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The Universality of Childhood Emotional Abuse: A Meta-Analysis of Worldwide Prevalence

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This comprehensive meta-analysis combined prevalence figures of child emotional abuse reported in 29 studies, including 46 independent samples with a total of 7,082,279 participants. The overall estimated prevalence was 3/1,000 for studies using informants and 363/1,000 for studies using self-report measures of child emotional abuse. Procedural factors seem to exert a greater influence on the prevalence of childhood emotional abuse than sample characteristics and definitional issues, without fully explaining the vast variation of prevalence rates reported in individual studies. We conclude that child emotional abuse is a universal problem affecting the lives of millions of children all over the world, which is in sharp contrast with the United Nation's Convention on the Rights of the Child.

KEYWORDS cultural issues, emotional abuse, epidemiology, meta-analysis

INTRODUCTION

Until recently, limited attention has been paid to childhood emotional abuse as a social problem. Research on childhood emotional abuse has lagged

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behind research on childhood physical and sexual abuse (Egeland, 2009; Wright, 2007), partially due to the fact that emotional abuse has not been recognized as a distinct form of child maltreatment until the last few decades (Egeland, 2009; Glaser, 2002; Wright, 2007). Recent research has shown not only that emotional abuse is a widespread phenomenon, but also that it has deleterious effects on children's development (Iwaniec, Larkin, & Higgins, 2006). Childhood emotional abuse has been found to be associated with a variety of adverse outcomes, such as depressive symptoms and feelings of hopelessness (Courtney, Kushwaha, & Johnson, 2008); lower self-esteem; less satisfaction with life and a diminished sense of social support (Festinger & Baker, 2010); insecure adult attachment style (Riggs & Kaminski, 2010); neurophysiological changes in the stress response systems (Carpenter et al., 2009; Yates, 2007); reduced prefrontal cortex volume (Van Harmelen et al., 2010); bipolar disorder (Etain et al., 2010); symptoms of borderline personality disorder, anxiety disorder, oppositional defiant disorder, conduct disorder, and delinquent behaviors (Gratz, Litzman, Tull, Reynolds, & Lejuez, 2011); and externalizing behavior, diminished resiliency, and ego undercontrol (Manly, Kim, Rogosch, & Cicchetti, 2001).

It is unclear, however, how often childhood emotional abuse occurs. Prevalence rates in primary self-report studies range from 0.07% (Raiha & Soma, 1997) to 93.0% (Meston, Heiman, Trapnell, & Carlin, 1999). This vast variation underlines the need for this meta-analysis, which aims to provide a synthesized prevalence rate of emotional abuse and to search for determinants of the variation in prevalence rates such as definitional issues, procedural factors, and sample characteristics.

Definitional Issues

In addition to the late recognition of emotional abuse as a separate form of abuse, another reason for the late startup of childhood emotional abuse research is the fact that research was hindered by definitional issues (Egeland, 2009; Glaser, 2002). The nature of emotional abuse is different from the nature of other types of abuse. Whereas physical and sexual abuse might be limited to an isolated incident, emotional abuse implies a sustained pattern of maladaptive interaction with the caregiver (Glaser, 2002). Emotional abuse has been defined by the Consultation on Child Abuse Prevention (World Health Organization [WHO], 1999) as including:

the failure to provide a developmentally appropriate, supportive environment, including the availability of a primary attachment figure, so that the child can develop a stable and full range of emotional and social competencies commensurate with her or his personal potentials and in the context of the society in which the child dwells. There may also be acts towards the child that cause or have a high probability of causing harm to the child's health or physical, mental, spiritual, moral or

social development. These acts must be reasonably within the control of the parent or person in a relationship of responsibility, trust or power. Acts include restriction of movement, patterns of belittling, denigrating, scapegoating, threatening, scaring, discriminating, ridiculing or other non-physical forms of hostile or rejecting treatment. (p. 15)

Even though the first part of the WHO definition might better fit emotional neglect than emotional abuse, such a comprehensive definition is a veritable challenge for the assessment of emotional abuse for research purposes. This difficulty is reflected in the various measurements of childhood emotional abuse that were used in the set of studies included in our meta-analysis, ranging from the use of a single question about verbal abuse (e.g., “How often did a parent or adult living in your home swear at you, insult you, or put you down?” used by Young, Hansen, Gibson, & Ryan, 2006) to the use of more comprehensive instruments (e.g., the 14-item Child Maltreatment Questionnaire used by Madu, 2001). One might expect that more comprehensive operational definitions of emotional abuse yield higher prevalence rates compared to narrower ones, which might explain some of the variability of prevalence rates. In our meta-analysis, we investigated the influence of studies’ operational definitions of emotional abuse on the prevalence rate by comparing the studies’ operational definitions to the definition used in the third National Incidence Study (NIS-3) carried out in the United States (Sedlak, 2001; see Appendix), permitting a comparison with a standard that reflects the WHO definition of emotional abuse rather well. The inclusion of physical constraint as a means of punishment in the NIS-3 definition of emotional abuse is representative of the “restriction of movement” part of the WHO definition.

