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## Independent Study Projects

### **Title**

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# **I had the perfect childhood: minimization and denial on the Childhood Trauma Questionnaire**

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## **INTRODUCTION**

Childhood trauma impacts multiple consequential outcomes ranging from cognitive performance and functioning to the risk of developing substance abuse and depression (Brietzke 2012, Anda 2006). Varying methods have been developed to assess for childhood trauma, one of which is self reports. One such self-report is the Childhood Trauma Questionnaire (CTQ), which was developed in order to provide a standardized, validated instrument for assessing respondents' recall of childhood abuse and neglect (Bernstein 1994). The most recent version contains 28 items and asks respondents to rate each item on a 5 point Likert scale from "never true" to "very often true". Its 28 questions assess 5 subsets of maltreatment: emotional abuse, emotional neglect, sexual abuse, physical abuse, and physical neglect (Bernstein 2003). The CTQ has undergone extensive testing and validation in various clinical and general populations and has been used in numerous studies (Burgermeister 2007).

In addition to questions assaying 5 types of trauma, the CTQ also contains a 3 item subset of questions which purports to assess minimization and denial (MD). These questions include the items "there was nothing I wanted to change about my family", "I had the perfect childhood", and "I had the best family in the world". As with the other 25 CTQ items, respondents choose from a 5-point Likert scale from "never true" to "very often true" regarding these items. Unique to the MD subset, however, is its dichotomous scoring: the respondent's raw score (1-5) is

converted to a score of 1 if the respondent chooses 5 (“very often true”) and 0 if the respondent chooses 1-4. This scoring method is meant to capture a respondent’s tendency to give unrealistically positive responses (Bernstein 1998). An alternate scoring strategy for the MD subscale has been proposed by Gerdner, who suggested that the three MD items may be scored continuously (like the other subscales), forming a subscale he called “Idealization of Upbringing (IU)” (Gerdner 2009). In their examination of this model the IU and MD subscales negatively correlated with all other subscales, with stronger correlation for IU than MD. These findings indicate that the IU subscale may be a better indicator of impression management and self-deception than the dichotomous scoring system.

In terms of construct validity, the MD subscale has been shown to correlate with several well-validated scales of social desirability. These scales, which include the Marlowe Crowne Social Desirability Scale (Crowne 1960) and the Balanced Inventory of Desirable Responding (BIDR) (Paulhus 1988), measure a respondent’s bias to depict themselves as socially “normal”, minimizing undesirable traits and exaggerating those that seem desirable. More specifically, the BIDR measures two related constructs, impression management and self-deception, and the MD subscale correlates strongly with both of these aspects of the BIDR (Bernstein, 1998). As such, elevation of the MD scores may be an indication of other invalid responses by the same respondent; this tendency may invalidate their other responses, and may suggest omission of that person’s CTQ data from studies utilizing the CTQ.

Interestingly—and without clear rationale or empirical validation—the majority of studies that use the CTQ exclude the 3 MD items from both analyses and discussion. Though this omission is typically unjustified, a variety of reasons for this “minimization of minimization” may exist: 1) the meaning of the MD subscale is poorly understood; 2) this exclusion has become “routine practice” in reporting; or 3) the MD subscale creates statistical “messiness”, and may question the veracity of some of the results. Regardless of the reasons, there is almost no data to support either inclusion or exclusion of the MD items from analyses of the CTQ, an important research question given the abovementioned consequences of early trauma.

The goal of this study, then, is to further investigate the properties of the Minimization/Denial (MD) subset of the Childhood Trauma Questionnaire (CTQ). Specifically, this project will seek to 1) determine the incidence of MD in a variety of different samples and 2)

examine correlations between the MD subscale and the 5 trauma and neglect subscales of the CTQ. Based on the few prior reports that exist, we hypothesize that we will find a significant incidence of MD, and further, that it's correlations will warrant both further study and inclusion in reports that use the CTQ.

## METHOD

### *Design and Participants*

Principal investigators with large samples of published work utilizing the 28-item version of the CTQ were contacted by telephone and email. Following approval by individual institutional review boards and by the institutional review board of the University of California, San Diego, these groups were asked to send their original, item-level CTQ results along with any demographic information and other measures (including diagnostic measures) available for their study population.

