An Exploratory Comparison of Attachment Style, Emotion Regulation, and Relationship Equity in BDSM and Non-BDSM Relationships

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Abstract

This quantitative study examined attachment styles, emotion regulation, and relationship equity in an anonymous online sample of adult participants (n = 155) recruited via FetLife, Facebook, Tumblr, and MTurk, and separated into three groups by relationship type: 24/7 D/s (i.e., Dominant/submissive) relationships, BDSM relationships without D/s, and non-BDSM relationships. Although no significant results regarding attachment were found, participants in 24/7 D/s relationships reported lower relationship equity than those in non-BDSM relationships and participants in non-BDSM relationships were more likely to use emotional suppression than participants in BDSM relationships. Implications for research and practice are offered.

Keywords: Relationship Equity, Emotion Regulation, Attachment, BDSM, Couples, Kink

Introduction

Imagine a couple sitting next to each other on a park bench. One partner gazes adoringly at the other partner through lowered eyelashes, seeming to flirt but never quite making eye contact. At first, the partners appear to be having a serious conversation as they speak to each other in low conspiratorial tones. Then the taller partner bursts out laughing, their head thrown back. Then you notice the shorter partner wears a thin leather collar around their neck. This could be a typical moment for a couple with D/s (i.e., Dominant and submissive) power dynamics in their relationship.

Research regarding BDSM relationships with a 24/7 D/s dynamic has been primarily qualitative, based on interview data collected from small convenience samples of populations being studied (Cutler et al., 2020; Fennell, 2015). Results of these studies offer in-depth insight into specific individuals' perspectives, yet cannot be generalized. A large-scale quantitative study of BDSM relationships including couples with 24/7 D/s dynamics can build upon existing findings and offer results that could be generalized. Ten Brink et al. (2020) suggested that further study of attachment style among people who engage in BDSM would contribute to their findings that BDSM activities are not maladaptive coping strategies. Thus, the current exploratory study was conducted to compare the interpersonal constructs of emotion regulation, attachment style, and relational equity across BDSM, 24/7 D/s, and non-BDSM relationships. We begin with an overview of relevant literature about BDSM and related stigma, types of BDSM relationships, and research regarding the aforementioned constructs as they pertain to BDSM practitioners.

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BDSM: Definition, Prevalence, and Stigma

The acronym BDSM represents a combination of bondage and discipline, dominance and submission, and sadism and masochism (Holvoet et al., 2017). In BDSM, experiences such as physical restraint, intense or limited sensory experiences, and fantasy or activities involving dominance and submission can play a key part in role-playing among consenting adults (Holvoet et al., 2017; Rehor, 2015). Well-defined BDSM subcultures exist around the world with distinct geographic and regional differences (Carlström, 2019; Zambelli, 2017), yet common values across BDSM communities underscore the importance of understanding the potential physical and psychological risks of BDSM activities and eliciting affirmative, informed consent from partners (Dunkley & Brotto, 2020). In the U.S., this concept was abbreviated as RACK, which stands for risk-aware consensual kink (Switch, n.d.). According to Jozifkova (2013), this means that BDSM involves voluntariness and consent, ensuring that clear communication of expectations, needs, and desires between partners is incorporated. Unless agreed upon by partners, the hierarchy of dominance and submission that exists in a BDSM "scene" is typically not carried over into everyday aspects of life. The tenets of any traditional, healthy, romantic, or sexual relationship can also be found in BDSM relationships. Sexuality scholars have proposed the "4 Cs" as a more accurate abbreviation to describe the values of BDSM relationships: "caring, communication, consent, and caution" (Williams et al., 2014, p. 2).