Procedural Factors

The reported prevalence of childhood emotional abuse might be influenced by whether self-report measures or reports by professionals are used to establish emotional abuse. Meta-analyses of other types of childhood abuse have shown that the self-reported prevalence is by far higher than the prevalence reported by informants (Stoltenborgh, Bakermans-Kranenburg, Van IJzendoorn, & Alink, in press; Stoltenborgh, Van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011). The number of questions used to establish emotional abuse might also influence the reported prevalence. Multiple questions could lead to a higher reported prevalence than a single question because they might include more specific information on emotional abuse and more aspects of emotional abuse compared to a single question. In this meta-analysis, the number of questions used to investigate childhood emotional abuse ranged from one (e.g., Jirapramukpitak, Prince, & Harpham, 2005) to 20 (Khamis, 2000). The sampling method might also influence the reported prevalence of emotional abuse, with no clear indications

in the emotional abuse literature about the nature of such an influence. Clues as to what to expect come from research of other types of abuse: A meta-analysis on child sexual abuse revealed that the combined prevalence for male convenience samples was approximately twice the combined prevalence for male randomized samples (Stoltenborgh et al., 2011). This difference was even more pronounced in a meta-analysis on childhood physical neglect (Stoltenborgh, Bakermans-Kranenburg, & Van IJzendoorn, 2012). Other areas of research have also shown that convenience sampling can lead to biased results compared to randomized sampling (Barel, Van IJzendoorn, Sagi-Schwartz, & Bakermans-Kranenburg, 2010).

Sample Characteristics

Gender does not seem to have a major influence on the reported prevalence (Iwaniec et al., 2006), although some studies found that girls are more often the victims of childhood emotional abuse than boys (e.g., Scher, Forde, McQuaid, & Stein, 2004). Further, the geographical origin of samples might influence the prevalence of childhood emotional abuse. Not much cross-cultural research has been carried out in the field of emotional abuse, so the basis for hypotheses about possible differences in the occurrence of emotional abuse in various countries or continents is weak. Differences in cultural values and family systems might be underlying differences in the occurrence of childhood emotional abuse (Meston et al., 1999). A broad cultural distinction can be made between collectivism, found in many Eastern areas, and individualism, found in many Western areas (Hofstede, 2001). In collectivist cultures, an emphasis is placed on social and familial harmony and on interdependence. This might result in the more frequent use by parents of emotional discipline strategies such as emphasizing the embarrassment felt by other family members when rules are broken or the induction of guilt and shame. In more extreme forms, these discipline strategies could be regarded as emotionally abusive. On the other hand, the collectivist value of interdependence could prevent people from disclosing any type of abuse with the goal of preventing shame to the family (Elliott & Urquiza, 2006).

This Study

This meta-analysis aims to provide an estimate of the prevalence of childhood emotional abuse by integrating prevalence figures from 29 publications, covering reports on the prevalence of childhood emotional abuse in 46 samples, including 7,082,279 participants. We attempt to unravel the substantial variation in prevalence figures reported in primary studies by analyzing the effects of definitional issues, procedural factors, and sample characteristics on combined prevalence rates. We expected combined rates

to be similar for women and men, and we expected rates to be higher in studies using convenience samples compared to randomized samples. With respect to the definitional issues, procedural factors, and sample characteristics, analyses were exploratory due to the absence of expectations derived from existing literature.

METHOD

Literature Search

Three search methods were used to identify eligible studies published between January 1980 and January 2008. First, we searched the electronic databases PubMed, Online Contents, Picarta, ERIC, PsychInfo, and Web of Science for empirical articles using the terms *prevalence*, *incidence*, or both, combined with one of the following terms: (*child**) (*emotional maltreatment*), (*emotional*) *abuse*, and (*emotional*) *victimization*. Studies that were found with the search terms (*child**) (*sexual/physical/emotional maltreatment*), (*sexual/physical/emotional*) *abuse*, and *victimization* were also included when the prevalence of emotional abuse was reported. Second, we electronically searched the specialized journals *Child Abuse and Neglect* and *Child Maltreatment* with the same terms just mentioned. Third, the references of the papers, dissertations, and book chapters that we found were searched for relevant studies. Studies were included if the prevalence of emotional abuse was reported (a) in terms of proportions at the child level (excluding studies only reporting estimates at the family level), (b) for victims under the age of 18 years, (c) in nonclinical samples, and (d) if sufficient data were provided to determine this proportion as well as the sample size.