Table 1. Demographic Characteristics (n = 19,652)\*

Variable	Categories	N	%
<b>Gender (N=17822)</b>	Male	6678	37.5
	Female	11144	62.5
<b>Age (N=17887)</b>	Mean (SD)	38.8 (15.4)	15.4
<b>Population (N=19042)</b>	Clinical	6131	32.2
	Community	12911	67.8
<b>Language (N=19652)</b>	English	8636	43.9
	German	7557	38.5
	Swedish	1026	5.2
	Korean	163	0.8
	Dutch	488	2.5
	Turkish	1301	6.6
	Norwegian	481	2.4

\*numbers in subcategories differ due to varying availability of data in subgroups

Twenty-one principal investigators submitted CTQ data for a total of 19,652 subjects. Subjects were categorized as having been selected from the general population or from a psychiatric treatment population. Both populations were large and linguistically diverse; the CTQ has been validated in many populations and has shown good internal consistency for every subscale except physical neglect (Bernstein 2003, Scher 2001). Demographic information collected included gender, age, and the language in which the CTQ was administered. Demographic characteristics are summarized in Table 1. Other measures available for certain subsets of patients included demographic information including religion, occupation, and education, as well as certain psychiatric measures (i.e. scores on the Beck Depression Index (BDI), the Patient Health Questionnaire for Depression and Anxiety (the PHQ-4), the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I)).

### ***Statistical Analyses***

Collected data was compiled in SPSS version 20 for Windows. CTQ subscales were calculated and scored according to the CTQ manual (Bernstein 1998). Reverse-scored CTQ items were recoded as necessary to ensure that all data was in the same format. To ensure data uniformity and accuracy, coding was confirmed by direct communication with collaborators and by comparing CTQ item scale correlations to published standards for the CTQ (Bernstein 2003). The published scoring method was also used to score the severity of childhood trauma as reported in Table 2 and the Minimization/Denial Subscale as reported in Table 3 (Bernstein 1998). Also reported in Table 3 are the average and standard deviation of the MD scale scored continuously.

Correlations between CTQ item scales were calculated using point-biserial Pearson correlations with a two-tailed test of significance. All p values were less than 0.005 (Table 4). Pair-wise exclusion of cases was used to handle missing cases so as to maximize the amount of data available for analysis.

We also calculated correlations between numbers of patients classified as having positive scores on the MD subscale and patients classified as coming from the clinical population (Table 5). This correlation was calculated three times using different cutoffs for classifying patients as

having positive MD scores. We calculated the variance accounted for by the correlation by squaring the correlation (Marill 2004).

## RESULTS

### *Demographic Characteristics*

The mean age of subjects included in this study was 39 years, and the majority were female (62.5%) (Table 1). The majority of subjects were drawn from community based samples (67.8%), which included university students, patients in primary care practices, and random community samples. Clinical samples, which made up 32.2% of the participants, were drawn from both outpatient and inpatient psychiatric treatment populations. The greatest portion of subjects completed the CTQ in English (43.9%), followed by German (38.5%). Other languages were represented by a smaller number of subjects, including Turkish (6.6%); Swedish (5.2%); Dutch (2.5%); Norwegian (2.4%); and Korean (0.8%).

### *Trauma History*

A significant percentage of study subjects reported severe childhood trauma (Table 2); out of all subjects 11.6% reported severe emotional abuse, 9.2% reported severe physical abuse, 9.8% reported severe sexual abuse, 13.6% reported severe emotional neglect, and 9.8% reported severe physical neglect. Clinical populations reported a higher incidence of childhood abuse in every category: 36.1% of the clinical population reported severe trauma on at least one CTQ subscale, compared to 20.4% of the community population and 25.9% of the overall sample. The abuse and neglect subscales were highly correlated with each other (Table 4) and negatively correlated with the Minimization/Denial Subscale, though to different degrees.