Individuals with a spectrum of identities, roles, and practices engage in BDSM activities (Ambler et al., 2017; Dunkley & Brotto, 2020; Holvoet et al., 2017; Jozifkova, 2013) that may be sexual or non-sexual (Newmahr, 2010; Fennell, 2021). Some BDSM practitioners feel connected to a subculture or community and claim a distinct kink identity (Hammack et al., 2019; Zambelli, 2017), while others describe BDSM as a therapeutic practice (Lindemann, 2011), leisure activity (Newmahr, 2010), embodied eroticism (Turley, 2016), or form of spirituality (Sprott & Williams, 2019). Just as the term BDSM represents a range of behaviors and activities in which people engage for a variety of reasons (Dunkley & Brotto, 2020), people who engage in BDSM have a range of personal qualities and do not constitute a homogenous group (Brown et al., 2020). There are many people who identify as lesbian, gay, bisexual, transgender, queer, gender expansive, and asexual within kink communities (and vice versa), yet the majority of research on BDSM subculture reflects heteronormativity (Carlström & Andersson, 2019; Zambelli, 2017), a fact that has been criticized by participants and researchers (e.g., Fennell, 2015). Many long-term BDSM relationships represented in the literature are between heterosexual, cisgender men and women, with men in Dominant roles and women in submissive roles (Botta et al., 2017; Cutler, et al., 2020; Fennell, 2015); traditional gender norms (Hammack et al., 2019) are reflected in D/s power dynamics (Agree, 2014). While these BDSM relationships may appear to reproduce hegemonic hierarchies of gender identity or role, BDSM roles and relationships can also challenge the assumptions of binary gender roles or patriarchy (Martinez, 2018; Zambelli, 2017).

Although BDSM is more frequently represented in the U.S. media in recent years, stigma still surrounds BDSM activities. Lack of accurate representation in the media contributes to racy stereotypes of BDSM practitioners as immoral or having non-traditional partnerships when in reality, some couples explore BDSM after years of marriage and raising children (Agree, 2014). According to Hansen-Brown and Jefferson (2023), BDSM practitioners are stigmatized in U.S.

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society[1]. Thus, practitioners may conceal their kink identities or activities from friends, family, and/or colleagues to protect themselves from discrimination or bias (Hammack et al., 2019; Holvoet et al., 2017).

Historically, psychiatry and related mental health fields have pathologized BDSM by describing sexual sadism and sexual masochism as mental disorders. A subtle but important change in the fifth edition of the *Diagnostic & Statistical Manual of Mental Disorders* (*DSM-5)* was that the terms "sexual sadism" and "sexual masochism" were changed to "sexual sadism disorder" and "sexual masochism disorder" to differentiate between disordered sexual behavior and normative sexual practices (American Psychiatric Association, 2013, pp. 694-95). According to *DSM-5* criteria, people either feel distress about BDSM interests not solely related to social stigma or feel consistent sexual desire to engage in non-consensual sexual or physically harmful acts for sadism or masochism to be considered pathological (Weierstall & Giebel, 2017).

Types of BDSM Relationships

Relationships that incorporate BDSM involve differing amounts of exclusivity, emotional connection, longevity, sexuality, and egalitarianism (Dancer et al., 2006). Polyamory is fairly common among BDSM practitioners (Pitagora, 2016), and partners may allow each other to engage in BDSM scenes with others (Fennell, 2015). Monogamous couples in BDSM relationships have reported the same degree of relational satisfaction as couples in non-BDSM relationships (Rogak & Connor, 2018).

People in BDSM relationships also devote different amounts of time to BDSM-oriented interactions. For those who engage in time-limited "scenes," rules and roles established during the scene, including power dynamics, are abandoned when the scene ends (Dancer et al., 2006). In contrast, couples in 24/7 Dominant/submissive (D/s) relationships have rules, roles, and power differentials permanently in place. Submissives can safely obey their Dominants because they trust Dominants will respond to submissives' needs and desires (Fennell, 2015). Established protocols between partners provide consistency and security that strengthens relational bonds (Cutler et al., 2020).

Only a few studies have examined 24/7 D/s relationships. In a study of 17 heterosexual BDSM couples, over half of the participants reported being in 24/7 D/s relationships (Cutler et al., 2020). When asked by researchers what made their relationships work, a majority of participants reported "communication" and "mutual support" as being essential (Cutler et al., 2020, p. 99). Partners in 24/7 D/s relationships utilize rules and rituals to demonstrate their interdependence (Cascalheira et al., 2021, Cutler et al., 2020) and may choose to wear items symbolizing their D/s roles, e.g., jewelry, collar (Agree, 2014). In a qualitative study of 70 BDSM practitioners, partners in 24/7 relationships reported that their power dynamic reinforced their intimate bond (Fennell, 2015). Themes across 24/7 D/s relationships are that BDSM-oriented activities demonstrate love and commitment (Fennell, 2015) and that partners deepen protocol to resolve interpersonal issues rather than breaking roles (Cutler, et al., 2020).