If different publications reported on the same sample or on overlapping samples, the publication providing the maximum information was included in the meta-analysis. Thus, the independence of samples and the inclusion of every participant only once in the meta-analysis were ascertained. When possible and necessary, the coding form for the study was supplemented with information from the other—excluded—publication(s) on the same sample. When a publication reported the prevalence of emotional abuse separately for more than one sample (e.g., for male and female participants or for participants of different ethnicities), these subsamples were treated as independent studies. This procedure yielded 29 publications, published from 1996 to 2008, covering reports on the prevalence of emotional abuse in 46 samples, including 7,082,279 participants.

Data Extraction

The *definition* of emotional abuse used by studies was compared to the definition used in the NIS-3 (Sedlak, 2001; see Appendix), resulting in two

categories (stricter than or according to NIS vs. broader than NIS). *Procedural moderators* included the following variables: the type of evidence used to determine emotional abuse (self-report—scored also when parents reported on the abuse experiences of their children—vs. informant, based on clinical judgment by professionals), the period of prevalence for which respondents were asked to report their emotional abuse experiences (0–12, 0–18, limited period up to 1 year; each participant was included in a single category), the type of instrument used for the study (face-to-face interview, telephone interview, paper-and-pencil questionnaire, or computerized questionnaire), whether the instrument used was validated or not, the sampling procedure (convenience, modified randomized, or randomized), and the continuous variables sample size, response rate, number of questions used to establish emotional abuse, and year of publication (see Stoltenborgh et al., 2011, for a similar coding system).

Sample characteristics included gender (male, female, mixed), the continent from which the sample originated (Africa, Asia, Australia and New Zealand, Europe, North America, South America), the predominant ethnicity of the sample for the subset of studies originating from North America (African American, Asian, Caucasian, or Hispanic), the level of economic development of the sample's country of origin (high-resource or low-resource according to the World Economic Outlook Database; International Monetary Fund, 2010), the type of sample (cohorts, college samples, high school samples, samples originating from a specific occupational group, and populations), and in the case of self-report, who the respondent was (adults vs. children). Agreement between the coders for moderators and outcome variables was satisfactory (mean kappa for categorical variables .74, percentage agreement on average 90%; mean intraclass correlations for continuous variables .92).

Meta-Analytic Procedures

The meta-analysis was performed using the Comprehensive Meta-Analysis (CMA) program (Borenstein, Rothstein, & Cohen, 2005). For each study, the proportion of emotionally abused children was transformed into a logit event rate effect size and the corresponding standard error was calculated (Lipsey & Wilson, 2001). After the analyses, logits were retransformed into proportions to facilitate interpretation of the results. The outcome was the proportion of children emotionally abused. There were no outlying effect sizes. One sample size within the set of self-report studies was an outlying value (Young et al., 2006). Combined effect size analyses were carried out both including the original sample size and with a winsorized sample size, with similar results. Therefore, results are reported with the original sample size.

Significance tests and moderator analyses were performed through random effects models (Borenstein, Hedges, & Rothstein, 2007). Random effects

models allow for the possibility that there are random differences between studies that are associated with variations in procedures, measures, or settings that go beyond subject-level sampling error and thus point to different study populations (Hedges & Olkin, 1985; Lipsey & Wilson, 2001). To test the homogeneity of the overall set and specific sets of effect sizes, we computed Q -statistics (Borenstein et al., 2005).

In addition, we computed 95% confidence intervals (CIs), again based on random estimates, around the point estimate of each set of effect sizes. Q statistics and p values were also computed to assess differences between combined effect sizes for specific subsets of studies grouped by moderators. Again, the more conservative random effects model tests were used. Contrasts were only tested if at least two of the subsets consisted of at least four studies (Bakermans-Kranenburg, van IJzendoorn, & Juffer, 2003). For continuous moderators, Fisher's Z scores were used in weighted least squares metaregression analyses. In addition, we performed a cumulative meta-analysis (Borenstein, Hedges, Higgins, & Rothstein, 2009) to document the change in effect sizes across time. In a cumulative meta-analysis, each analysis in the sequence incorporates one additional study so that publication time is accounted for.

