

The Association between BDSM and Childhood Trauma

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TEOLOGI**

Subject: Psychology	
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Title: The Association between BDSM and Childhood Trauma	
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Abstract: <i>Introduction:</i> BDSM has long been pathologized and stigmatized in society, which can be harmful to practitioner's self-image and feeling of self. Practising BDSM, also known as Bondage & Discipline (BD), Dominance and Submission (DS) and Sadism and Masochism (SM), have been speculated to stem from childhood trauma. Results from previous studies have had varying results, with some demonstrating a positive association between certain childhood traumas and BDSM, and others finding no associations between the two. The present study aims to add additional information regarding which direction these associations go in, if there are any. Previous studies have found mixed results, perhaps partly because of the way trauma and BDSM have been defined. <i>Method:</i> A large population-based sample of 9,416 women and men was used in this study. BDSM was measured with questions regarding frequency of practise and enjoyment, and separately for submission and domination. Further an overall BDSM score was calculated by summing up frequency of practise and enjoyment. Childhood trauma was measured with the Childhood Trauma Questionnaire (CTQ). Analyses were conducted in SPSS using generalized estimating equations (GEE) regression models and factorial ANCOVAS. <i>Results:</i> Almost all subcategories of CTQ were significantly associated with BDSM frequency. Men's physical and emotional neglect CTQ scores were the exception, as they were not significantly associated with frequency of dominative BDSM practise. There were no significant associations between the different categories of CTQ and overall BDSM score, and no interaction effects between the different CTQ categories and sex on overall BDSM score. <i>Discussion:</i> The results of the present study were somewhat similar to previous studies. The association between CTQ and BDSM seemed dependent on whether one has practised BDSM or not, as only frequency of BDSM practise was significantly related to CTQ. The large sample and nuanced measures increase generalizability of the results. A limitation of the present study is that all the data were gathered through self-report questionnaires. The present study adds important results to existing research. Further research with focus on how trauma and BDSM is defined is needed.	
Keywords: BDSM, bondage, discipline, dominance, submission, sadism, masochism, sadomasochism, childhood trauma, trauma, CTQ, fetish, sex, women, men	
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**ÅBO AKADEMI UNIVERSITY – FACULTY OF ARTS, PSYCHOLOGY AND
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Abstrakt: <i>Introduktion:</i> BDSM har länge patologiserats och stigmatiserats i samhället, vilket kan vara skadligt för självkänslan och självförtroendet hos BDSM-utövare. Att utöva BDSM, som står för Bondage & Disciplin (BD), Dominans & Underkastelse (DS) och Sadism & Masochism (SM), har spekulerats härstamma från barndomstrauma. Resultat från föregående studier inom ämnet har inte eniga resultat gällande sambandet mellan barndomstrauma och BDSM. Syftet med den här studien är att undersöka kopplingen mellan barndomstrauma och BDSM, om den överhuvudtaget finns. Föregående studier har hittat olika resultat, möjligen beroende på hur trauma och BDSM definierats. <i>Metod:</i> I den här studien användes ett stort befolkningsbaserat sampel som bestod av 9416 kvinnor och män. BDSM mättes med frågor om frekvens och njutning, och var uppdelat mellan underkastelse och dominans. Ett mått på övergripande BDSM poäng räknades ut genom att slå ihop frekvens och njutning. Barndomstrauma mättes med Childhood Trauma Questionnaire (CTQ). Analyserna gjordes med generalized estimating equation regressionsmodeller (GEE) och faktoriella ANCOVAs i SPSS. <i>Resultat:</i> Nästan alla samband mellan CTQ och BDSM frekvens var signifikanta. Endast för män var CTQ kategorierna fysisk samt emotionell försummelse inte signifikant relaterade till BDSM-dominansfrekvens. Det fanns inga signifikanta samband mellan olika kategorier av CTQ och övergripande BDSM poäng. Det fanns inte heller några signifikant interaktionseffekter mellan olika kategorier av CTQ och kön på övergripande BDSM poäng. <i>Diskussion:</i> Resultaten från den utförda studien påminde delvis om resultat från föregående studier. Sambandet mellan BDSM och CTQ verkar beroende av om man utövat BDSM eller inte. Endast BDSM frekvens hade ett samband till CTQ. Det stora samplet samt de nyanserade måtten på barndomstrauma och BDSM ökar generaliserbarheten av studien. En svaghet med studien är att all data samlades in genom självrapportering och frågeformulär. Den här studien bidrar med viktiga resultat till redan existerande studier. Ytterligare forskning krävs, med fokus på hur trauma och BDSM definieras.	
Nyckelord: BDSM, bondage, disciplin, dominans, underkastelse, sadism, masochism, sadomasochism, barndomstrauma, trauma, CTQ, fetisch, kön, kvinnor, män	
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1 Introduction

BDSM is a term that many recognize as something related to kinky sex. The abbreviation stands for Bondage & Discipline (BD), Dominance and Submission (DS) and Sadism and Masochism (SM). These three subgroups all have different nuances, but do all include some sort of power exchange between the participants. In BDSM there are designated players with different roles. A dominant is a person who assumes control, a submissive is a person who voluntarily yields control, while a switch is someone who can perform either role as dominant or submissive (Williams, 2006). Some studies have found that men are more likely to be in the dominant role, while women more often are in the submissive role (Botta et al., 2019; Paarnio et al., 2022; Yost & Hunter, 2012). While BDSM can include pain and be part of a sexual act, this is not a must, and in general there is a strong emphasis on consent and safety between BDSM practitioners (Barker et al., 2007). Just as a dominant does not have to be a sadist, a submissive does not have to be a masochist, even though that sometimes is the case (Williams, 2006). Moser & Kleinplatz (2006) speak about the difficulty in defining such a heterogeneous group, mentioning the differences between subgroups, frequency of practise and sexual orientation. Moser refers back to one of his earlier works (Weinberg et al., 1984), where they describe the following five components as usually being part of BDSM:

- The appearance of rule by one partner over the other.
- Role playing.
- Consent, as in voluntary participation, and upholding certain pre-set limits.
- Shared understanding that the activities are BDSM.
- There being a sexual context.

An important note regarding sexual context is that all BDSM practitioners do not agree that BDSM always must be in a sexual context (Moser & Kleinplatz, 2006). Newmahr (2010),

who in person observed an SM-club in the Northeast of the United States, describes how participants often were fully dressed during play and played with people they did not find sexually attractive nor were interested in being sexual with. Newmahr (2010) observed that in the community that was studied, SM was neither a replacement for sex, nor a precursor to a conventional sexual activity. Maleson (1984) pointed out that little distinction was made between sexual and non-sexual masochism in the literature, which seemingly still is the case today.

1.1 Prevalence

How one defines BDSM, and other methodological aspects might affect the measured prevalence of BDSM. In a widely referenced Australian study (Richters et al., 2008), the participants were asked about things they might do to add to sexual stimulation. The researchers found that around 1.0-2.0% of people had been involved in BDSM within the last year. Other studies have found a higher prevalence, like the Belgian study by Holvoet et al. (2017), where they measured BDSM with a 54-item questionnaire. They found that 47.0% of the sample had taken part in at least one BDSM activity ever, and 26.0% reported having any interest in BDSM, while 7.6% self-identified as BDSM practitioners. Seeing as the definition and other methodological aspects can vary extensively, it is no surprise that the prevalence ranges from 2-75% (Coppens et al., 2019; Herbenick et al., 2017; Joyal & Carpentier, 2017; Paarnio et al., 2022; Renaud & Byers, 1999; Richters et al., 2008; Tomassilli et al., 2009). It does seem like interest in BDSM, fantasies about BDSM and trying out lighter BDSM (tying up, blindfold, light spanking) are quite common, with a prevalence of 5.0-75.0% (Bailey et al., 2003; Coppens et al., 2019; Herbenick et al., 2017; Holvoet et al., 2017; Joyal & Carpentier, 2017; Tomassilli et al., 2009). Regular practise or identifying as a BDSM-

practitioner seem to be less prevalent, with percentages of 1.0-12.0% (Bailey et al., 2003; Holvoet et al., 2017; Richters et al., 2008).

