ : 0.73) and similar to that found internationally.<sup>34</sup> Confirmatory factor analysis of data from 299 students in a pilot survey replicated the four factors of the CES-D<sup>35</sup> and two factors of the RSES<sup>36</sup> in a Vietnamese sample.<sup>37</sup>

An anxiety scale was developed specifically for this study because the researchers felt that the extant scales had low validity when translated to Vietnamese. The new scale included 13

items measuring various anxiety symptoms. Exploratory factor analysis of pilot data yielded three factors, labelled “fears”, “tension” and “worries”, having moderate internal consistency ( $\alpha$ : 0.72, 0.64 and 0.62, respectively).<sup>37</sup> The total score can range from 13 to 39. In the current survey this scale had good internal consistency ( $\alpha$ : 0.79).

### Personal background

The survey instrument included questions on demographics (e.g. region, age, gender, ethnicity, religion and family economic status); family characteristics (e.g. parents' marital status, whom children currently live with, number of siblings, parent education level and occupation, adolescents' perceived parental drug and alcohol problems); educational performance (e.g. self-rated past year academic achievement, and having ever repeated a year); the respondents' general physical health status (having a diagnosed chronic disease, and self-rated health status); body satisfaction; and family environment (e.g. frequent parental quarrelling and fighting, perceived parental relationship quality and the adolescents' usual source of emotional support when help is needed). The full questionnaire in both Vietnamese and English languages is available from the first author of this paper.

### Ethical approval

The research project was approved by Human Research Ethics Committees at the Hanoi School of Public Health and the Queensland University of Technology.

### Statistical analysis

Statistical analyses were stratified by gender. Analyses of variance explored bivariate associations between MTM and mental health. In multivariate models the scores for each type of child maltreatment and for depression, anxiety and self-esteem were entered as continuous variables. Six sequential multiple regression models were tested. Background variables with significant bivariate associations were entered first *en bloc*. Four child maltreatment variables were entered next *en bloc*. To enable comparisons, the model and statistical summary were designed to resemble those reported by Turner et al.<sup>11</sup>.

Table 1. Family environment characteristics for adolescents included in cross-sectional study of MTM in childhood and adolescent mental health, Viet Nam, 2006

	No. of respondents	Percent of sample
<b>Parents' marital status (n = 2588)</b>		
Living together	2347	90.6
Divorced	115	4.4
Separated	29	1.2
Deceased (one or both)	97	3.7
<b>Whom do you talk to when you need help? (n = 2591)</b>		
Father	114	4.4
Mother	447	17.3
Brother/sister	378	14.6
Other relative	53	2.0
Friend	1044	40.3
No one	496	19.1
Others	59	2.3
<b>Perceived happiness of parental relationship (n = 2580)</b>		
Very happy	690	26.7
Happy	1353	52.4
Not sure	418	16.2
Unhappy	93	3.7
Very unhappy	26	1.0
<b>Parental fighting (n = 2572)</b>		
Never	1936	75.1
Rarely	446	17.4
Sometimes	171	6.7
Often	19	0.8
<b>Parental quarrelling (n = 2579)</b>		
Never	767	29.7
Rarely	1093	42.4
Sometimes	641	24.8
Often	78	3.1
<b>Parent drug and/or alcohol problems (n = 2582)</b>		
No	2501	96.8
Yes	81	3.2

MTM, multiple types of maltreatment.

## Results

### Sample characteristics

Of the 2591 respondents aged 12 to 18 years (mean: 15.0 years; SD: 1.47), 52.1% were female. Just over half (51.5%) lived in Hanoi, while 48.5% lived in the predominantly rural Hai Duong province, both in the north of the country. Almost all students (99.1%) identified themselves as members of the Kinh ethnic majority, and 90.7% said they practiced no formal religion. Most shared a similar family structure in that 90.6% had married parents who lived together, while only 5.6% had parents who were divorced

or separated and 3.7% had either one or two deceased parents. The majority (70.1%) had one sibling, 11.5% were only children and 18.4% had two or more siblings.

Aspects of the family environment are summarized in Table 1. Few adolescents said their parent(s) had a problem with alcohol or drugs. More than one in four said their parents quarrelled sometimes or often, while 7.5% reported that parental fighting occurred sometimes or often. Most adolescents rated their parents' relationship as happy (52.4%) or very happy (26.7%). When asked whom they talked to when they “needed help”, 40.3% indicated they

sought friends more often than family members, while nearly 20% said they did not talk to anyone at all.