We used the "trim and fill" method (Duval & Tweedie, 2000a, 2000b) to calculate the effect of potential publication bias on the outcome of the meta-analysis. Using this method, a funnel plot is constructed of each study's effect size against its precision (usually plotted as $1/SE$). These plots should be shaped like a funnel if no publication bias is present. However, because smaller studies and studies with nonsignificant results are less likely to be published, studies in the bottom left-hand corner are often omitted (Duval & Tweedie, 2000b; Sutton, Duval, Tweedie, Abrams, & Jones, 2000). We used the logit of the reported prevalence as effect size. The k right-most studies considered to be symmetrically unmatched were trimmed. The trimmed studies are replaced and their missing counterparts imputed or "filled" as mirror images of the trimmed outcomes. This then allows for the computation of adjusted overall effect sizes and confidence intervals (Gilbody, Song, Eastwood, & Sutton, 2000; Sutton et al., 2000).

RESULTS

Combined Prevalence

The combined prevalence of emotional abuse for the total set of studies ($k = 46$, $N = 7,082,279$) was 26.7% (95% CI [14.4%, 44.2%], $p < .05$). The set of studies was heterogeneous, $Q(45) = 145,674.67$, $p < .01$. We conducted a moderator analysis contrasting self-report studies with studies based on informants, which was significant, $Q(1) = 75.17$, $p < .01$. The combined prevalence for informant studies was 0.3% (95% CI [0.2%, 0.7%], $p < .01$;

$k = 4$; $N = 7,005,693$), $Q(3) = 1,654.26$, $p < .01$. The combined prevalence for the set of self-report studies was 36.3% (95% CI [28.1%, 45.4%], $p < .01$, $k = 42$, $N = 76,586$), $Q(41) = 11,680.06$, $p < .01$. As the CIs of self-report studies and studies based on informants did not overlap, these sets of studies should be considered to represent separate populations of studies and thus were treated as such. Within the set of informant studies, moderator analyses were not possible due to the small numbers of studies. Therefore, we report the results of the moderator analyses for the set of self-report studies only.

Duvall and Tweedie's (2000a, 2000b) trim and fill method revealed no asymmetry in the funnel plots for self-report studies, implying that publication bias is unlikely.

Definitional Issues and Procedural Factors

The results of all moderator analyses are reported in Table 1. Studies using a definition stricter than or according to NIS-3 (Sedlak, 2001) and studies using a definition that was broader than the NIS-3 definition yielded similar prevalence rates for emotional abuse. No significant results were found for the type of instrument that was used, be it face-to-face interviews, telephone interviews, paper-and-pencil questionnaires, or computer questionnaires. The reported prevalence was not significantly influenced by whether studies used validated or nonvalidated instruments. The sampling procedure significantly influenced the reported prevalence of emotional abuse. Pairwise post-hoc analyses revealed that studies using a fully randomized sample yielded lower prevalence rates (19.0%; 95% CI [9.8%, 33.4%], $k = 10$, $n = 11,584$) than studies that used modified randomized samples (52.9%; 95% CI [31.1, 73.7%], $k = 7$, $n = 4,967$) or convenience samples (40.3%; 95% CI [29.3%, 52.3%], $k = 25$, $n = 60,035$; see Figure 1a).

Meta-regression analyses revealed that neither the number of questions nor the sample size exerted a significant influence on the reported emotional abuse prevalence (slopes = 0.10 and 0.00; $z = 1.57$ and -1.12 ; $p = .12$ and $.26$, respectively). A higher response rate was related to a higher reported prevalence (slope = 0.05, $z = 3.73$, $p < .01$). The more recently the study was published, the lower the reported emotional abuse prevalence (slope = -0.27 , $z = 4.13$, $p < .01$). A cumulative meta-analysis confirmed this association between year of publication and effect size (see Table 2).

Sample Characteristics

Gender was not a significant moderator, indicating that emotional abuse occurs at approximately the same rate for boys and girls (Table 1). No significant results were found for the geographical origin of the sample or for the predominant ethnicity of the North American samples, nor for the level of economic development of the country of origin of samples, indicating that

TABLE 1 Results of Moderator Analyses for Self-Reported Emotional Abuse: Number of Studies and Participants, and Combined Prevalence Including 95% Confidence Intervals (CI)