[1] This paper adopts the capitalization convention of some BDSM communities in which the role of Dominant is capitalized and the role of submissive is lowercased.

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Submissives described the satisfaction of pleasing someone important to them and feeling a sense of purpose while Dominants described the pleasure of having needs met and rewarding someone for a job well done. Fennell (2015) found that 24/7 relationships met a variety of relational needs for the people in them, similar to the interdependence of non-D/s couples with secure adult attachments (Johnson, 2008).

Emotion Regulation, Attachment, and BDSM

Emotional regulation has been characterized by scholars as related to attachment style (Mikulincer & Shaver, 2019), whereby people with insecure or anxious attachment styles repeatedly experience emotional activation and choose to suppress emotions they deem to be negative. For example, though physical signs of stress are still present in the body, people with avoidant attachment do not express felt stress to others (Eilert & Buccheim, 2023). In contrast, people with secure attachment styles engage in emotional suppression as a means of emotion regulation less frequently (Mikulincer & Shaver, 2019) and tend to utilize more balanced emotion regulation strategies, such as cognitive reappraisal (Eilert & Buccheim, 2023).

Research findings on attachment style and BDSM role are mixed. Wismeijer et al. (2013) and Botta et al. (2017) found that submissive role identity was more related to anxious attachment style than other identities. Wismeijer et al. (2013) also found no significant differences in avoidant attachment style between Dominants, submissives, switches, and a non-BDSM group. Ten Brink et al. (2021) found that BDSM practitioners showed more secure attachment and more anxious-preoccupied attachment than non-practitioners, with secure attachment relating to dominance and anxious attachment relating to submissiveness. Exploratory studies show some evidence that secure attachment may be a goal of partners in 24/7 D/s relationships (Agree, 2014). These couples also engage in co-constructions of reality that reinforce power exchange dynamics (Cutler et al., 2020) in ways that people in casual or intermittent BDSM relationships do not.

The Present Study

The current exploratory study aimed to fill gaps in knowledge surrounding emotion regulation, attachment styles, gender role adherence, and perceptions of relationship equity in 24/7 D/s relationships, other BDSM relationships, and non-BDSM relationships. Data analyses included independent samples *t*-tests to detect differences in attachment and emotion regulation between groups of Dominants and submissives, and an independent-samples one-way ANOVA was run to understand the relationship between power differentials and type of relationship (i.e., BDSM, 24/7 D/s, or non-BDSM).

Method

Participants

Adult individuals in non-BDSM relationships, 24/7 D/s relationships, and other relationships that incorporate BDSM activities were included in this study. Given the difficulty of recruiting BDSM practitioners reported in past research, several recruiting methods were used

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to reach the goal of approximately 150 participants: 50 non-BDSM participants, 50 participants in 24/7 D/s relationships, and 50 participants in other BDSM relationships. There were no criteria regarding monogamy or exclusivity in these relationships, yet participants had to be in established relationships (i.e., lasting at least six months). The 6-month eligibility criterion was chosen based on Levesque et al.'s (2017) study of emotion regulation and attachment in couples.

Recent studies have used BDSM-oriented websites and social media to recruit participants involved in BDSM (Ambler et al., 2017; Zambelli, 2017). Similarly, to recruit BDSM practitioners for this study, a link to the questionnaire was posted on Facebook, Tumblr, and FetLife, a social media site "like Facebook, but run by kinksters like you and me" (BitLove, 2021). Although the identities of people who join FetLife are confidential, the majority of members likely reflect the demographics of social privilege found among BDSM practitioners in the U.S., i.e., White, heterosexual, and cisgender (Martinez, 2021). While people who identify as Black, Indigenous, or people of color (BIPOC) and practice BDSM are welcome on FetLife, it is not an affinity group like other sites (e.g., Dark Connections).

MTurk (i.e., Mechanical Turk) is an online crowdsourcing website hosted by Amazon that allows businesses and researchers to collect data through Human Intelligence Tasks that people complete for monetary compensation. MTurk was used to recruit participants who were and were not involved in BDSM relationships.