### Prevalence and co-occurrence

The rates for each maltreatment item answered positively in the questionnaire are shown in Appendix A. Item-by-item prevalence (defined as having ever suffered the maltreatment) varied widely. Nearly all children reported having been “yelled at” and having had someone “try to make them feel guilty,” whereas relatively few reported unwanted sexual acts (less than 5% for most individual items). Using the summative estimates for each subscale (Table 2), males were more likely than females to be classified as experiencing physical abuse as a child, while females reported more emotional abuse and physical or emotional neglect. There was no significant difference between genders in the prevalence of child sexual abuse, including reports of forced intercourse ever by 2.8% of males and 2.7% of females. About two-thirds (67.4%) of the respondents were classified as having suffered at least one form of maltreatment, with one in four having experienced only one type. Substantial proportions reported MTM: 20.7%, two types; 14.5%, three types, and 6.3%, four types.

Adolescents named one or more perpetrators only for ostensibly severe acts. Perpetrators of emotionally abusive threats to hurt or kill the child were reported to be fathers (30.5%), mothers (26.5%), siblings (16.7%) and other relatives such as cousins and aunts (7.7%). Physical violence (kicking, beating or hitting with the fist or objects) was most commonly perpetrated by fathers (43.9%), siblings (21.0%), strangers (19.2%), mothers (18.2%) and neighbours (9.6%). Perpetrators of unwanted sexual penetration were mostly outside of the family; male strangers (29.5%), female strangers (22.3%) and neighbours (14.3%) were named most frequently, followed by brothers (7.2%) and fathers (5.3%).

### MTM and mental health

Bivariate associations between MTM and mental health problems are illustrated in Fig. 1. Analysis of variance revealed statistically significant main effects of MTM on each measure for both females and males. The effect

Table 2. Lifetime prevalence of specific types of maltreatment and of MTM in childhood in cross-sectional study of adolescent mental health, Viet Nam, 2006

	Female (%)	Male (%)	Whole sample (%)
Emotional abuse	42.5	36.3**	39.5
Physical abuse	41.6	54.0***	47.5
Sexual abuse	18.5	21.0	19.7
Neglect	33.4	24.9***	29.3
MTM			
None	33.1	31.5	32.6
One type	24.6	27.5	25.9
Two types	20.5	20.9	20.7
Three types	15.3	13.6	14.5
All four types	6.0	6.5	6.3

\*\* $P < 0.01$ ; \*\*\* $P < 0.001$  ( $\chi^2$  test).

MTM, multiple types of maltreatment.

sizes for MTM on depression were large ( $\eta^2$ : 0.17 for females and 0.19 for males). Moderate effect sizes were observed with anxiety ( $\eta^2$ : 0.10 for both genders) and self-esteem ( $\eta^2$ : 0.08 for females and 0.09 for males).

Tukey's post-hoc comparison of mean depression, anxiety and self-esteem scores across MTM groups revealed statistically significant mean differences ( $P < 0.05$ ) in 83% (20/24) of contrasts, indicating dose-response effects (data not shown).

### Individual, family and social variables

The results of six sequential multiple regression models is summarized in Table 3. For the two models predicting depression, the variables of region (rural), low emotional support at home during childhood, self-rated poor general health and perceived low academic achievement (for males) and (for females) rural region, fathers' low-level occupation, low body satisfaction, low emotional support at home, and low academic achievement showed significance. The addition of four types of child maltreatment increased the fraction of explained variance by 8.8% for males and 7% for females. Emotional maltreatment and neglect were significant independent predictors for both genders. The models explained 28% of depression variance among males and 26% among females.

Anxiety among males was significantly associated with rural region, self-rated poor general health, the presence of a diagnosed chronic disease, dissatisfaction with the body, and

frequent parental quarrelling. Anxiety among females was significantly associated with older age, rural region, fathers' low-level occupation, self-rated poor health status, diagnosed chronic disease, and dissatisfaction with the body. Addition of child maltreatment to the model explained a further 6% of the variance between genders. Child emotional maltreatment and child neglect predicted anxiety for males. For females, the significant maltreatment predictors were child emotional and physical maltreatment. The final models explained 22% (males) and 21% (females) of the variance in anxiety.

Background variables significantly associated with self-esteem for females included rural region, perceived unhappy parental relationship, low body satisfaction, poor self-rated general health, perceived low academic achievement and school punishment in the past year. Self-esteem among males was associated with the same variables, plus mothers' low level of education. Child maltreatment explained a relatively small proportion of the additional variance in self-esteem among males (4.4%) and females (5%). Child emotional maltreatment was again a significant predictor for both genders. These models explained 28% and 23% of the variance among females and males, respectively.