Nordling et al., (2000) found that BDSM practitioners were about three times as likely to have been victims of sexual abuse as the general population, 7.9% of men and 22.7% of women reported sexual abuse, compared to 1.0-3.0% for men respectively 6.0-8.0% for women in the general population.

1.2 Stigmatization of BDSM

The term BDSM has in recent years been popularized by media, like the book trilogy *Fifty Shades of Gray* (James, 2011) and later film adaptation (Taylor-Johnson, 2015), or the movie *Secretary* (Shainberg, 2002). How well the media represents actual BDSM is of significance to the general opinion towards BDSM. Hillier (2019) argues that the *Fifty Shades of Gray* trilogy contributes to misunderstanding of BDSM and reinforcing BDSM-stigma, since there is a relationship between pathology and BDSM in the movie/books. There is a long standing history of pathologizing BDSM within the psychological and medical healthcare (Langdrige & Barker, 2013), already surfacing in medical texts from the end of the 19th century. Richard von Kraft-Ebing laid important groundwork for exploring at the time uncharted territory within sexology, when he coined the terms Masochism and Sadism (Krafft-Ebing, 1892). Although Krafft-Ebing (1892) in short defined sadism as the desire to cause pain and use force and masochism as the wish to suffer pain and be subjected to force, the general description of the concept we consider BDSM today had an negative association. Ashok (2017) describes how this disapproving ideology later was adopted into the Diagnostic and Statistical Manual of Mental Disorders (DSM). The relationship between psychopathology and BDSM has a strong connection to the DSM and the International Classification of Diseases (ICD). The wording has changed between the different editions,

but up until recent editions, all kinds of sadism and masochism were considered a disorder. In the ICD-10, which was in use until 2022, sadomasochism was still considered a disorder solely based on the sexual preference (World Health Organisation, 2019). In the current edition of DSM-V and the 11th version of ICD, the definition is a bit more flexible: a criterion of a need to feel personal distress or that the sexual behavior involves someone else's psychological distress, or involving another person unwillingly (American Psychiatric Association, 2013; World Health Organisation, 2022) has been included. Since consent is of the essence to BDSM (Barker et al., 2007), this definition generates a clearer distinction between problematic and healthy practise.

1.3 Childhood trauma

In the DSM-V trauma is defined as exposure to actual or threatened death, serious injury or sexual violence. For children, sexual violence does not necessarily have to include physical violence or injury, but can also appear as developmentally inappropriate sexual experiences (American Psychiatric Association, 2013). Exposure to trauma in childhood alters the way one perceives threats and how one reacts to them (McLaughlin & Lambert, 2017). Trauma is a known underlying factor to several psychopathologies (Carliner et al., 2016; McLaughlin et al., 2012, 2013), and as such has also been thought to influence deviant sexuality (Levenson & Grady, 2016). The previously mentioned prevalence of BDSM does not justify calling it a deviant sexuality. Interestingly there are some studies that indicate that people who practise BDSM are generally well-adjusted (Sandnabba et al., 1999), and some even show that BDSM practitioners score lower on psychopathology in comparison to control groups and the general population (Richters et al., 2008; Wismeijer & van Assen, 2013).

1.4 The association between BDSM and trauma

The origins of kink has through history been viewed through pathologizing clinical literature (Hughes & Hammack, 2020). One common explanation to the origins of this interest, especially by the psychoanalytic field of research, is that of childhood trauma. Freud (1905) suggested that BDSM stems from an unconscious negative re-enactment pattern, where one seeks out relationships and situations resembling past trauma. Hodges (2011) describes how there remains a profound tension between normalisation and pathologisation of sexual minority patients in psychoanalysis.

Nevertheless, the results from previous studies investigating the connection between childhood trauma and BDSM are ambiguous. Connolly (2006) set out to investigate existing hypotheses of the connection between psychopathology and BDSM. The sample consisted of 118 self-identified BDSM practitioners recruited from BDSM clubs and organizations. For measuring trauma, the Trauma Symptom Inventory (TSI) was used. TSI is a 100-item measure assessing acute and chronic symptoms of trauma. PTSD was also assessed, with the Posttraumatic Stress Disorder Scale (PDS) and the Minnesota Multiphase Personality Inventory (MMPI-2). BDSM was measured with a version of the Kinsey Scale of Sexual Orientation, modelled by Moser (2003). Connolly (2006) found that PTSD scores on the MMPI were significantly higher than the standardized mean. This was not replicated in the PDS, where they found no significant effect, and the scores tended to be lower than standardized means for the normal population. There were also no significant associations between TSI score and BDSM, and the BDSM sample tended to have overall lower scores on most subscales than the standardization means.

In a more recent study, Ten Brink et al. (2021) investigated how BDSM relates to trauma and attachment. They had a sample of 1,289 participants who filled in a 15-minute survey online. BDSM was measured by 54-item questionnaire and based on an analysis of these scores the

participants were placed into four different groups: no interest, fantasy, BDSM-private practise, BDSM community practise. Trauma was measured with the Brief Trauma Questionnaire, a 10-item self-report questionnaire. The researchers found that the community group and private practise group reported significantly more physical abuse in adulthood than the No interest group, but there was no significant difference for childhood physical abuse. No significant effects were found between the groups regarding sexual abuse, however, there was a mild association between sexual trauma and BDSM in the community group. Exploratory follow-up analyses revealed that this effect appeared to be mostly driven by the BDSM component submissiveness.

Abrams et al. (2022) investigated how people who had been abused and people who had not been abused differed in interest of masochism and sadism. Data were gathered through an online survey, and they had a sample of 1,219 participants. The inquiries about sadomasochism were mostly about fantasizing, and not about real-life practises. Interest in sadomasochism was separated into masochistic interests, measured at the levels of light and heavy masochism, and sadistic interests, measured at the levels of light, heavy and passive sadism. Childhood abuse was measured with questions regarding sexual, physical, and psychological abuse. The researchers found an association between childhood abuse and some forms of sadomasochism. The strongest association was of medium size, between sexual abuse and heavy sadism. All other separate analyses of abuse had small but significant positive associations with sadomasochism, except for psychological abuse and heavy sadism, which were insignificant.

Ashok (2017) sought to discover how self-esteem and history of trauma differs between people who practise BDSM, and people who do not. The sample consisted of 143 people, recruited in sex shops in L.A. Practising BDSM was measured with a simple yes or no question, and trauma was measured with the Childhood Trauma Questionnaire (CTQ-SR;

Bernstein & Fink, 1998), a 25-item questionnaire with the five following sub-scales:

emotional abuse, emotional neglect, physical abuse, physical neglect and sexual abuse.