Measures

A battery of instruments known to measure attachment, emotion regulation, relationship equity, and gender role beliefs and expression was used to evaluate similarities and differences between people in 24/7 BDSM relationships, people in other BDSM relationships, and people in non-BDSM relationships.

Demographics

This study included several closed-ended demographic questions created by the first author, including a question regarding relationship status to verify eligibility, i.e., only participants who had been in romantic relationships for at least six months. Each participant was asked, "Are you in a relationship that incorporates BDSM (Bondage and discipline, dominance and submission, and/or sadism and masochism?" then asked, "If yes, is your relationship identified as a 24/7 Dominant/submissive or Master/slave relationship?" and, regardless of response to the second question, asked, "If in a relationship that incorporates BDSM, in your current relationship(s), do you identify as predominantly dominant or submissive?". Questions regarding age, gender, sexual orientation, ethnicity, and level of education were included. See Table 1 for these comparisons.

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Table 1.
Gender, Sexual Orientation, Education, and Ethnicity Demographics

	24/7 BDSM	Other BDSM	Non-BDSM	Overall
Gender				
Male	63	40	46	48.7
Female	37	53	54	49.4
Other	0	6	0	1.9
Sexual Orientation				
Heterosexual	64	60	90	74.2
LGB+	35	39	10	25.7
Education				
Some high school	0	2	0	0.6
High school graduate	5	11	10	9
Some college	33	33	22	28.4
Bachelor's and above	62	53	68	62
Ethnicity				
White	86	91	65	78.1
Hispanic/Latino	2	0	6	3.2
African American	0	2	7	3.9
Other (Asian, etc.)	12	6	22	14.8

Note. All data are presented as percentages.

Adult Attachment Style

The Experiences in Close Relationships-Revised Questionnaire (ECR-R) is a 36-item self-report measure of adult attachment style (Fraley et al., 2000). The ECR-R measures individuals on two subscales of attachment that each contain 18 items: Avoidance (e.g., "I prefer not to show a partner how I feel deep down") and Anxiety (e.g., "My desire to be very close sometimes scares people away"). Participants rate how much each item has applied to their general experience of relationships on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). Cronbach's alpha in Fraley et al.'s (2000) study indicated that internal consistency is very strong for both attachment avoidance (α = .91) and anxiety (α = .94). Two items are reverse scored, and higher scores in Avoidance items indicate avoidant romantic attachment while higher scores in Anxiety indicate anxious romantic attachment. In the current study, the ECR-R demonstrated strong internal consistency for both Avoidance (α = .96) and Anxiety (α = .96).

Emotion Regulation

The Emotion Regulation Questionnaire (ERQ) is a 10-item scale that measures respondents' tendency to regulate their emotions through Cognitive Reappraisal, e.g., "I control my emotions by changing the way I think about the situation I'm in," and Expressive Suppression, e.g., "I control my emotions by not expressing them" (Gross & John, 2003). Six items make up the Cognitive Reappraisal facet, and four items make up the Expressive

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Suppression facet. Respondents answer each item on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Cronbach's alphas in Gross and John's (2003) study indicated the Cognitive Reappraisal factor (α = .80) and the Expressive Suppression factor (α = .73) had moderately strong internal consistency. Higher scores on Cognitive Reappraisal items indicate functional emotion regulation, while higher scores on Expressive Suppression items indicate dysfunctional emotion regulation. In the current study, the ERQ demonstrated strong internal consistency for the subscale Expressive Suppression (α = .79)

Relationship Equity

In the Multi-Trait Measure of Equity (MTME), respondents are asked how fair and equitable their dating and marital relationships are on 25 different facets split into four categories: Personal Concerns (e.g., Social Grace, Intelligence), Emotional Concerns (e.g., Liking and Loving, Acceptance), Day-to-Day Concerns (e.g., Finances, Sociability), and Things One Gains or Loses Simply by Dating or Being Married (e.g., Opportunities Gained or Forgone) (Traupmann et al., 1981). Responses are made on a seven-point Likert scale, ranging from +3 ("I am getting a much better deal than my partner") to -3 ("My partner is getting a much better deal than I am "). The number 0 represents complete equity ("My partner and I get an equally good deal"). For the current study, equity was measured by averaging participants' overall scores rather than considering scores in each separate category.