### Discussion

This study is the first to examine the links between child maltreatment and mental health of young people in Viet Nam. The experiences ranged from unpleasant, common acts of conflict

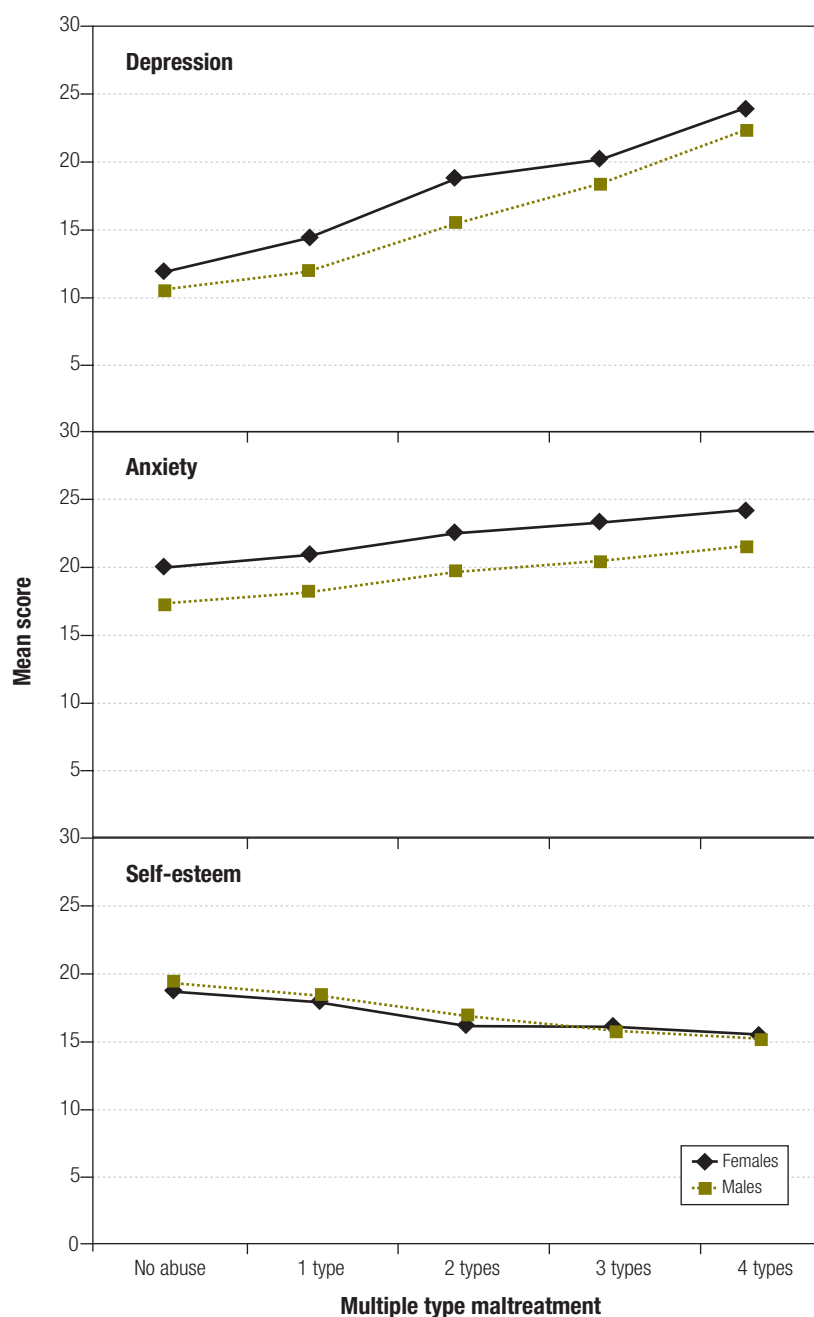


such as being yelled at or spanked, to being insulted, threatened, neglected physically or emotionally, and to the relatively less common experiences of sexual abuse. We have not attempted to draw direct international comparisons of raw prevalence estimates for most of the abusive or neglectful acts, as there are few studies that report directly comparable behaviourally specific estimates for most of the items considered here. However, the findings regarding child sexual abuse warrant comment. In developed, non-Asian countries, estimates of lifetime child sexual abuse experiences among female adolescents are comparatively higher than among males and usually, females report substantially more penetrative sexual abuse.<sup>38</sup> In this Vietnamese sample there were no differences between the genders, either for forced penetration or for the combined child sexual abuse scores, which adds to another finding in south-east Asia (Thailand) of gender equivalence in sexual abuse risk.<sup>14</sup> It is also notable that the prevalence of penetrative abuse of males (2.8%) falls in the middle of the range for developed, non-Asian society survey estimates of 1% to 5%, while the estimate for females (2.7%) falls well below the usual range of 5% to 10%.<sup>38</sup>

This paper extends to a developing country the analysis of the effects of MTM and models the relative contribution to adolescent mental health of maltreatment within the context of broader individual, family and social adversity. The multivariate models explained between 21% and 28% of the variance in depression, anxiety and self-esteem. The findings are consistent with research in Australia<sup>5</sup> and the USA,<sup>11</sup> both in terms of the bivariate dose-response relationships between MTM and mental health and of the proportions of the variance explained. For example, in their population-based survey of 1000 children and adolescents aged 10–17 in the USA, Turner et al.<sup>11</sup> found linear relationships between multiple victimization and other childhood adversities on the one hand and adolescent depression and anger/aggression on the other, with regression models explaining between 20% and 26% of the variance.