Table 2. Types and Severity of Childhood Trauma

Population	Severity	Emotional Abuse	Physical Abuse	Sexual Abuse	Emotional Neglect	Physical Neglect	Total CTQ
All Subjects		N=18652	N=18791	N=18628	N=18611	N=18570	N=17852
	None	62.6	73.5	74	50.1	60.7	53.7

Low	18.1	10.5	7.5	26.7	17	25.9
Moderate	7.6	6.7	8.7	9.6	12.5	12.4
Severe	11.6	9.2	9.8	13.6	9.8	7.9
<b>Clinical</b>	N=5730	N=5876	N=5814	N=5797	N=5730	N=5429
None	50.3	70.8	70.5	34.8	50.1	40.8
Low	20.5	9.4	8.5	28	19.7	28.8
Moderate	10.1	7.8	9.6	13.2	16.6	17.7
Severe	19.1	12	11.4	24	13.6	12.7
<b>Community</b>	N=12227	N=12312	N=12213	N=12211	N=12233	N=11834
None	69.3	75.6	75.6	58.2	66.6	60.6
Low	16.9	11	7.2	26.1	15.6	24.5
Moderate	6.3	6.1	8.3	7.7	10.3	9.6
Severe	7.4	7.2	9	8	7.5	5.3

### ***Minimization and Denial***

In the overall sample 61.9% of respondents received a score of 0 and 7.5% received a score of 3 on the Minimization/Denial (MD) Subscale of the CTQ (Table 3). Interestingly, the incidence of MD was lower in the clinical sample: 72% of respondents received a score of 0 and 4.4% received a score of 3. In the community sample the incidence of MD was higher than in the clinical sample, with 57.6% receiving a score of 0 and 8.9% receiving a score of 3. MD was negatively correlated with the abuse and neglect subscales of the CTQ (Table 4).

We also calculated the correlations between MD and the population of the subject. We used three different cutoff scores to classify a patient as positive for MD (Table 5) and used the clinical population as the test group. The cutoff scores used were  $>2$ ,  $>1$ , and  $>0$ . For each of the cutoff scores there was a negative correlation between the variables, with a more negative correlation for more inclusive cutoff scores. The percent of the variance attributable to the correlation was calculated and was 0.59% for a cutoff of  $>2$ , 1.19% for a cutoff of  $>1$ , and 1.80% for a cutoff of  $>0$ . All p values were  $<0.01$ .

Table 3, Minimization and Denial (MD) Frequencies

	All Subjects	Clinical	Community
<b>MD scores, Dichotomous %(n)</b>			
MD score=0	61.9 (10732)	72 (3677)	57.6 (6952)
1	18 (3124)	14.7 (751)	19.4 (2345)
2	12.5 (2173)	8.9 (456)	14.1 (1700)
3	7.5 (1307)	4.4 (224)	8.9 (1080)
<b>MD scores, Continuous (n=17336)</b>			
Average* (SD)	9.5 (3.4)	8.5 (3.4)	9.9 (3.3)

Frequency of MD, using two scoring systems (see methods). \*Out of 15.

Table 4, CTQ Subscale Correlations\*

		CTQ	EA	PA	SA	EN	PN
All Subjects							
	Total CTQ Score	-					
	Emotional Abuse	.869	-				
	Physical Abuse	.769	.662	-			
	Sexual Abuse	.674	.505	.476	-		
	Emotional Neglect	.814	.633	.448	.331	-	
	Physical Neglect	.742	.520	.462	.330	.651	-
	Minimization and Denial	-.394	-.339	-.215	-.170	-.459	-.282
Clinical							
	Total CTQ Score	-					
	Emotional Abuse	.873	-				
	Physical Abuse	.773	.643	-			
	Sexual Abuse	.695	.526	.469	-		
	Emotional Neglect	.819	.646	.473	.365	-	
	Physical Neglect	.772	.559	.522	.395	.655	-
	Minimization and Denial	-.355	-.328	-.177	-.141	-.446	-.237
Community							
	Total CTQ Score	-					
	Emotional Abuse	.853	-				
	Physical Abuse	.768	.675	-			
	Sexual Abuse	.674	.496	.486	-		
	Emotional Neglect	.789	.574	.411	.302	-	
	Physical Neglect	.699	.451	.401	.278	.631	-
	Minimization and Denial	-.399	-.335	-.228	-.178	-.452	-.286

\*All p values <0.01

Table 5, MD and Population Correlations

MD Cutoff	Clinical %(N)	Correlation	Variance Accounted For*
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>2	4.4 (224)	-0.077	0.59%
>1	13.3 (680)	-0.109	1.19%
>0	28.0 (1431)	-0.134	1.80%

All p values <0.01. \* Portion of the variance in one variable that may be accounted for by the other. See text for further discussion.