Ashok found that people who practised BDSM scored higher on the subscales emotional abuse, and emotional neglect than people who do not practise BDSM. There were no other significant differences on the other subscales. Furthermore, in Hillier (2019), the researcher investigated a possible relationship between childhood trauma, personality traits and kinky sexual behaviors in adulthood. A sample of 68 people were recruited through a survey posted on a kink-based web platform. For measuring interest in kink, Hillier used the SMC (The Sadomasochism checklist, Weierstall & Giebel, 2017) which is comprised of two 24-item scales that measure dominance and submissiveness on a Likert-scale from 1-3. For measuring trauma, the Childhood Traumatic Events Scale (CTES) was used, a six-item scale that measure trauma before the age of 18. Hillier found a small statistical negative effect of trauma on dominance, indicating that higher scores on trauma indicated lower scores on dominance. However, this effect disappeared after removing outliers. Trauma did not correlate significantly with submissiveness.

1.5 Aims of the current study

BDSM has long been pathologized and stigmatized in society, which can be harmful to the self-image and the practitioner's sense of self. Some studies show general health benefits when comparing BDSM practitioners to the general population (Richters et al., 2008; Wismeijer & van Assen, 2013), putting this stigmatization into question. Childhood trauma has been hypothesised to be the trigger behind this sexual behavior, further pathologizing the behavior itself. Previous studies have found some correlations between childhood trauma and BDSM, but as noted by some authors (Nordling et al., 2000), it only explains a small portion of the behavior.

The aim of the present study was to investigate whether there were any associations between childhood trauma and BDSM. Previous studies have found mixed results, perhaps partly because of the way trauma and BDSM have been defined. In regard to the higher prevalence of sexual abuse in women found by Nordling et al., (2000) the interaction of sex and history of childhood abuse will be taken into consideration for a more detailed assessment. Based on the existing literature, the following hypotheses were formulated:

1. A) Higher levels of childhood sexual abuse, emotional abuse, and emotional neglect are associated with more frequent practise of submissive BDSM.
B) Experiences of physical neglect and physical abuse will not be associated with frequency of submissive BDSM practise.
2. A) Higher levels of childhood emotional abuse and emotional neglect are associated with more frequent practise of dominative BDSM.
B) Experiences of physical neglect, physical abuse and sexual abuse will not be associated with frequency of dominative BDSM practise.
3. No significant association between childhood trauma and overall BDSM submissive score (frequency of practise and enjoyment summed up) is expected.
4. No significant association between childhood trauma and overall BDSM dominative score (frequency of practise and enjoyment summed up) is expected.
5. Sex is not expected to moderate the association between childhood trauma and overall BDSM score.

2 Method

Table 1
Descriptive Statistics for Age, Childhood trauma and Frequency and Enjoyment of BDSM practise.

Variable	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	Range
	<i>Women (n= 6237)</i>		<i>Men (n= 3179)</i>		
Age	43.50	16.16	45.92	17.29	18.23-88.55
CTQ Sexual Abuse	1.17	0.57	1.06	0.30	1-5
CTQ Physical Abuse	1.31	0.60	1.34	0.58	1-5
CTQ Physical Neglect	1.45	0.63	1.39	0.55	1-5
CTQ Emotional Abuse	1.63	0.89	1.37	0.61	1-5
CTQ Emotional Neglect	1.88	0.91	1.81	0.81	1-5
BDSM Submission Frequency	1.49	0.84	1.24	0.57	1-5
BDSM Dominate Frequency	1.27	0.60	1.39	0.77	1-5
	<i>Women (n= 1898)</i>		<i>Men (n= 579)</i>		
BDSM Submission Enjoyment	3.52	1.12	3.37	1.11	1-5
	<i>Women (n= 1221)</i>		<i>Men (n= 813)</i>		
BDSM Dominate Enjoyment	3.18	1.09	3.35	1.05	1-5

Note. BDSM = Bondage & Discipline, Domination & Submission and Sadism & Masochism, CTQ = Childhood Trauma Questionnaire, *M* = Mean, *SD* = Standard Deviation.

2.1 Participants

The data used in the present study stemmed from a large, population-based sample of Finnish twins, as well as siblings and parents of twins. Twin families and their postal addresses were obtained from the Digital and Population Data Services Agency of Finland, which maintains the national population registry. In total, addresses to 50,771 individuals were obtained from the registry in the summer of 2021. Over the period from October 2021 to February 2022, these individuals were sent an invitation letter by postal mail to participate in an anonymous online survey. Each individual was assigned a randomly generated, eight-character personal code, which they could use to log on to the survey (these randomly generated codes were subsequently used to match individuals belonging to the same family, however, so that personal information and survey responses were never combined or stored together).

Individuals who did not respond in any way were sent a reminder letter 2–3 weeks after the arrival of the first invitation letter. In order to incentivize participation, invitees were offered the possibility to participate in a raffle for 100 gift cards worth €25 apiece to S-Ryhmä, a business conglomerate operating, for example, shops, grocery stores, hotels, restaurants and petrol stations across Finland (an individual could only win one gift card). In total, 12,269 individuals responded (24%) and of these, 854 individuals declined to give informed consent, leaving us with responses from 11,415 individuals. Every person who had any missing values relevant for this study were excluded. Out of the 11,415 participants, 1,444 women and 554 men were excluded due to missing 100% of the data. Additionally, one participant was excluded due to technical issues, which resulted in a final sample of 9,416 participants that was used in the analyses.

2.2 Measures

2.2.1 BDSM practise and enjoyment

BDSM was measured with a self-constructed instrument. The measure has previously been used by Paarnio et al. (2022), who used it to measure the association between BDSM interest and different personality factors.. The original measure consisted of eight questions and was part of a larger battery of questions: For the present study only four of these questions were used: *“Have you been dominated, humiliated, controlled (e.g., bondage) or has your partner caused you pain, with mutual consent to achieve sexual pleasure?”* with answer options *“never/I have tried at least once/occasionally/monthly/weekly or more often“*. If they did not answer never, this was followed by a question about how enjoyable the activity was, *“Overall, how enjoyable do/did you experience this sort of sexual activity?”* with Likert-scale answer options (1 not at all enjoyable – 5 very enjoyable). Similar questions and follow-up questions were asked regarding dominating behavior: *“Have you dominated, humiliated,*

controlled (e.g., bondage) or caused pain to a partner, with mutual consent to achieve sexual pleasure?” and “Overall, how enjoyable do/did you experience this sort of sexual activity?”

The questionnaire also included questions regarding innateness, the partners activity, and a dichotomous yes/no question regarding interest in BDSM. Testing for hypotheses 1A, 1B, 2A, and 2B, BDSM frequency was used as a dependent variable. To test hypotheses 3, 4 and 5, additional analyses were done with a dependent variable consisting of frequency of practise and enjoyment summed up together into a sum variable ranging from the scores 1 to 8.

2.2.2 Childhood trauma

Childhood trauma was measured with the Childhood Trauma Questionnaire (CTQ). The original measure is a 70-item self-report inventory measuring maltreatment experienced before the age of 18 (Bernstein et al., 1994). The CTQ used in this study is a shortened 25-item questionnaire, divided into five sub-scales each consisting of five items. The sub-scales are emotional abuse, emotional neglect, physical neglect, physical abuse, and sexual abuse. Respondents are presented with multiple statements about their childhood, where they can indicate how well these apply on a 5-point Likert-scale. Four of the different subscales mainly focus on intra-familial troubles, while the questions in the sub-scale sexual abuse are not specified. Emotional abuse are verbal assaults that are considered to reduce one's self-worth. Emotional neglect is when caretakers fail to look out for the child's psychological and emotional well-being. Physical neglect is when caretakers fail to take care of a child's physical needs. Physical abuse is when one is bodily assaulted and as a result has visible bruising and/or wounds. Sexual abuse is when someone tried to or did touch one in a sexual manner or made one watch or perform sexual actions.