	<i>k</i> ^a	<i>n</i>	Combined Prevalence (%)	95% CI	<i>Q</i> Heterogeneity	Contrast <i>Q</i> ^b
Overall estimate	42	76,586	36.3**	[28.1, 45.4]	11,680.06**	
Sample characteristics						
Gender						0.27
Female	18	15,485	38.4	[26.1, 52.4]	2,625.06**	
Male	14	52,575	36.3	[23.0, 52.1]	3,155.58**	
Mixed	10	8,526	32.7	[18.4, 51.1]	2,802.84**	
Continent						1.27
Africa	4	1,821	46.7**	[22.2, 73.0]	311.60**	
Asia	7	3,586	41.6**	[23.3, 62.5]	856.31**	
Australia	1	1,296	11.3	[1.3, 54.5]	0.00	
Europe	6	8,072	29.2**	[14.1, 50.8]	1,945.93**	
North America	24	61,811	36.5**	[26.6, 47.6]	4,962.01**	
Ethnicity (North America only)						2.39
African American	4	1,768	45.0	[24.7, 67.0]	15.63**	
Asian	2	470	90.7**	[72.4, 97.3]	3.10	
Caucasian	16	59,227	26.8**	[18.8, 36.6]	3,411.25**	
Hispanic	1	112	27.0	[5.5, 70.3]	0.00	
Economic development						0.98
High-resource	32	69,414	34.0**	[25.7, 43.5]	7,496.79**	
Low-resource	10	7,172	43.9	[27.6, 61.5]	1,885.99**	
Type of sample						16.15**
Cohort	6	4,406	45.9	[24.6, 68.9]	764.23**	
College	7	2,149	72.4*	[51.9, 86.5]	456.55**	
High school	6	3,106	40.6	[20.7, 64.2]	825.78**	
Occupational group	1	41,482	15.4	[1.7, 65.3]	0.00	
Population	18	15,392	23.6**	[15.1, 34.9]	2,946.08**	
Respondent						1.56
Adult	30	67,590	31.9**	[23.9, 41.0]	5,968.06**	
Child	11	7,996	43.2	[28.4, 59.3]	2,455.03**	
Procedural moderators						0.13
Definition						
Broader than NIS	4	4,417	34.6	[34.6, 63.9]	1,322.34**	
NIS or stricter	33	77,066	40.1	[30.5, 50.5]	9,116.42**	
Period of prevalence ^c						n/a
Limited period up to 1 year	2	375	62.1	[26.7, 88.0]	0.27	
0–12	2	2,869	56.0	[22.3, 84.9]	0.00	
0–18	34	69,543	35.0**	[27.2, 43.6]	7,333.24**	
Type of instrument						2.38
Interview face-to-face	5	3,040	44.2	[20.6, 70.7]	921.21**	
Interview telephone	6	3,741	28.9	[12.8, 53.0]	499.58**	

(Continued)

TABLE 1 (Continued)

	<i>k</i> ^a	<i>n</i>	Combined Prevalence (%)	95% CI	<i>Q</i> Heterogeneity	Contrast <i>Q</i> ^b
Questionnaire	23	62,540	40.1	[28.4, 53.0]	7,428.19**	
Questionnaire computer	4	5,738	21.8*	[7.4, 49.2]	1,151.68**	
Instrument validated						2.32
No	18	67,837	28.7**	[18.5, 41.6]	8,966.57**	
Yes	23	8,392	42.2	[30.5, 54.8]	1,702.06**	
Sampling procedure						7.80*
Convenience	25	60,035	40.3	[29.3, 52.3]	6,263.92**	
Modified random	7	4,967	52.9	[31.1, 73.7]	1,487.49**	
Random	10	11,584	19.0**	[9.8, 33.4]	1,863.59**	

Note. NIS = National Incidence Study.

^aDifferences in totals of *k* are due to the exclusion from the pertinent analysis of studies with missing values. ^bSubgroups with *k* < 4 or 'other' categories are excluded from contrasts; ^call participants are included in a single category.

p* < .05. *p* < .01.

the prevalence of emotional abuse does not seem to depend on where the sample comes from nor on the predominant ethnicity of the sample.

The combined prevalence significantly differed between the various types of samples. Pairwise post-hoc contrasts indicated that the emotional abuse prevalence reported for college samples (72.4%; 95% CI [51.9%, 86.5%], *k* = 7, *n* = 2,149) was significantly higher than the prevalence reported for population samples (23.6%; 95% CI [15.1%, 34.9%], *k* = 18, *n* = 15,392), which is shown in Figure 1b). The reported prevalence of emotional abuse was not influenced by whether the respondents were adults or children.