## DISCUSSION

The dual purposes of this study were 1) to determine the incidence of minimization and denial (MD)—a subscale of the Childhood Trauma Questionnaire (CTQ)—in a large and varied sample, and 2) to examine correlations between the MD subscale and the other subscales of the CTQ. We found the incidence of MD in the community sample to be 8.9% and 4.4% in the clinical sample. Our results showed that the maltreatment subscales of the CTQ were positively correlated with each other and negatively correlated with the MD scale. We also examined the correlation between high MD scores and population, and found a small but significant association between these variables.

As would be predicted by a myriad of other studies correlating childhood trauma with psychiatric outcomes (Brietzke 2012), our clinical sample had a higher incidence of abuse and neglect on all five subscales of the CTQ than our community sample. As discussed in the literature (Hardt 2004), the lower incidence of reported maltreatment in this group may suggest conscious or unconscious impression management on the part of respondents, who may be motivated by shame or memory suppression. The incidence of reported maltreatment in this group was higher than in the community sample in each of the five abuse and neglect subscales of the CTQ and in the CTQ as a whole: 12.7% of the clinical sample were classified as severely maltreated compared to 5.3% of the community sample.

The incidence of MD in the community sample (when defined as an MD score of 3) was 8.9%, which is comparable to prior studies using similar, smaller samples (Häuser 2011, Bernstein 1998). The clinical sample had a lower incidence of MD (4.4%) which likewise is comparable to prior studies using similar sample groups (Bernstein 1998). The use of an MD score of 3 as the cutoff for defining MD is based on prior studies having reported MD using this cutoff score (Gerdner 2009, Bernstein 1998). There is little or no evidence for choosing this

score as the cutoff, and some authors (Gerdner 2009) have suggested alternate methods of scoring.

The maltreatment subscales of the CTQ were significantly positively correlated with each other in both the clinical and the community samples, and the MD subscale was significantly negatively correlated with each of the maltreatment subscales in both samples (Table 4). Though the magnitudes of some correlations were low, all were statistically significant; furthermore, correlations were similar in both of the sample groups and were comparable to previous studies validating the CTQ in diverse populations (Bernstein 2003, Gerdner 2009, Kim 2011).

In order to better understand the difference in the incidence of MD between the clinical and community groups we calculated correlations between MD and the group to which the subject was assigned (Table 5). As there is no clear and well validated MD score to use as a cutoff to define a patient as having MD, we calculated correlations using three different cutoff scores ( $>2$ ,  $>1$ , and  $>0$ ). The clinical population was used as the test group; this decision was arbitrary but was double checked by calculating the same correlations using the community population as the test group. In these calculations (not shown) the correlations were the exact inverse of those using the clinical population, and the variance accounted for by the correlations were the same.

The negative correlations between MD and the clinical population reported in Table 5 are a reflection of the lower incidence of MD in the clinical sample, as described above and reported in Table 3. By squaring the correlation we calculated the percent of the variance in one variable accounted for by the other. This percentage varied from 0.59% (using the more restrictive cutoff to define MD) to 1.80% (using the less restrictive cutoff), and all p values were  $<0.01$ . This finding indicates that MD and clinical status are negatively associated and that the association is weak but statistically significant.

This study provides support for prior studies that have shown an increased incidence of reported childhood maltreatment amongst clinical populations. One explanation for this observation is that there is more childhood trauma in clinical populations and that childhood trauma leads to future clinical status. While this explanation is well-validated by existing literature, the role of minimization and denial as a possible contributing factor has not been as

well studied. Our study indicates that minimization and denial is a small but statistically significant factor contributing to clinical status.