The internal consistency and test-rest reliability of CTQ have been reported to be acceptable (Bernstein et al., 1994; Wingenfeld et al., 2010). In a longitudinal study, Liebschutz et al.

(2018) compared CTQ to a prospective measure of childhood violence exposure. The researchers found a moderate linear association between the two, and concluded that CTQ serves as a reasonable retrospective measure for childhood trauma. Villano et al. (2004) discussed the problem of complicated loading patterns within CTQ, as various forms of abuse often occur concurrently. Villano et al. found that CTQ had adequate internal reliability, but the researchers struggled to find the factor physical neglect when an exploratory factor analysis was performed. Also Paivio & Cramer (2004), who were examining the psychometric properties of CTQ, found physical neglect to be different. They found that all the sub-scales except for physical neglect had good internal consistency and good test-retest reliability. In the present study, the internal consistency was good for the sum variables sexual abuse (Cronbach's $\alpha = 0.89$), emotional abuse (Cronbach's $\alpha = 0.86$) and emotional neglect (Cronbach's $\alpha = 0.88$) and acceptable for physical abuse (Cronbach's $\alpha = 0.78$). Meanwhile, Cronbach's Alpha was questionable (Cronbach's $\alpha = 0.61$) for physical neglect. Additionally, CTQ has been used in multiple countries and translated to several languages (Ashok, 2017).

2.3 Statistical Analyses

IBM SPSS Statistics v.27 was used for calculating correlations and statistical analyses. Sum variables were calculated for the five subcategories of CTQ, by taking the mean of the five items on each subscale, resulting in five items measured on a scale from 1 – 5.

For the first and second hypotheses, a series of Generalized Estimating Equations (GEE) regression models were conducted to test the effect of childhood trauma on frequency of practising BDSM. GEE was used as the sample consisted of twin-data, that is, genetically related people. GEE helps control for the between-subject-dependence arising from genetic relatedness within the families, and as such is the first level of regression in the analysis.

To test the third and fourth hypotheses, more series of GEE regression models were conducted with a dependent variable consisting of frequency of practise and enjoyment summed up together into an overall measure of BDSM. The participants who had never tried BDSM lacked a score for enjoyment, and thus were excluded from these analyses, resulting in smaller sample sizes (Table 1) and a need to recalculate the variables. Both the variables were recalculated to a scale of 1 to 4 for frequency, respectively 0 to 4 for enjoyment, before merging them into the variable overall BDSM score.

As GEE does not calculate an effect size, factorial ANCOVAs were used to calculate partial η^2 for the results of the third and fourth hypotheses. Effect sizes could only be calculated for the dependent variable overall BDSM score, as it was the only dependent variable being continuous, meeting the criteria for performing a factorial ANCOVA. As factorial ANCOVA cannot control for the in-between subject variance within the families, one member from each family was randomly selected, resulting in a reduced size of the sample for this analysis. Finally, a third set of analyses were performed to test for the fifth hypothesis. Factorial ANCOVAs were used to test for interaction effects between CTQ and gender on overall BDSM score.

In parts of the third analysis, the dependent variable measuring the submissive overall BDSM score did not pass Levene's test of equality of error variances. Huge samples as the one used in this study are inclined to increase the probability of finding significant Levene's tests, overstating the problem (Grace-Martin, 2018).

As multiple GEEs and factorial ANCOVAs were conducted, Holm's correction was used to reduce the risk of detecting false positive effects instead of the traditional Bonferroni correction. Holm's correction corrects for type 1 errors as effectively as the Bonferroni correction (Eichstaedt et al., 2013), while also reducing the risk of missing a genuine effect when there is one. Skewedness was not adjusted for, even though the data had a positive

skew. Feng et al. (2014) cautions against the use of log transformation, stressing that the log-transformed data is rarely relevant for the results of the non-transformed data, and that the transformation usually generates data that is similarly normally distributed to non-transformed data. Instead Feng et al., (2014) recommend using methods as GEE, which are independent of normally distributed data. Effects as age were controlled for in all analyses.

3 Results

To investigate whether the different CTQ measures of childhood abuse were associated with frequency of BDSM practise, a series of generalized estimating equations regression models were conducted. As can be seen from Table 2, there was support for hypothesis 1A while hypothesis 1B was rejected. There was a significant positive association between all different CTQ variables and frequency of submissive BDSM practise for both women and men.

There was partial support for hypothesis 2A, while hypothesis B2 was rejected. As can be seen from Table 3, all different CTQ variables had a significant positive association with frequency of dominative BDSM practise for women, but for men this association was not significant for physical and emotional neglect. This means that hypothesis 2A would hold true for women, but not for men.

Table 2

Associations Between Frequency of Submissive BDSM Practise and CTQ Trauma Variables.

Variable	<i>df</i>	Wald χ^2	<i>p</i>	<i>B</i>	<i>SE</i>
<i>Women (N=6237)</i>					
CTQ Sexual Abuse					
Age	1, 6236	953.46	<.001*	-.07	<0.01
BDSM overall score	1, 6236	35.03	<.001*	.29	0.05
CTQ Physical Abuse					
Age	1, 6236	951.35	<.001*	-.07	<-0.01
BDSM overall score	1, 6236	50.845	<.001*	.32	0.04
CTQ Physical Neglect					
Age	1, 6236	958.36	<.001*	-.07	<0.01
BDSM overall score	1, 6236	39.62	<.001*	.28	0.05
CTQ Emotional Abuse					
Age	1, 6236	900.61	<.001*	-.06	<0.01
BDSM overall score	1, 6236	84.48	<.001*	.282	0.03
CTQ Emotional Neglect					
Age	1, 6236	957.08	<.001*	-.07	<0.01
BDSM overall score	1, 6236	43.98	<.001*	.21	0.03
<i>Men (N=3179)</i>					
CTQ Sexual Abuse					
Age	1, 3178	206.34	<.001*	-.04	<0.01
BDSM overall score	1, 3178	15.60	<.001*	.52	0.13
CTQ Physical Abuse					
Age	1, 3178	204.79	<.001*	-.04	<0.01
BDSM overall score	1, 3178	23.87	<.001	.36	0.07
CTQ Physical Neglect					
Age	1, 3178	305.36	<.001*	-.04	<0.01
BDSM overall score	1, 3178	6.57	<.001*	.23	0.09
CTQ Emotional Abuse					
Age	1, 3178	199.02	<.001*	-.04	<0.01
BDSM overall score	1, 3178	43.88	<.001*	.44	0.07
CTQ Emotional Neglect					
Age	1, 3178	206.36	<.001*	.18	-0.04
BDSM overall score	1, 3178	9.96	.002*	.10	0.06

Note. BDSM = Bondage & Discipline, Domination & Submission and Sadism & Masochism, CTQ = Childhood Trauma Questionnaire, *p* = Significance value, *= still significant after Holm's Adjustment (significant values shown are from before Holm's Adjustment), *df* = degrees of freedom, Wald χ^2 = Wald chi squared, *B* = unstandardized regression coefficient, *SE* = standard error of the *B*.

Table 3
Associations Between Frequency of Dominative BDSM Practise and CTQ Trauma Variables.