During the development of the MTME, Traupmann et al. (1981) demonstrated the larger scale's internal consistency for total inputs (α = .87) and total outputs scales (α = .90). Scoring involves the calculation of a *Total Index* by summing the respondents' estimates of how "good a deal" a respondent considers themselves to be getting on each of the 25 scales. More negative scores indicated that participants generally felt under-benefited, whereas more positive scores indicated that participants generally felt over-benefited and participants whose scores were close to 0 reported relatively equitable relationships. In the current study, the MTME demonstrated strong internal consistency (α = .91).

Procedure

Participants accessed the link to the survey through postings on MTurk, FetLife, Facebook, and Tumblr. The advertisements were consistently worded across social media platforms. FetLife, Facebook, and Tumblr were used to recruit participants involved in BDSM, while MTurk was used to recruit participants both involved and not involved in BDSM. The survey did not ask where the participant heard about the survey, so the percentage of respondents recruited from each source is unknown.

The survey included all measures and was administered in Qualtrics, a secure online environment. The first screen in the survey introduced participants to the types of questions they would be asked and the amount of time the study would take. Participants were understood to have given informed consent by clicking the arrow to move forward with the survey. There were no differences in the order of the survey questions and instructions for each measure were provided. No explicit instruction was given to complete the survey privately, as participants were

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anonymous, no protected health information (e.g., date of birth) was collected, and no information a participant shared could be linked back to their identity. The survey took approximately 30 minutes. Participants recruited through MTurk earned an incentive of $2 upon completion of the survey and participants recruited from other sites were not given incentives.

Results

Of 250 participants, data from 95 individuals were removed before data analysis due to reported relationship status (single or in a relationship lasting less than six months) or missing data. This resulted in 155 total participants: 42 participants in 24/7 relationships, 45 participants in other BDSM relationships, and 68 participants in non-BDSM relationships. A total of 49 dominants and 38 submissives were included in the study; 22 Dominants and 23 submissives in other BDSM relationships, and 27 Dominants and 15 submissives in 24/7 relationships. The demographics of the overall sample and each relationship group can be found in Table 1. Participants' ages ranged from 19 to 68 (M = 36.04, SD = 12.03); the majority of participants self-reported White racial identity and acquisition of at least a Bachelor's degree.

Chi-square tests were run to detect significant differences in gender, education, ethnicity, and sexual orientation between the three relationship groups (i.e., 24/7 D/s, other BDSM, non-BDSM), while a one-way ANOVA was conducted to detect significant differences in age between the three relationship groups. No significant differences in age, gender, education, and ethnicity were found. A Chi-square test revealed that the relationship between sexual orientation and type of relationship was significant, X^2 (14, N = 155) = 15.43, p < .001. Participants in BDSM relationships (24/7 or other) were significantly less likely to identify as heterosexual than participants in non-BDSM relationships, which is consistent with findings that characterize BDSM practitioners as having diverse sexual orientation identities and being predominantly White, younger, and well-educated (Williams et al., 2016). A Chi-square test was conducted to detect significant differences in gender between dominant and submissive participants in BDSM relationships. The relationship between gender and BDSM role was significant, X^2 (1, N = 83) = 42.01, p < .001. Participants who identified as Dominant were significantly more likely to identify as male, and participants who identified as submissive were significantly more likely to identify as female.

To investigate the relatedness of the questionnaires themselves, including the MTME, anxious attachment, avoidant attachment, expressive suppression, and cognitive reappraisal scales, Pearson's r correlations were calculated (see Table 2). Expressive suppression was positively correlated with both anxious (r = .33, p < .01) and avoidant (r = .44, p < .01) attachment. Cognitive reappraisal was negatively correlated with anxious (r = -.25, p < .01) and avoidant (r = -.20, p < .05) attachment. Anxious and avoidant attachment were positively related (r = .58, p < .01). These results indicate that maladaptive emotion regulation patterns are connected to maladaptive attachment patterns and adaptive emotion regulation patterns are not.