This similarity in findings is remarkable because the samples appear to be quite different. In addition to the very substantial economic differences

Fig. 1. MTM in childhood and mental health in adolescents from two northern districts in Viet Nam, 2006



MTM, multiple types of maltreatment.

between affluent non-Asian countries and Viet Nam, the basic demographic profiles of the samples are also dissimilar with differences in ethnic diversity, parental divorce and presence of step-parents, and child-reported parental substance abuse problems. Both the Australian and USA surveys included the wide diversity typically found in samples in these countries; in contrast, the adolescents in northern Viet Nam were very homogenous. Nearly all

(99%) were of the same ethnic group and the great majority (91%) had two parents who were living together. Most lived in small families (82%), as an only child or with one sibling. Notably, these demographic factors often found to be associated with adolescent mental health in developed non-Asian countries<sup>2,11</sup> were not significant predictors in Viet Nam, possibly due to the small number of demographically different adolescents.

Table 3. Results of sequential multiple regression of individual, family and social variables and child maltreatment on adolescent mental health, Viet Nam, 2006

Variable	Male				Female			
	$\beta$	$t$	$R^2$ change	$F$ change	$\beta$	$t$	$R^2$ change	$F$ change
<b>Depression</b>								
<b>Step 1</b>			0.206	11.79***			0.185	11.10***
Rural region	-0.13	-4.03***			-0.11	-3.37**		
Father low-level occupation					0.07	2.16*		
Low emotional support in family	0.08	2.71**						
Self-perception of poor health	0.17	5.60***			0.14	5.15***		
Low body satisfaction					0.15	5.31***		
Perceived low academic achievement	0.11	3.57***			0.09	3.21**		
Repeated class	0.06	2.19*						
<b>Step 2</b>			0.07	24.19***			0.088	32.19***
Sexual abuse	0.04	1.44			0.04	1.28		
Physical abuse	0.03	0.97			0.02	0.58		
Neglect	0.14	4.02***			0.14	3.98***		
Emotional abuse	0.18	4.63***			0.22	6.03***		
<b>Anxiety</b>								
<b>Step 1</b>			0.175	9.60***			0.165	9.65***
Rural region	-0.09	-2.62***			-0.10	-2.95**		
Father low-level occupation					0.07	2.04*		
Parents frequently quarrel	0.12	3.52***						
Chronic disease(s) during childhood	0.13	4.31***			0.09	3.32**		
Self-perception of poor health	0.18	5.94***			0.17	6.08***		
Low body satisfaction	0.07	2.12*			0.13	4.48***		
<b>Step 2</b>			0.062	20.11***			0.059	20.16***
Sexual abuse	0.03	0.85			0.02	0.57		
Physical abuse	0.06	1.73			0.08	2.48*		
Neglect	0.10	2.71**			0.07	1.84		
Emotional abuse	0.18	4.62***			0.18	4.68***		
<b>Self-esteem</b>								
<b>Step 1</b>			0.208	11.91***			0.220	13.77***
Rural region	0.07	2.20*			0.13	4.04***		
Mother low-level education	-0.10	-2.51*						
Perceived unhappy parental relationship	-0.09	-2.38*			-0.08	-2.25*		
Low emotional support in family	-0.09	-3.19**						
Self-perception of poor health	-0.11	-3.73***			-0.11	-3.88***		
Low body satisfaction	-0.17	-5.45***			-0.27	-9.59***		
Perceived low academic achievement	-0.07	-2.39*			-0.11	-3.86***		
Frequent punishment at school	-0.08	-2.54*			-0.06	-2.26*		
<b>Step 2</b>			0.044	14.68***			0.050	18.18***
Sexual abuse	0.00	.09			0.02	0.52		
Physical abuse	-0.04	-1.19			0.03	1.01		
Neglect	-0.06	-1.79			-0.04	-1.08		
Emotional abuse	-0.18	-4.70***			-0.25	-6.79***		

\* $P < 0.05$ ; \*\* $P < 0.01$ ; \*\*\* $P < 0.001$ .

Beyond these elements of sample composition, however, findings regarding other determinants are consistent with those of international studies.<sup>38,39</sup> Family characteristics such as conflict-ridden parental relationships and poor parent-child interactions (as indicated by a child's need to seek emotional sup-

port outside the family) were independent predictors, especially for depression. Also consistent with other research findings<sup>40</sup> is that satisfaction with one's body predicted all three mental health measures, especially among females.