Variable	<i>df</i>	Wald χ^2	<i>p</i>	<i>B</i>	<i>SE</i>
<i>Women (N=6237)</i>					
CTQ Sexual Abuse					
Age	1, 6236	580.27	<.001*	-.06	<0.01
BDSM overall score	1, 6236	22.11	<.001*	.25	0.05
CTQ Physical Abuse					
Age	1, 6236	578.44	<.001*	-.06	<0.01
BDSM overall score	1, 6236	57.42	<.001*	.37	0.05
CTQ Physical Neglect					
Age	1, 6236	579.75	<.001*	-.06	<0.01
BDSM overall score	1, 6236	32.54	<.001*	.29	0.05
CTQ Emotional Abuse					
Age	1, 6236	542.00	<.001*	-.06	<0.01
BDSM overall score	1, 6236	74.17	<.001*	.29	0.03
CTQ Emotional Neglect					
Age	1, 6236	580.71	<.001*	-.06	<0.01
BDSM overall score	1, 6236	24.26	<.001*	.18	.036
<i>Men (N=3179)</i>					
CTQ Sexual Abuse					
Age	1, 3178	314.72	<.001*	-.05	<0.01
BDSM overall score	1, 3178	18.87	<.001*	.49	0.11
CTQ Physical Abuse					
Age	1, 3178	308.14	<.001*	-.05	<0.01
BDSM overall score	1, 3178	17.93	<.001*	.29	0.07
CTQ Physical Neglect					
Age	1, 3178	302.71	<.001*	-.05	<0.01
BDSM overall score	1, 3178	2.42	.120	.13	0.08
CTQ Emotional Abuse					
Age	1, 3178	305.57	<.001*	-.05	<0.01
BDSM overall score	1, 3178	22.98	<.001*	.29	0.06
CTQ Emotional Neglect					
Age	1, 3178	306.18	<.001*	-.05	<0.01
BDSM overall score	1, 3178	1.26	.262	.06	0.05

Note. BDSM = Bondage & Discipline, Domination & Submission and Sadism & Masochism, CTQ = Childhood Trauma Questionnaire, *p* = Significance value, *= still significant after Holm's Adjustment (significant values shown are from before Holm's Adjustment), *df* = degrees of freedom, Wald χ^2 = Wald chi squared, *B* = unstandardized regression coefficient, *SE* = standard error of the *B*.

To investigate whether the different CTQ measures of childhood abuse was associated with overall BDSM score, a series of generalized estimating equations regression models were conducted. Hypotheses 3 and 4, that formulates that there would be no significant association between CTQ and overall BDSM overall score, were supported. As can be seen in Table 4 and Table 5 there were no significant associations between the different CTQ variables and neither the submissive BDSM overall score, nor for the dominative BDSM overall score. Before Holm's correction was applied there was a tiny significant association between submissive overall BDSM score and emotional abuse for women, but this was rendered insignificant through the correction. Similarly, the opposite was true for men, there was a tiny significant association between dominative overall BDSM score and emotional abuse, which was then rendered insignificant through Holm's correction.

Table 4
Associations Between Overall Submissive BDSM Score and CTQ Trauma Variables.

Variable	<i>df</i>	Wald χ^2	<i>p</i>	<i>B</i>	<i>SE</i>	η^2_{partial}
	<i>Women (N=1898)</i>					<i>(N=1660)</i>
CTQ Sexual Abuse						
Age	1, 1897	59.08	<.001*	-.05	<0.01	.03
BDSM overall score	1, 1897	<0.01	.985	<-.01	0.19	<.01
CTQ Physical Abuse						
Age	1, 1897	57.36	<.001*	-.05	<0.01	.02
BDSM overall score	1, 1897	0.055	.815	.04	0.15	<.01
CTQ Physical Neglect						
Age	1, 1897	48.31	<.001*	-.05	<0.01	.02
BDSM overall score	1, 1897	0.025	.874	-.03	0.16	<.01
CTQ Emotional Abuse						
Age	1, 1897	44.90	<.001*	-.04	<0.01	.02
BDSM overall score	1, 1897	5.05	.025	.22	0.10	0.002
CTQ Emotional Neglect						
Age	1, 1897	0.33	.565	-.01	0.01	.03
BDSM overall score	1, 1897	0.01	.906	.01	0.11	<.01
	<i>Men (N=813)</i>					<i>(N=473)</i>

CTQ Sexual Abuse						
Age	1, 812	0.46	.498	-.02	0.02	<.01
BDSM overall score	1, 812	0.14	.712	.26	0.72	<.01
CTQ Physical Abuse						
Age	1, 812	0.92	0.339	<-.01	0.01	<.01
BDSM overall score	1, 812	0.19	0.663	.15	0.34	<.01
CTQ Physical Neglect						
Age	1, 812	0.05	0.832	<-.01	0.01	<.01
BDSM overall score	1, 812	0.16	0.689	.16	0.39	<.01
CTQ Emotional Abuse						
Age	1, 812	0.02	0.877	<.01	0.01	<.01
BDSM overall score	1, 812	1.47	0.225	.30	0.25	<.01
CTQ Emotional Neglect						
Age	1, 812	0.33	0.565	<-.01	0.01	<.01
BDSM overall score	1, 812	0.79	0.376	.19	0.22	<.01

Note. BDSM = Bondage & Discipline, Domination & Submission and Sadism & Masochism, CTQ = Childhood Trauma Questionnaire, p = Significance value, *= still significant after Holm's Adjustment (significant values shown are from before Holm's Adjustment), df = degrees of freedom, Wald χ^2 = Wald chi squared, B = unstandardized regression coefficient, SE = standard error of the B, η^2_{partial} = partial eta squared which is not calculated with GEE and thus has a smaller sample size.

Table 5

Associations Between Overall Dominative BDSM Score and CTQ Trauma Variables.

Variable	<i>df</i>	Wald χ^2	<i>p</i>	<i>B</i>	<i>SE</i>	η^2_{partial}
	<i>Women (N=1221)</i>					<i>(N=1097)</i>
CTQ Sexual Abuse						
Age	1, 1220	26.79	<.001*	-.04	<0.01	.02
BDSM overall score	1, 1220	0.51	.476	-.16	0.22	<.01
CTQ Physical Abuse						
Age	1, 1220	15.92	<.001*	-.03	<0.01	.01
BDSM overall score	1, 1220	1.04	.308	.17	0.17	<.01
CTQ Physical Neglect						
Age	1, 1220	10.55	.001*	-.03	<0.01	.01
BDSM overall score	1, 1220	0.19	.667	.08	0.18	<.01
CTQ Emotional Abuse						
Age	1, 1220	14.4	<.001*	-.03	<0.01	<.01
BDSM overall score	1, 1220	1.31	.253	.14	0.12	<.01
CTQ Emotional Neglect						
Age	1, 1220	21.96	<.001*	-.04	<0.01	.02
BDSM overall score	1, 1220	0.60	.439	-.10	0.13	<.01
	<i>Men (N=813)</i>					<i>(N=691)</i>
CTQ Sexual Abuse						
Age	1, 812	2.22	.136	-.03	0.02	<.01
BDSM overall score	1, 812	0.02	.900	-.07	0.58	<.01
CTQ Physical Abuse						
Age	1, 812	1.16	.281	-.01	0.01	<.01
BDSM overall score	1, 812	0.69	.406	.26	0.31	<.01
CTQ Physical Neglect						
Age	1, 812	1.03	.310	-.01	0.01	<.01
BDSM overall score	1, 812	0.42	.515	.22	0.33	<.01
CTQ Emotional Abuse						
Age	1, 812	<0.01	.953	<.01	<0.01	<.01
BDSM overall score	1, 812	4.58	.032	.53	0.25	<.01
CTQ Emotional Neglect						
Age	1, 812	4.08	.043	-.02	<0.01	<.01
BDSM overall score	1, 812	0.32	.571	0.11	0.19	<.01

Note. BDSM = Bondage & Discipline, Domination & Submission and Sadism & Masochism, CTQ = Childhood Trauma Questionnaire, *p* = Significance value, *= still significant after Holm's Adjustment (significant values shown are from before Holm's Adjustment), *df* = degrees of freedom, Wald χ^2 = Wald chi squared, *B* = unstandardized regression coefficient, *SE* = standard error of the *B*, η^2_{partial} = partial eta squared which is not calculated with GEE and thus has a smaller sample size.