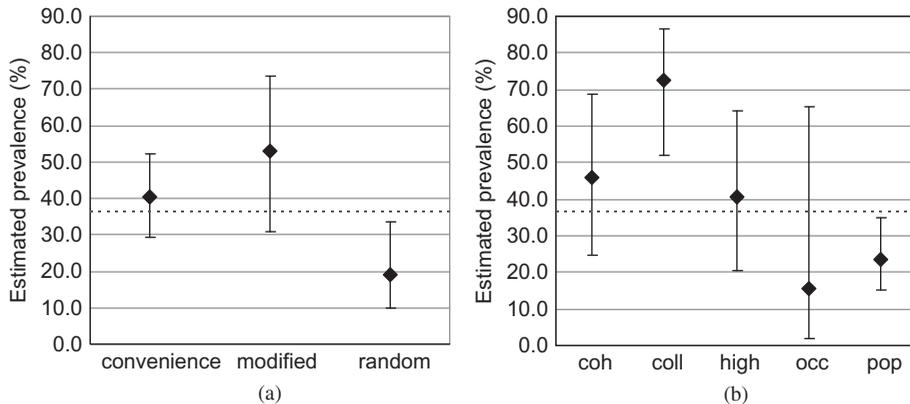


FIGURE 1 The influence on estimated prevalence of (a) the sampling procedure and (b) the type of sample. The dotted lines represent the overall mean prevalence. Note. Coh = cohorts; coll = college samples; high = high school samples; occ = samples originating from a specific occupational group; pop = population samples.

TABLE 2 Statistics and Forest Plot for Self-Report Studies Participating in the Cumulative Meta-Analysis

Study Name	Gender	Cumulative Prevalence (%)	95% CI		Forest Plot
			Low	High	
Tang (1996)	Female	63.4	57.1	69.3	
Tang (1996)	Male	62.4	57.4	67.2	
Straus et al. (1998)	Mixed	74.3	46.1	90.7	
Benedict et al. (1999)	Female	69.4	44.2	86.7	
Meston et al. (1999) Asian	Female	74.1	53.2	87.8	
Meston et al. (1999) Asian	Male	78.5	60.6	89.7	
Meston et al. (1999) non-Asian	Female	77.4	62.9	87.3	
Meston et al. (1999) non-Asian	Male	77.8	65.1	86.8	
Duncan (2000)	Mixed	69.9	52.6	82.9	
Khamis (2000)	Mixed	64.3	40.8	82.5	
Thompson et al. (2000)	Female	61.7	39.8	79.7	
Brooker et al. (2001)	Female	61.3	44.1	76.0	
Brooker et al. (2001)	Male	60.9	46.7	73.4	
Madu (2001)	Female	61.5	48.2	73.3	
Madu (2001)	Male	62.3	49.7	73.5	
Corliss et al. (2002)	Female	60.8	49.0	71.4	
Corliss et al. (2002)	Male	59.3	48.4	69.4	
Afifi et al. (2003)	Mixed	57.0	46.1	67.3	
Clemmons et al. (2003)	Female	55.4	44.8	65.6	
Madu (2003)	Mixed	53.9	43.5	63.9	
Chapman et al. (2004)	Female	51.5	39.6	63.3	
Chapman et al. (2004)	Male	48.5	35.9	61.3	
Duran et al. (2004)	Female	48.8	36.5	61.2	
Menard et al. (2004) African American	Female	48.6	36.9	60.5	
Menard et al. (2004) African American	Male	48.6	37.3	60.1	
Menard et al. (2004) Caucasian	Female	48.2	37.2	59.3	
Menard et al. (2004) Caucasian	Male	48.0	37.3	58.9	
Scher et al. (2004)	Female	46.5	36.1	57.2	
Scher et al. (2004)	Male	44.7	34.5	55.3	
Akyuz et al. (2005)	Female	43.8	34.0	54.1	
Finkelhor et al. (2005)	Female	42.3	32.7	52.5	
Finkelhor et al. (2005)	Male	40.8	31.5	50.9	
Jirapramukpitak et al. (2005)	Female	40.5	31.4	50.3	
Jirapramukpitak et al. (2005)	Male	40.3	31.4	50.0	
May-Chahal & Cawson (2005)	Female	38.9	30.1	48.5	
May-Chahal & Cawson (2005)	Male	37.1	28.5	46.7	
Cohen et al. (2006) Australia	Mixed	36.2	27.7	45.5	
Cohen et al. (2006) Europe	Mixed	35.5	27.3	44.7	
Cohen et al. (2006) United States	Mixed	34.9	26.8	43.8	
Stephenson et al. (2006)	Mixed	35.8	27.5	45.1	
Young et al. (2006)	Male	35.2	27.7	43.6	
Aberle et al. (2007)	Mixed	36.3	28.1	45.4	
Total		36.3	28.1	45.4	

DISCUSSION

In the current meta-analysis, the self-reported prevalence of childhood emotional abuse was estimated at 36.3% or 363 per 1,000 children, whereas the prevalence based on informant studies was 0.3%, or 3 per 1,000 children. The absence of gender differences and differences across continents indicates that childhood emotional abuse is a universal phenomenon. Procedural factors, specifically the type of sample, the sampling procedure, the year of publication, and the response rate, seem to exert a greater influence on the self-reported prevalence of childhood emotional abuse than sample

characteristics and definitional issues, however, without fully explaining the vast variation of prevalence rates reported in individual studies, as is indicated by the persistent heterogeneity in the subsets of moderator analyses.