In some Asian societies there is still relatively little awareness of

child maltreatment as a public health problem.<sup>41</sup> For example, research in Hong Kong Special Administrative Region<sup>42,43</sup> and in mainland China<sup>44</sup> has shown that many adults perceive child abuse primarily in terms of very harsh physical assault. Several studies in China have shown that up to 7

in 10 adults believe that child sexual abuse usually involves physical force detectable through clinical examination.<sup>43,44</sup> In this region, there has been relatively little research into emotional maltreatment, although “harsh parenting”, including high demands and strict controls on behaviour, is common.<sup>41,45</sup> The effects of emotional maltreatment

are of particular importance to family and school-based programmes that aim to promote adolescent mental health in Asia. Protecting children from physical harm and sexual violation – while important – must be complemented with efforts to engender stronger emotional support and respect for children’s psychological needs. ■

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## Résumé

### Maltraitance infantile multiple et santé mentale de l’adolescent au Viet Nam

**Objectif** Étudier la prévalence de plusieurs types de maltraitance, les facteurs de confusion potentiels et les associations avec la dépression, l’anxiété et l’estime de soi chez les adolescents au Viet Nam.

**Méthodes** Nous avons mené en 2006 une enquête transversale portant sur 2591 étudiants (âgés de 12 à 18 ans, dont 52,1 % de jeunes filles) appartenant à des classes sélectionnées au hasard dans huit établissements secondaires situés en zone urbaine (Hanoi) ou rurale (Hai Duong) dans le Nord du Viet Nam (taux de réponse : 94,7 %) Nous avons effectué des analyses par régression multiple séquentielles pour estimer les influences relatives des caractéristiques individuelles, familiales et sociale et de huit types de maltraitance, dont les maltraitements physiques, psychologique et sexuelle et les négligences physique et psychologique, sur la santé mentale des adolescents.

**Résultats** Les jeunes filles ont rapporté davantage de négligences et de maltraitements psychologiques, tandis que les garçons signalaient plus de maltraitements physiques, mais on n’a relevé aucune différence statistiquement significative entre les deux sexes dans la prévalence des abus sexuels. Les adolescents

ont été répartis en catégories selon le nombre de types de maltraitance qu’ils avaient subis : aucun (32,6 %), un (25,9 %), deux (20,7 %), trois (14,5 %) ou l’ensemble des quatre types de maltraitance (6,3 %). Nous avons observé des associations bivariées linéaires entre la maltraitance multiple et la dépression, l’anxiété et la faible estime de soi. Après élimination de l’influence des facteurs démographiques et familiaux, nous avons observé des effets significatifs indépendants de la maltraitance multiple. Les pourcentages de la variance expliqués par les modèles allaient de 21 à 28 %.

**Conclusion** L’influence combinée de facteurs négatifs liés aux antécédents individuels ou familiaux et de la maltraitance au cours de l’enfance sur la santé mentale des adolescents vietnamiens est en accord avec les résultats des recherches menées dans des pays non-asiatiques. La maltraitance psychologique était fortement associée à chacun des indicateurs sanitaires. Dans les communautés asiatiques où la maltraitance à l’égard des enfants prend souvent la forme de violences physiques graves, il importe d’insister sur les effets également perniciox de la maltraitance psychologique.

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## Resumen

### Maltrato múltiple de niños y salud mental del adolescente en Viet Nam

**Objetivo** Estudiar la prevalencia de maltrato múltiple (MM), los posibles factores de confusión y su asociación a problemas de depresión, ansiedad y autoestima entre los adolescentes en Viet Nam.

**Métodos** En 2006 llevamos a cabo una encuesta transversal entre 2591 estudiantes (de 12 a 18 años, mujeres el 52.1%) de clases seleccionadas aleatoriamente de ocho escuelas secundarias de zonas urbanas (Hanoi) y rurales (Hai Duong) del norte de Viet Nam (tasa de respuesta: 94,7%). Se realizaron análisis de regresión múltiple secuencial para estimar la influencia relativa de factores individuales, familiares y sociales y de ocho tipos de maltrato, incluidos el maltrato físico, emocional y sexual y el abandono físico o emocional, en la salud mental de los adolescentes.

**Resultados** Las muchachas declararon más abandono y maltrato emocional, mientras que los varones declararon más maltrato físico, pero no se observó ninguna diferencia estadísticamente significativa entre sexos en lo referente a la prevalencia de abuso sexual. Se clasificó a los adolescentes según hubieran sufrido

ninguno (32,6%) o uno (25,9%), dos (20,7%), tres (14,5%) o los cuatro (6,3%) tipos de maltrato. Se observaron asociaciones bifactoriales lineales entre el MM y la depresión, la ansiedad y una baja autoestima. Después de controlar los factores demográficos y familiares, el MM demostró tener efectos independientes importantes. La proporción de la varianza explicada por los modelos se situó entre el 21% y el 28%.