A series of factorial ANCOVAs were used to measure if there was an interaction effect between sex and the different CTQ variables on overall BDSM score. As can be seen from Table 6 and Table 7 there was no significant interaction effect between sex and the different CTQ variables on overall BDSM score, supporting hypothesis 5. The F-values were also quite low, even under 1.0 in some cases, further underlining the insignificance of the results. Levene's test of equality of error variances was significant for the submissive overall BDSM score dependent variable, when measuring the interaction effects between sex and sexual abuse and for the interaction effect between sex and emotional neglect.

Table 6
Associations Between Overall Submissive BDSM Score and Sex x CTQ Trauma Variables Interaction.

Variable	<i>df</i>	<i>F</i>	<i>p</i>	η^2_{partial}
<i>N=2133</i>				
CTQ Sexual Abuse x Sex				
Age	1, 2118	41.002	<0.001*	0.019
BDSM overall score	4, 2118	1.580	0.177	0.003
CTQ Physical Abuse x Sex				
Age	1, 2118	29.839	<0.001*	0.014
BDSM overall score	4, 2118	1.257	0.285	0.002
CTQ Physical Neglect x Sex				
Age	1, 2118	1.780	0.182	0.001
BDSM overall score	4, 2118	1.773	0.131	0.003
CTQ Emotional Abuse x Sex				
Age	1, 2118	120.193	<0.001*	0.054
BDSM overall score	4, 2118	1.480	0.206	0.003
CTQ Emotional Neglect x Sex				
Age	1, 2118	90.154	<0.001*	0.041
BDSM overall score	4, 2118	0.364	0.835	0.001

Note. BDSM = Bondage & Discipline, Domination & Submission and Sadism & Masochism, CTQ = Childhood Trauma Questionnaire, *p* = Significance value, *= still significant after Holm's Adjustment (significant values shown are from before Holm's Adjustment), *df* = degrees of freedom, *F* = systematic variance divided by the amount of unsystematic variance.

Table 7
Associations Between Overall Dominative BDSM Score and Sex x CTQ Trauma Variables Interaction.

Variable	<i>df</i>	<i>F</i>	<i>p</i>	η^2_{partial}
<i>N=1788</i>				
CTQ Sexual Abuse x Sex				
Age	1, 1773	6.153	0.013	0.003
BDSM overall score	4, 1773	0.573	0.682	0.001
CTQ Physical Abuse x Sex				
Age	1, 1773	28.008	<0.001*	0.016
BDSM overall score	4, 1773	1.069	0.370	0.002
CTQ Physical Neglect x Sex				
Age	1, 1773	3.103	0.078	0.002
BDSM overall score	4, 1773	0.126	0.973	<0.001
CTQ Emotional Abuse x Sex				
Age	1, 1773	58.020	<0.001*	0.032
BDSM overall score	4, 1773	0.133	0.970	<0.001
CTQ Emotional Neglect x Sex				
Age	1, 1773	52.567	<0.001*	0.029
BDSM overall score	4, 1773	1.093	0.358	0.002

Note. BDSM = Bondage & Discipline, Domination & Submission and Sadism & Masochism, CTQ = Childhood Trauma Questionnaire, *p* = Significance value, *= still significant after Holm's Adjustment (significant values shown are from before Holm's Adjustment), *df* = degrees of freedom, *F* = systematic variance divided by the amount of unsystematic variance.

4 Discussion

The present study set out to investigate and clarify whether there is an association between childhood trauma and BDSM, and if that association differs between women and men. As previous studies (Abrams et al., 2022; Ashok, 2017; Connolly, 2006; Hillier, 2019; Ten Brink et al., 2021) have used a wide variety of different instruments and ways to measure both BDSM and childhood trauma, also the results have seemed to sometimes vary accordingly. Specifically, the measure of BDSM is heterogenous, with the measure ranging from being a yes and no answer to elaborate instruments also inquiring about different roles and more detailed practise. This is why this study included more specific descriptions of BDSM. Submission and domination were purposefully investigated separately, providing a more detailed insight. Frequency of BDSM practise has in previous studies been linked to emotional trauma (Ashok, 2017) and submissiveness to sexual trauma (Ten Brink et al., 2021), which makes it probable that emotional abuse, emotional neglect and sexual abuse are associated with frequency of practise (hypotheses 1 and 2). While frequency of practise captures how often someone does an activity, which might imply enjoyment, it does not directly measure enjoyment. Furthermore, being able to enjoy safe and consensual sexual activities hardly seem like something that should have a positive association with childhood trauma. Hence, no significant results were expected for hypotheses 3, 4 and 5 contrary to previous studies such as (Abrams et al., 2022; Ashok, 2017; Ten Brink et al., 2021).

Women and men do differ in their interests towards BDSM (Botta et al., 2019; Paarnio et al., 2022; Yost & Hunter, 2012), and women do tend to report more sexual trauma while men report more physical trauma (Christiansen, 2017). The differences between the sexes indicates that this association should be investigated further. Previous studies investigating the connection between childhood trauma and BDSM have not to my knowledge found any

evidence of an interaction between gender and childhood trauma on BDSM, which is why no interactions were expected between sex and childhood trauma on overall BDSM score.

4.1 Main findings and Interpretations

The results from the analyses regarding frequency indicate that there is a significant association between almost all different measured categories of childhood trauma and frequency of dominative and submissive BDSM practise. Only emotional and physical neglect were not significantly associated with frequency of dominative BDSM practise, and that was only for men. This confirms hypothesis 1A and partially 2A, but rejects hypotheses 1B and 2B. Based on previous studies (Ashok, 2017) it was expected that the emotional part of trauma would predict frequency of BDSM practise for both submissiveness and domination, and sexual trauma would predict submissive BDSM frequency of practise (Ten Brink et al., 2021). The positive associations between emotional abuse/ neglect and BDSM (Ashok, 2017) and the positive association between sexual abuse and submissive BDSM (Ten Brink et al., 2021) were corroborated in the present study. However, these associations did not stand out, as almost all the other CTQ variables were also significantly associated to BDSM frequency of practise. The sample used in the present study was larger than in the previous studies, making it easier to detect significant effects that could have been insignificant in previous studies.

The results from the analyses regarding overall BDSM score revealed that these effects disappeared when enjoyment and frequency were summed up to one dependent variable, confirming the 3rd and 4th hypotheses that no significant association would be found between CTQ and overall BDSM score. The sample used in the 3rd, 4th and 5th hypotheses were smaller, which could explain why no significant effects were found. Interestingly, there were two significant associations before the Holm's correction was applied, namely for emotional

abuse. For men this association was found between emotional abuse and overall dominative BDSM score, and for women between emotional abuse and overall submissive BDSM score. If one entertains the idea that childhood trauma is associated with BDSM, this could perhaps indicate why men are more prone to take a dominative role, while women are more likely to be in a submissive role (Botta et al., 2019; Paarnio et al., 2022; Yost & Hunter, 2012). However, both of these effects were tiny ($\eta^2_{\text{partial}} = <0.01$), and as mentioned, Holm's correction rendered them insignificant. Therefore, it seems unlikely that exploring this thought pattern further would lead to fruitful discoveries.