Informant Versus Self-Report

The difference in prevalence of childhood emotional abuse between studies using informants (3 children per 1,000) and studies using self-report (363 children per 1,000) is striking. Large differences have also been found in meta-analyses on the global prevalence of other forms of child abuse (Stoltenborgh et al., in press; Stoltenborgh et al., 2011). The large gap can be explained by the different levels of the proverbial iceberg of child abuse that informant and self-report studies report on. The five levels of the iceberg are (a) those children who are reported to the police as having been chronically abused or neglected; (b) those children who are reported to child protection agencies and agreed as being in need of protection; (c) those children who are reported to child protection agencies by other professionals such as doctors and health personnel and by the general public; (d) abused or neglected children who are recognized as such by neighbors or relatives but are not brought to the attention of a professional agency; and (e) abused or neglected children who have not been recognized as such by anyone (Creighton, 2002).

The informant studies included in our meta-analysis reported on the first to the third level, whereas the self-report studies mainly reported on the fifth level. It seems safe to say that self-report studies reveal more of the iceberg than informant studies can, even though the experiences of some victims of child abuse might have been reported to professionals. However, it should also be recognized that the retrospective recollection used in many self-report studies, as compared to reports to the police or child protection agencies, induces more uncertainty about whether reported experiences actually took place (Goldman & Padayachi, 2000) and could lead to an overestimation of the prevalence of child abuse. Moreover, in self-report measures, including measures used by the studies included in this meta-analysis, isolated incidents are often labeled as abuse, whereas informant reports are based on a sustained pattern of maladaptive interaction with the caregiver.

Procedural Factors

The combined self-reported prevalence of emotional abuse was lower in randomized samples than in convenience samples, and lower in population samples than in college samples, reflecting influences of sampling method and type of sample that have also been demonstrated in meta-analyses on other types of child maltreatment (Stoltenborgh et al., 2012; Stoltenborgh et al., in press; Stoltenborgh et al., 2011). Both the randomization of samples

and the use of population samples are regarded as characteristics of sound research methodology and we might therefore conclude that the lower range prevalence rates of childhood emotional abuse are more representative of the prevalence rate in the population. However, in the current meta-analysis, all randomized samples were population samples, which might have led to a “double hazard” for low prevalence rates in these sets of studies.

The negative association of year of publication with prevalence rate can be seen as illustrative of the winner’s curse. This phenomenon originated from economics but is also used in genetic studies to describe the somewhat inflated effect sizes in first studies investigating the effect of a specific gene compared to the real (replicated) effect size of the gene (Ioannidis, 2003; Li & He, 2006). The cumulative meta-analysis that we carried out with studies placed in order of publication year clearly shows that the cumulative prevalence of childhood emotional abuse diminishes (although remains substantial) over time. The first studies on emotional abuse might have elicited scientific interest in emotional abuse because of the high prevalence rates reported in these studies. Over time, the instruments used to establish emotional abuse might have been fine-tuned, leading to lower prevalence rates and, as a result, to a decrease of the cumulative prevalence over time.

Definitional Issues

Surprisingly and contrary to our expectations, studies using broad operational definitions of emotional abuse yielded a similar combined self-reported prevalence as studies using narrower definitions. The narrower definitions that were used by studies included in our meta-analysis mainly pertained to verbal abuse, which is only one aspect of childhood emotional abuse. In addition to verbal abuse, the broader definitions included several other aspects of emotional abuse, such as close confinement. Some studies using broader definitions included forms of abuse that we would consider emotional neglect rather than emotional abuse (i.e., neglect of children when they are sick [Afifi, El-Lawindi, Ahmed, & Basily, 2003] or inadequate nurturance and affection [Khamis, 2000]). It is possible that verbal abuse is the most prevalent facet of emotional abuse, always occurring when other and rarer forms of emotional abuse take place. This might explain the absence of differences in the prevalence of emotional abuse between studies using more inclusive and more exclusive operational definitions. In that case, verbal abuse could serve as an indicator of childhood emotional abuse as a whole, making the recognition and study of emotional abuse substantially easier.

We recommend testing this hypothesis in future research by using an instrument with multiple behaviorally specific questions that target all the aspects of childhood emotional abuse that are included in a comprehensive definition, allowing an investigation of the cooccurrence of different aspects.

If indeed it proves to be sufficient to use verbal abuse as an indicator of emotional abuse, this could also explain the lack of association of the prevalence with the number of questions used to establish childhood emotional abuse as in our meta-analysis the average number of questions used with broad definitions was higher than the number of questions used with narrower definitions.