**Conclusión** La influencia de la combinación de factores adversos relacionados con los antecedentes individuales y familiares de maltrato infantil en la salud mental de los adolescentes en Viet Nam concuerda con los resultados de investigaciones realizadas en países no asiáticos. El maltrato emocional estaba estrechamente relacionado con cada uno de los indicadores sanitarios. En las comunidades asiáticas donde el maltrato de niños se suele identificar con casos graves de violencia física, es importante subrayar los efectos igualmente perniciosos del maltrato emocional.

## ملخص

## الأنماط المتعددة لسوء معاملة الأطفال والصحة النفسية للمراهقين في فيتنام

الغرض: فحص انتشار الأنماط المتعددة لسوء المعاملة، والعوامل المحتملة المؤثرة للارتباك، وارتباطها بالاكتئاب والقلق وتقدير الذات بين المراهقين في فيتنام.

الطريقة: أجرى الباحثون في 2006 مسحاً مقطوعياً ضم 2591 تلميذاً (في الفئة العمرية 12 – 18 عاماً، وكانت 52.1% منهم من الإناث) وذلك في ثمان فصول دراسية منتقاة عشوائياً في المدارس الثانوية في منطقة حضرية (هانوي) وفي منطقة ريفية (هاي دونغ) في شمالي فيتنام (وكانت معدل الاستجابة 94.7%). وأجرى تحليل التحوف المتعدد المتابعي لتقدير التأثير النسبي للصفات الفردية والأسرية والمجتمعية، وتأثير ثمانية أنماط من سوء المعاملة، التي تتضمن الانتهاك الجسدي والعاطفي والجنسي، والإهمال الجسدي والعاطفي، على الصحة النفسية للمراهقين.

الموجودات: أبلغت الإناث أكثر من الذكور عن وقوع الإهمال والانتهاك العاطفي، بينما أبلغ الذكور أكثر من الإناث عن وقوع الانتهاك الجسدي، ولكن لم يُكتشف اختلاف يُعَدُّ به إحصائياً بين الجنسين في معدل انتشار

الانتهاك الجنسي. وصُنِّفَ البالغون حسب أنماط سوء المعاملة إلى: لم يتعرضوا لسوء معاملة (32.6%)، وتعرضوا لواحد (25.9%)، واثنان (20.7%)، وثلاثة (14.5%)، وجميع أنماط سوء المعاملة الأربعة (6.3%). ولوحظ وجود ارتباط خطي بين المتغيرين لكل من الأنماط المتعددة لسوء المعاملة، والاكتئاب والقلق ونقص تقدير الذات. وبعد ضبط العوامل الديموغرافية والأسرية، أظهرت الأنماط المتعددة لسوء المعاملة تأثيرات مستقلة يُعَدُّ بها. وتراوحت نسب التفاوت المشروحة بالنماذج بين 21% و 28%.

الاستنتاج: يتسق التأثير المشترك للعوامل الضائرة الفردية والأسرية والأساسية وسوء معاملة الطفل على الصحة النفسية للمراهقين في فيتنام مع البحوث التي أجريت في البلدان غير الآسيوية. وارتبط الانتهاك العاطفي ارتباطاً قوياً بكل مؤشر صحي. ومن المهم في المجتمعات الآسيوية، حيث يُفسَّر انتهاك الأطفال بأنه العنف الجسدي الشديد، التأكيد على التأثيرات المدمرة لسوء المعاملة العاطفية.