The results of this study must be considered in light of certain limitations. A small number of data sets that were collected relied on unpublished, non-validated translations of the CTQ. In addition, the varying inclusion criteria and sample populations of the collected data sets make it difficult to generalize our findings to any selective population. Our sample populations were biased in favor of North American and European populations and languages. Further studies examining MD incidence in specific groups of subjects will help extend our findings.

## REFERENCES

1. Anda, Robert F., et al. "The enduring effects of abuse and related adverse experiences in childhood." *European archives of psychiatry and clinical neuroscience* 256.3 (2006): 174-186.
2. Bernstein, David P., et al. "Development and validation of a brief screening version of the Childhood Trauma Questionnaire." *Child abuse & neglect* 27.2 (2003): 169-190.
3. Bernstein DP, Fink L. Childhood Trauma Questionnaire: A retrospective self-report manual. San Antonio, TX: The Psychological Corporation, 1998.
4. Bernstein, David P., et al. "Validity of the Childhood Trauma Questionnaire in an adolescent psychiatric population." *Journal of the American Academy of Child & Adolescent Psychiatry* 36.3 (1997): 340-348.
5. Bernstein, David P., et al. "Initial reliability and validity of a new retrospective measure of child abuse and neglect." *The American Journal of Psychiatry; The American Journal of Psychiatry* (1994).
6. Brietzke, Elisa, et al. "Impact of childhood stress on psychopathology." *Revista Brasileira de Psiquiatria* 34.4 (2012): 480-488.
7. Burgermeister, Diane. "Childhood adversity: a review of measurement instruments." *Journal of Nursing Measurement* 15.3 (2007): 163-176.
8. Crowne, Douglas P., and David Marlowe. "A new scale of social desirability independent of psychopathology." *Journal of Consulting Psychology; Journal of Consulting Psychology* 24.4 (1960): 349.
9. Felitti, Vincent J., et al. "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults." *American journal of preventive medicine* 14.4 (1998): 245-258.
10. Gerdner, Arne, and Christer Allgulander. "Psychometric properties of the Swedish version of the childhood trauma questionnaire-short form (CTQ-SF)." *Nordic journal of psychiatry* 63.2 (2009): 160-170.

11. Hardt, Jochen, and Michael Rutter. "Validity of adult retrospective reports of adverse childhood experiences: review of the evidence." *Journal of Child Psychology and Psychiatry* 45.2 (2004): 260-273.
12. Häuser, Winfried, et al. "Maltreatment in childhood and adolescence: results from a survey of a representative sample of the German population." *Deutsches Ärzteblatt international* 108.17 (2011): 287.
13. Kim, Daeho, et al. "Reliability and Validity of the Korean Version of the Childhood Trauma Questionnaire-Short Form for Psychiatric Outpatients." *Psychiatry investigation* 8.4 (2011): 305-311.
14. Marill, Keith A. "Advanced statistics: linear regression, part I: simple linear regression." *Academic emergency medicine* 11.1 (2004): 87-93.
15. Meehl, Paul E. "Bootstraps taxometrics: Solving the classification problem in psychopathology." *American Psychologist* 50.4 (1995): 266.
16. Meehl, Paul E., and Leslie J. Yonce. "Taxometric analysis: I. Detecting taxonicity with two quantitative indicators using means above and below a sliding cut (MAMBAC procedure)." *Psychological Reports; Psychological Reports* (1994).
17. Paulhus, D. L. "Balanced inventory of desirable responding (BIDR)." *Acceptance and Commitment Therapy. Measures Package* (1988): 41.
18. Scher, Christine D., et al. "The childhood trauma questionnaire in a community sample: psychometric properties and normative data." *Journal of traumatic stress* 14.4 (2001): 843-857.
19. Uziel, Liad. "Look at me, I'm happy and creative: The effect of impression management on behavior in social presence." *Personality and Social Psychology Bulletin* 36.12 (2010): 1591-1602.
20. Villano, Cherie L., et al. "Psychometric utility of the Childhood Trauma Questionnaire with female street-based sex workers." *Journal of trauma & dissociation* 5.3 (2004): 33-41.