Sample Characteristics

The self-reported prevalence of childhood emotional abuse was influenced by neither the continent of origin of the samples nor the predominant ethnicity of samples from North America, indicating that emotional abuse is a global problem. It is also possible that the within-continent variability is greater than the between-continent variability (Sebre et al., 2004; Stoltenborgh et al., 2012; Stoltenborgh et al., in press), making it impossible to detect differences between continents. The meta-analytical heterogeneity of the prevalence of emotional abuse within the continents points in this direction, as do the results of cross-cultural studies in other domains of child development (e.g., Van IJzendoorn & Kroonenberg, 1988).

Interestingly, the prevalence of childhood emotional abuse reported for the two Asian American samples was more than twice the combined prevalence of the seven Asian samples. In light of this finding, one could speculate that the prevalence we found in Asia is an underestimation. Emotional discipline strategies, in extreme forms leading to emotional abuse, might be frequently used in the collectivist Asian culture but might not be reported as abuse by the victims because the cultural normativeness of these strategies prevents victims from perceiving them as abusive (Lansford et al., 2010). Moreover, even when children perceive themselves as victims of abuse, they might not report the abuse because of the shame inflicted on the family by such a report. Children of Asian immigrants who are brought up in North America might perceive their experiences with harsh emotional discipline as emotional abuse because of the influence of the prevailing, more individualistic Western culture. This could underlie the rather high prevalence we found for Asian American samples. Of course this conclusion is highly speculative because our meta-analysis included only two Asian American samples originating from the same publication (Meston et al., 1999).

For firmer conclusions about the existence or absence of cross-cultural differences in the prevalence of childhood emotional abuse, we need more studies from other parts of the world than North America and more North American studies examining cross-ethnic differences. It would be helpful if these studies used similar designs, procedures, and instruments to assure the comparability between prevalence figures. The plea for a European prevalence study, made in the report on the second national Dutch prevalence study of Child Abuse and Neglect (Alink, Van IJzendoorn,

Bakermans-Kranenburg, Vogels, & Euser, 2011), might be extended to a worldwide prevalence study according to NIS methodology. Within such a research program, care should be taken to disentangle effects of culture, socioeconomic status, and ethnicity (Elliott & Urquiza, 2006).

CONCLUSION

This meta-analysis shows that childhood emotional abuse is a universal problem touching the lives of far too many children all over the world. This is in sharp contrast with the United Nations Convention on the Rights of the Child (1989), in which the 194 ratifying countries (as of November 2009) explicitly stated that they shall take all appropriate legislative, administrative, social, and educational measures, either nationally, bilaterally, or multilaterally, to protect children from any type of abuse. The high prevalence of emotional abuse is particularly striking because emotional abuse seems to have pervasive negative effects on various aspects of children's neural, emotional, and psychological development, with continuing consequences for later life.

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APPENDIX Third National Incidence Study (NIS-3) Definitions of Child Emotional Abuse^a

Specific Form of Maltreatment (NIS-3 Code)	Acts/Omissions Included
Close Confinement: Tying/Binding (05.1)	Tortuous restriction of movement as a means of punishment or control, such as by tying a child's arms or legs together or binding child to a chair, bed, or other object, or a responsible person permitting another to do so. Does not include generally accepted practices of care, such as swaddling infants or use of safety harnesses on toddlers.
Close Confinement: Other (05.2)	Confinement of child to an enclosed area (such as a closet) as a means of punishment. The category does not include minor forms of confinement such as requiring that the child stay in his/her room or "grounding" him/her for a few days.
Verbal or Emotional Assault (06.0)	Verbally assaultive or abusive treatment which reflects a systematic pattern of belittling, denigrating, scapegoating, or other nonphysical forms of overtly hostile or rejecting treatment as well as excessive nonphysical discipline. Also includes verbal threats of other forms of maltreatment, such as abandonment, suicide, beating, sexual assault, etc. This category is not used if this maltreatment occurred in conjunction with abuse in any of categories 01.0 through 05.2, ^b or category 07.0, unless acts and adverse effects occurred which were separate and distinct from those in other categories.
Other or Unknown Abuse (07.0)	Forms of overtly punitive, exploitative, or abusive treatment other than above, or unspecified abusive treatment. Category includes attempted or potential physical or sexual assault or exploitation where actual physical contact was not indicated to have occurred, intentional withholding of food, shelter, sleep, or other necessities as a form of punishment, overworking or economic exploitation of child (e.g., excessive responsibilities or excessive demands for income-producing work by child); and unspecified abusive treatment or assaultive/exploitative treatment other than that referred to in categories 01 through 06. ^b

^aExtracted from Sedlak (2001). ^b01.0 to 04.0: All forms of sexual and physical abuse.