The differing results regarding significance for the different dependent variables could have multiple explanations. While both samples were quite large, the sample size when measuring overall BDSM score was smaller, making it harder to detect significant effects. However, as the smaller sample (1221 women and 813 men) in the present study still was larger than the samples in most previous studies (Ashok, 2017; Connolly, 2006; Hillier, 2019) and similar to Abrams et al. (2022) (1219 participants) and Ten Brink et al. (2021) (1289 participants), it is unlikely that a significant effect would go undetected.

The sample for the overall BDSM score was also different, as only participants who had at least tried BDSM once could be included. Perhaps this could indicate that the association between BDSM and childhood trauma has more to do with whether one has practised BDSM at all or not. Enjoyment could be negatively associated to childhood trauma. There could be a group of BDSM practitioners who do not enjoy it, but instead use it as coping mechanism for past trauma. However, this warrants further research.

The results for the 5th hypothesis did not reveal any significant interaction effects between sex and sexual trauma on overall BDSM score, supporting the fifth hypothesis. Admittedly Levene's test was significant for two out of the 10 analyses, which warrants caution with the interpretation. However, the large sample size makes it unlikely to have an extensive impact

on the overall results. Interaction effects between sex and childhood trauma on BDSM have not to my knowledge been measured before. As men are more likely to be in a dominating role while women are more likely to be in a submissive role, while there are studies showing differing prevalences of abuse between female and male BDSM practitioners (Nordling et al., 2000), it seemed logical to explore this with the expectation of no significant sex and childhood trauma interactions.

4.2 Strengths and Limitations of the Study

One of the strengths of this study is the large population-based sample. It increases generalizability and stands in contrast to samples solely from the BDSM community. The measure for childhood trauma has good internal consistency and good test-retest reliability, even though the sub-category physical neglect has less consistently scored well on these measures. Including multiple categories of trauma should help with increasing generalizability of the results (Seehuus et al., 2015). CTQ has also been used in other studies investigating similar phenomena. The measure for frequency of BDSM is a straight-forward measure of how often one practises BDSM with a few descriptive examples making it quite easy to understand. Some previous studies were more inclined to ask about fantasies (Abrams et al., 2022), or simply had a yes or no answer (Ashok, 2017). The abbreviation BDSM is not an everyday term, hence having a description is not only essential but also ensures a unified understanding. The fact that BDSM is separated into submissiveness and domination also increases generalizability.

All the data used in this study was from a larger questionnaire-battery, which could be seen as a limitation. As any questionnaire of this kind the data is based on self-reports, which could increase recall-bias (Althubaiti, 2016). While large batteries are efficient ways of gathering data, long questionnaires are known to tire out participants and can decrease the

probability to recall past events and feelings correctly. Both BDSM and past childhood trauma can be considered sensitive subjects, which increases the likelihood of social desirability bias (Althubaiti, 2016). However, the questionnaire in this study was anonymous, which should help mitigate the social desirability bias. Moreover, people tend to remember more trauma with time (Strange & Takarangi, 2015), which can bias the results further. Another limitation of the study is the construction of the second dependent variable, which is frequency of practise and enjoyment summed up. The intent was to measure an overall score of BDSM which seems essential, as a complex behavior like BDSM has more factors affecting it than just how often it is practised. However, enjoyment and frequency might not capture the whole complexity of BDSM behavior to serve as an overall measure of BDSM. Furthermore, the results are not generalizable to BDSM practitioners not considering their practise to be of sexual nature, as the questions in this study are of sexual nature.

4.3 Future Directions and Conclusions

Based on the results from the present study, there appears to be a positive association between all the different CTQ categories and frequency of submissive and dominative BDSM practise, except for the categories physical and emotional neglect for dominative practise in men. Meanwhile there are no significant associations between CTQ and the overall submissive/dominative BDSM score, and no interaction effect between sex and childhood trauma on overall BDSM score. The findings do not support the notion that BDSM is highly influenced by past childhood traumas nor indicate that there is no connection between the two. However, it does seem plausible that this connection is quite small, and specific to the frequency of BDSM practise. The present study contributes by adding results based on large population-based sample to the existing knowledge regarding the connection between childhood trauma and BDSM.

The differing results between the different dependent variables underlines the importance of how we define the measurement of BDSM, as BDSM practitioners are a quite heterogenic group of people. Just as this study, previous studies have found varying results depending on how they have defined childhood trauma and BDSM. For future research it would be important to carefully choose what measure one uses for childhood trauma and what measure for BDSM. Especially differentiating between people who practise BDSM regularly, those who have only tried it and those who only fantasize about it, as Ten Brink et al. (2021) did. The differing results also warrant looking closer into enjoyment. Future research should investigate and control for enjoyment, to see if it mediates the effect of childhood trauma on BDSM frequency. Future studies might rely on a different measure, like the SMC (Weierstall & Giebel, 2017). The SMC has more detailed questions, offers a distinction between submission and domination, while it also includes enjoyment and fantasies. Looking for interaction effects between childhood trauma and sex on frequency of practise without considering enjoyment could also result in finding differing results from what were found in this study.

5 Summary in Swedish – Svensk sammanfattning

Sambandet mellan BDSM och Barndoms Trauma

Inledning

BDSM är en term som många relaterar till kink, alltså avvikande sex. Förkortningen BDSM står för Bondage & Disciplin (BD), Dominans & Underkastelse (DS) och Sadism & Masochism (SM). Det överhängande temat inom BDSM är någon slags transaktion av makt

mellan deltagarna, där den ena dominerar över den andra. Deltagarna, eller spelarna har ofta utdelade roller, där en som dominerar är den som utövar kontroll över den andra, medan en underkastande deltagare är den som ger upp kontrollen (Williams, 2006). Ett antal studier har visat att män föredrar att vara i den dominanta rollen, medan kvinnor däremot föredrar att vara i den underkastande rollen (Botta et al., 2019; Paarnio et al., 2022; Yost & Hunter, 2012). Utövandet av BDSM sker alltid under ömsesidigt samtycke, och deltagarnas säkerhet är alltid en prioritet (Barker et al., 2007). Olika kontrollerade sätt av att förorsaka smärta är vanliga, men inget måste. Likaså är det relativt vanligt att en som är underkastande även är masochist och vice versa, men även detta är inget måste (Williams, 2006). Huruvida alla utövare av BDSM håller med om att BDSM alltid måste utövas i ett sexuellt sammanhang är inte helt klart (Moser & Kleinplatz, 2006).

Intresse, fantasier och mildare BDSM (ögonbindlar, milt agande, bondage) har en prevalens på 5-75 % (Bailey et al., 2003; Coppens et al., 2019; Herbenick et al., 2017; Holvoet et al., 2017; Joyal & Carpentier, 2017; Tomassilli et al., 2009), medan regelbundet utövande av BDSM är något mindre prevalent 1-12 % (Bailey et al., 2003; Holvoet et al., 2017; Richters et al., 2008).

BDSM har länge patologiserats inom medicinsk och psykologisk sjukvård (Langdridge & Barker, 2013), och i ICD-10, som användes fram till 2022, räknades sadomasochism som en psykisk störning enbart utgående från sexuell preferens (World Health Organisation, 2019).