## References

- Finkelhor D, Ormrod RK, Turner HA. Poly-victimisation: A neglected component in child victimisation. *Child Abuse Negl* 2007;31:7-26. PMID:17224181 doi:10.1016/j.chiabu.2006.06.008
- Arata CM, Langhinrichsen-Rohling J, Bowers D, O'Brien N. Differential correlates of multi-type maltreatment among urban youth. *Child Abuse Negl* 2007;31:393-415. PMID:17412420 doi:10.1016/j.chiabu.2006.09.006
- Benbenishty R, Zeira A, Astor RA. Children's reports of emotional, physical and sexual maltreatment by educational staff in Israel. *Child Abuse Negl* 2002;26:763-82. PMID:12363330 doi:10.1016/S0145-2134(02)00350-2
- Dong M, Anda RF, Dube SR, Giles WH, Felitti VJ. The relationship of exposure to childhood sexual abuse to other forms of abuse, neglect, and household dysfunction during childhood. *Child Abuse Negl* 2003;27:625-39. PMID:12818611 doi:10.1016/S0145-2134(03)00105-4
- Higgins DJ, McCabe MP. Relationships between different types of maltreatment during childhood and adjustment in adulthood. *Child Maltreat* 2000;5:261-72. PMID:11232272 doi:10.1177/107755950005003006
- Paivio SC, Cramer KM. Factor structure and reliability of the Childhood Trauma Questionnaire in a Canadian undergraduate student sample. *Child Abuse Negl* 2004;28:889-904. PMID:15350772 doi:10.1016/j.chiabu.2004.01.011
- Stevens TN, Ruggiero KJ, Kilpatrick DG, Resnick HS, Saunders BE. Variables differentiating singly and multiply victimized youth: Results from the national survey of adolescents and implications for secondary prevention. *Child Maltreat* 2005;10:211-23. PMID:15983106 doi:10.1177/1077559505274675
- Edwards VJ, Holden GW, Felitti VJ, Anda RF. Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: results from the adverse childhood experiences study. *Am J Psychiatry* 2003;160:1453-60. PMID:12900308 doi:10.1176/appi.ajp.160.8.1453
- Holt MK, Finkelhor D, Kantor GK. Multiple victimisation experiences of urban elementary school students: Associations with psychological functioning and academic performance. *Child Abuse Negl* 2007;31:503-15. PMID:17537507 doi:10.1016/j.chiabu.2006.12.006
- Rikhye K, Tyrka AR, Kelly MM, Gagne GG, Mello AF, Mello MF. Interplay between childhood maltreatment, parental bonding, and gender effects: Impact on quality of life. *Child Abuse Negl* 2008;32:19-34. PMID:18082260 doi:10.1016/j.chiabu.2007.04.012
- Turner HA, Finkelhor D, Ormrod R. The effect of lifetime victimization on the mental health of children and adolescents. *Soc Sci Med* 2006;62:13-27. PMID:16002198 doi:10.1016/j.socscimed.2005.05.030
- Dong M, Anda RF, Felitti VJ, Dube SR, Williamson DF, Thompson TJ, et al. The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. *Child Abuse Negl* 2004;28:771-84. PMID:15261471 doi:10.1016/j.chiabu.2004.01.008
- Zoroglu SS, Tuzun U, Sar V, Tutkun H, Savas HA, Ozturk M, et al. Suicide attempt and self-mutilation among Turkish high school students in relation with abuse, neglect and dissociation. *Psychiatry Clin Neurosci* 2003;57:119-26. PMID:12519464 doi:10.1046/j.1440-1819.2003.01088.x
- Jirapramukpitak T, Prince M, Harpman T. The experience of abuse and mental health in the young Thai population. *Soc Psychiatr Psychiatr Epidemiol* 2005;40:955-63. doi:10.1007/s00127-005-0983-1
- Dunne MP, Zolotor AJ, Runyan DK, Andrevia-Miller I, Choo WY, Dunne SK, et al. ISPCAN child abuse screening tools retrospective version (ICAST-R): Delphi study and field testing in seven countries. *Child Abuse Negl* 2009;33:815-25. doi:10.1016/j.chiabu.2009.09.005 PMID:19853301
- Pinheiro PS. *World report on violence against children*. Geneva: United Nations Children's Fund; 2006.
- Runyan DK, Wattam C, Ikeda R, Hassan F, Ramiro L. Child abuse and neglect by parents and other caregivers. In: Krug EG, Dahlberg JA, Mercy AB, Lozano R, eds. *World report on violence and health*. Geneva: World Health Organization; 2002. pp. 57-86.
- Straus MA, Savage SA. Neglectful behaviour by parents in the life history of university students in 17 countries and its relation to violence against dating partners. *Child Maltreat* 2005;10:124-35. PMID:15798008 doi:10.1177/1077559505275507
- Chen J, Dunne MP, Han P. Child sexual abuse in China: a study of adolescents in four provinces. *Child Abuse Negl* 2004;28:1171-86. PMID:15567022 doi:10.1016/j.chiabu.2004.07.003
- Chen J, Dunne MP, Han P. Child sexual abuse in Henan province, China: associations with sadness, suicidality, and risk behaviors among adolescent girls. *J Adolesc Health* 2006;38:544-9. PMID:16635765 doi:10.1016/j.jadohealth.2005.04.001
- Lansford JE, Chang L, Dodge KA, Malone PS, Oburu P, Palmerus K, et al. Physical discipline and children's adjustment: cultural normativeness as a moderator. *Child Dev* 2005;76:1234-46. PMID:16274437 doi:10.1111/j.1467-8624.2005.00847.x
- Elliott K, Urquiza A. Ethnicity, culture and child maltreatment. *J Soc Issues* 2006;62:787-809. doi:10.1111/j.1540-4560.2006.00487.x
- Meston CM, Heiman JR, Trapnell PD, Carlin AS. Ethnicity, desirable responding, and self-reports of abuse: a comparison of European and Asian-ancestry undergraduates. *J Consult Clin Psychol* 1999;67:139-44. PMID:10028218 doi:10.1037/0022-006X.67.1.139



24. Straus MA, Boney-McCoy S, Sugarman DB. The Revised Conflict Tactics Scales (CTS2): development and preliminary psychometric data. *J Fam Issues* 1996;17:283-316. PMID:8885984
25. Hamby SL, Finkelhor D. *The Juvenile Victimization Questionnaires (JVQ): administration and scoring manual*. Durham, NH: Crimes Against Children Research Center; 2001.
26. Bernstein DP, Stein JA, Newcomb MD, Walker E, Pogge D, Ahluvalia T, et al. Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse Negl* 2003;27:169-90. PMID:12615092 doi:10.1016/S0145-2134(02)00541-0
27. Dunne MP, Purdie DM, Cook MD, Boyle FM, Najman JM. Is child sexual abuse declining? Evidence from a population-based survey of men and women in Australia. *Child Abuse Negl* 2003;27:141-52. PMID:12615090 doi:10.1016/S0145-2134(02)00539-2
28. Madu SN, Peltzer K. Child Abuse among high school students in the Northern Province of South Africa 1998. Pretoria: South African Data Archive; 1999.
29. Clemmons JC, DiLillo D, Martinez IG, DeGue S, Jeffcott M. Co-occurring forms of child maltreatment and adult adjustment reported by Latina college students. *Child Abuse Negl* 2003;27:751-67. PMID:14627077 doi:10.1016/S0145-2134(03)00112-1
30. Varia R, Abidin RR, Dass P. Perceptions of abuse: effects on adult psychological and social adjustment. *Child Abuse Negl* 1996;20:511-26. PMID:8800526 doi:10.1016/0145-2134(96)00033-6
31. Lam TH, Stewart SM, Yip PSF, Leung GM, Ho LM, Ho SY, et al. Suicidality and cultural values among Hong Kong adolescents. *Soc Sci Med* 2004;58:487-98. PMID:14652046 doi:10.1016/S0277-9536(03)00242-9
32. Radloff LS. The use of the Center for Epidemiologic Studies Depression Scale in adolescents and young adults. *J Youth Adolesc* 1991;20:149-66. doi:10.1007/BF01537606
33. Rosenberg M. *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press; 1965.
34. Miyamoto RH, Hishinuma ES, Nishimura ST, Nahulu LB, Andrade NN, Goebert DA. Variation in self-esteem among adolescents in an Asian/Pacific-Islander sample. *Pers Individ Dif* 2000;29:13-25. doi:10.1016/S0191-8869(99)00171-3
35. Radloff LS. The CES-D scale: a self-report depression scale for research in the general population. *Appl Psychol Meas* 1977;1:385-401. doi:10.1177/014662167700100306
36. Greenberger E, Chen C, Dmitrieva J, Farruggia SP. Item-wording and the dimensionality of the Rosenberg Self-esteem Scale: do they matter? *Pers Individ Dif* 2003;35:1241-54. doi:10.1016/S0191-8869(02)00331-8
37. Nguyen HT, Le AV, Dunne MP. Validating measures of depression and anxiety in a community-based sample of adolescents. *Vietnam J Public Health* 2007;7:26-31.
38. Gilbert R, Widom CS, Browne K, Fergusson D, Webb E, Janson S. Burden and consequences of child maltreatment in high income countries. *Lancet* 2009;373:68-81. PMID:19056114 doi:10.1016/S0140-6736(08)61706-7
39. Patel V, Flisher AJ, Nikapota A, Malhotra S. Promoting child and adolescent mental health in low and middle income countries. *J Child Psychol Psychiatry* 2008;49:313-34. PMID:18093112 doi:10.1111/j.1469-7610.2007.01824.x
40. Siegel JM, Yancey AK, Aneshensel CS, Schuler R. Body image, perceived pubertal timing, and adolescent mental health. *J Adolesc Health* 1999;25:155-65. PMID:10447043 doi:10.1016/S1054-139X(98)00160-8
41. Dunne MP, Chen JQ, Choo WY. The evolving evidence base for child protection in Chinese societies. *Asia Pac J Public Health* 2008;20:267-76. PMID:19124321
42. Lau JT, Liu JL, Cheung JC, Yu A, Wong CK. Prevalence and correlates of physical abuse in Hong Kong Chinese adolescents: a population based approach. *Child Abuse Negl* 1999;23:549-57. PMID:10391512 doi:10.1016/S0145-2134(99)00029-0
43. Tang CSK, Yan EC. Intention to participate in child sexual abuse prevention programs: a study of Chinese adults in Hong Kong. *Child Abuse Negl* 2004;28:1187-97. PMID:15567023 doi:10.1016/j.chiabu.2004.06.008
44. Chen J, Dunne MP, Han P. Prevention of child sexual abuse in China: knowledge, attitudes and communication practices of parents of elementary school children. *Child Abuse Negl* 2007;31:747-55. PMID:17628670 doi:10.1016/j.chiabu.2006.12.013
45. Nelson DA, Hart CH, Yang C, Olsen J. Aversive parenting in China: associations with child physical and relational aggression. *Child Dev* 2006;77:554-72. PMID:16686788 doi:10.1111/j.1467-8624.2006.00890.x