Trauma har redan tidigt knutits ihop med BDSM, speciellt inom den psykoanalytiska forskningen (Freud, 1905). BDSM förknippas än idag med trauma, fastän resultaten från föregående studier är något tvetydiga gällande hur stark kopplingen är (Abrams et al., 2022; Ashok, 2017; Connolly, 2006; Hillier, 2019; Nordling et al., 2000; Ten Brink et al., 2021). I de föregående studierna har flera olika mått på BDSM använts, som ja-och-nej frågor, frågor gällande fantasier samt mera detaljerade mått som SMC (The Sadomasochism Checklist).

Syftet med denna studie är att undersöka kopplingen mellan barndomstrauma och BDSM, samt undersöka om kön har en interaktions effekt med barndomstrauma på BDSM.

Hypoteserna är följande:

1. A) Högre nivåer av sexuellt utnyttjande, emotionellt utnyttjande och emotionell försummelse i barndomen förväntas signifikant predicera mer frekvent utövande av underkastande-BDSM (uBDSM).
B) Fysisk misshandel och fysisk försummelse i barndomen förväntas inte höra signifikant ihop med uBDSM.
2. A) Högre nivåer av emotionellt utnyttjande och emotionell försummelse förväntas signifikant predicera mer frekvent utövande av dominerande-BDSM (dBDSM).
B) Sexuellt utnyttjande, fysisk misshandel och fysisk försummelse i barndomen förväntas inte höra signifikant ihop med uBDSM.
3. Inga signifikanta samband förväntas mellan barndomstrauma och övergripande BDSM-underkastelsepoäng (öBDSM-up) (frekvens och njutning summerade).
4. Inga signifikanta samband förväntas mellan barndomstrauma och övergripande BDSM-dominanspoäng (öBDSM-dp) (frekvens och njutning summerade).
5. Kön förväntades inte signifikant moderera sambandet mellan barndomstrauma och både BDSM-underkastelse och BDSM-dominans övergripande poäng (öBDSM-p).

Metod

I denna befolkningsbaserade tvillingstudie deltog 9416 personer. Deltagarna fyllde anonymt i en större ansamling av frågeformulär, varav frågor gällande: BDSM, trauma, ålder och kön användes för denna studie. Se tabell 1 för beskrivande statistik. Som mått på barndomstrauma

användes frågeformuläret CTQ (Childhood Trauma Questionnaire), vilket består av 25 frågor uppdelade i följande underkategorier: sexuellt utnyttjande, fysisk misshandel, fysisk försummelse, emotionellt utnyttjande och emotionell försummelse. BDSM mättes med frågor gällande frekvens, samt summavariabeln öBDSM-p. Den sist nämnda variabeln består av frekvens och BDSM njutning hopslagna. BDSM mättes separat för rollerna dominerande och underkastande.

Multipla GEE-test (generalized estimating equation) användes för att testa hypotes 1A, 1B, 2A, 2B, 3, och 4, medan flera faktoriella kovariansanalyser användes för att räkna ut effekter för hypoteserna 3 och 4 samt för att testa hypotes 5. GEE användes för att kunna kontrollera för släktskap i tvillingdatan. Eftersom multipla analyser utfördes användes Holms korrigeringsmetod för att minska risken att hitta falska signifikanta effekter. Eftersom de deltagare som inte provat på BDSM inte heller hade ett poäng för njutning, uteslöts de från analyserna med beroende variabel öBDSM-p. Även de faktoriella kovariansanalyserna hade ett mindre sampel (tabell 1), då man inte kan kontrollera för släktskap utan GEE. Analyserna utfördes i programvaran IBM SPSS Statistics (version 27).

Resultat

Som kan ses från tabell 2 fanns det stöd för hypotes 1A, medan hypotes 1B förkastades. Alla mått på CTQ var signifikant sammankopplade med uBDSM frekvens.

Som kan ses från tabell 3 fanns det delvis stöd för hypotes 2A, medan hypotes 2B förkastades. Alla samband mellan CTQ och uBDSM frekvens var signifikanta för kvinnor.

För män var nästan alla samband mellan CTQ och uBDSM frekvens signifikant. Endast fysisk och emotionell försummelse var inte signifikant relaterade till dBDSM frekvens.

Medan hypotes 2A förkastades för män, var den understödd för kvinnor.

För hypotes 3 och 4 fanns det ett klart stöd, då inga samband mellan CTQ och öBDSM-p var signifikanta (tabell 4 och 5). Likaså modererade inte kön signifikant sambandet mellan barndomstrauma och öBDSM-p. Levenes test för jämlika felvarianser var signifikant när köns interaktionseffekt mellan sexuellt utnyttjande och öBDSM-p samt emotionell försummelse och öBDSM-p mättes, vilket kan ha påverkat resultaten.

Diskussion

Resultaten för analyserna för hypotes 1 och 2 hade betydligt fler signifikanta samband än det förväntats (tabell 2 och 3). Resultaten påminner om Abrams et al., (2022), som fann många små signifikanta samband mellan trauma och sadomasochistiska fantasier.

Det fanns däremot inga signifikanta samband mellan CTQ och öBDSM-p, så både hypotes 3 och 4 bekräftades. Före Holms korrigerings applicerades fanns det ett minimalt signifikant samband mellan emotionellt utnyttjande och öBDSM-up för kvinnor, medan emotionellt utnyttjande var signifikant relaterat till öBDSM-dp för män. Om man antar att barndomstrauma är relaterat till BDSM, kunde man tolka det som en indikation till varför män oftare är i en dominerande roll, medan kvinnor oftare är i en underkastande roll. Men eftersom effekterna är väldigt små, och dessutom inte signifikanta efter Holm's korrigerings, är det inte en sannolik förklaring.

Resultaten från de faktoriella kovariansanalyserna var inte signifikanta, så även hypotes 5 bekräftades. Det är värt att ta i beaktande att Levenes test var positivt för 2 av de 10 utförda analyserna, så resultaten bör tolkas försiktigt.

Skillnaderna mellan resultaten för de olika beroende variablerna kan ha flera förklaringar. Sampelstorlekarna skilde sig och samplet för öBDSM-p hade endast deltagare som någon

gång provat på BDSM. Det här kunde möjligen indikera att sambandet mellan BDSM och barndomstrauma har att göra med om man någonsin provat på BDSM eller inte.

En av styrkorna i den här studien är generaliserbarheten det stora befolkningsbaserade samplet ger. Måttet CTQ har även generellt god reliabilitet och har använts i studier som mäter liknande fenomen. Måttet för BDSM frekvens har en kort men detaljerad beskrivning av vad som ingår i BDSM, vilket säkerställer att deltagarna förstått vad begreppet BDSM innebär.

Svagheter med den aktuella studien är risken för recall bias och social önskvärdhets bias som kommer med insamlad data från frågeformulär. Måttet öBDSM-p kunde även bytas ut med ett mera detaljerat mått som SMC. Resultaten går även inte att generaliseras till människor som inte anser att BDSM måste utövas i ett sexuellt sammanhang.

Eftersom resultaten från föregående studier varierat mycket beroende på vilka mått de haft för trauma och BDSM, bör man i framtida studier noggrant välja vilka mått man använder för att mäta BDSM och trauma. Det finns möjligen en skillnad mellan grupper som bara fantiserar om BDSM, de som provat på det en gång och de som utövar BDSM regelbundet.

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