Results of the independent samples' one-way ANOVAs comparing means on all measures between the three relationship groups can be found in Table 3. There was a statistically significant relationship between expressive suppression and type of relationship, F (2, 152) = 3.43, p < .05. -The effect size was estimated to be small (η^2 = .04). Participants in non-BDSM

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relationships (*M* = 3.78, *SD* = 1.27) were most likely to use expressive suppression to regulate their emotions, followed by participants in 24/7 D/s relationships (*M* = 3.35, *SD* = 1.33). People in other BDSM relationships (*M* = 3.18, *SD* = 1.23) were found to be the least likely to utilize expressive suppression. Fisher's LSD was conducted to explore the differences between the conditions, with results supporting the conclusion that partners in non-BDSM relationships utilized expressive suppression more than partners in BDSM relationships, although not significantly more often than partners in 24/7 D/s relationships (see Table 3).

Table 2.
Correlations between Questionnaires

Measure	ECR-NX	ECR-AV	ERQ-ES	ERQ-CR
ECR-NX	1			
ECR-AV	0.58**	1		
ERQ-ES	0.33**	0.44**	1	
ERQ-CR	-0.25**	-.20*	-0.00	1
MTME	0.07	0.05	0.13	0.02

Note. ECR-NX = Experiences in Close Relationships-Anxiety; ECR-AV = Experiences in Close Relationships-Avoidance; ERQ-ES = Emotion Regulation Questionnaire-Expressive Suppression; ERQ-CR = Emotion Regulation Questionnaire-Cognitive Reappraisal; MTME = Multi-Trait Measure of Equity
*$p < .05$
**$p < .01$

Table 3.
Descriptive Statistics and One-Way ANOVA Results for Questionnaires

Measure	24/7 BDSM (*n* = 42)	Other BDSM (*n* = 45)	Non-BDSM (*n* = 68)		
	M(SD)	*M(SD)*	*M(SD)*	*F*	*p*
ECR-NX	2.79(1.29)	3.24(1.40)	2.82(1.15)	1.87	.16
ECR-AV	2.59(1.35)	2.72(1.30)	2.41(1.11)	0.89	.41
ERQ-ES	3.35(1.33)	3.18(1.23)[a]	3.78(1.27)[a]	3.43	.04
ERQ-CR	4.75(1.13)	4.43(1.16)[a]	5.04(1.12)[a]	3.96	.02
MTME	-0.19(0.67)	-0.13(0.58)	0.23(0.87)[b]	5.17	.007

Note. ECR-NX = Experiences in Close Relationships-Anxiety; ECR-AV = Experiences in Close Relationships-Avoidance; ERQ-ES = Emotion Regulation Questionnaire-Expressive Suppression; ERQ-CR = Emotion Regulation Questionnaire-Cognitive Reappraisal; MTME = Multi-Trait Measure of Equity

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[a] denotes means statistically significant from each other based on Fisher's LSD post-hoc test
[b] denotes means statistically significant from 0 based on independent samples *t*-test

There was also a statistically significant relationship between cognitive reappraisal and type of relationship, $F(2, 152) = 3.96$, $p < .05$. The effect size was estimated to be small ($\eta^2 = .05$). Participants in non-BDSM relationships ($M = 5.04$, $SD = 1.12$) were most likely to use cognitive reappraisal to regulate their emotions, followed by participants in 24/7 D/s relationships ($M = 4.75$, $SD = 1.13$). People in other BDSM relationships ($M = 4.43$, $SD = 1.16$) were found to be least likely to utilize cognitive reappraisal. Fisher's LSD was conducted to explore differences between the conditions, with results indicating that partners in non-BDSM relationships utilize cognitive reappraisal more than partners in any type of BDSM relationship, although not significantly more often than partners in 24/7 D/s relationships.

There was also a statistically significant relationship between levels of equity and type of relationship, $F (2, 152) = 5.17$, $p < .01$. The effect size was estimated to be medium ($\eta^2 = .06$). Participants in 24/7 D/s relationships ($M = -0.19$, $SD = 0.67$) were found to be the most likely to report feeling that their partner gets a better deal than them, followed by participants in other BDSM relationships ($M = -0.13$, $SD = 0.58$). People in non-BDSM relationships ($M = 0.23$, $SD = 0.87$) were found to be most likely to report feeling that they are getting a better deal than their partner. Fisher's LSD tests were also conducted to explore the differences in perceptions of relationship equity between the three levels of BDSM involvement (see Table 3), with results indicating that participants in BDSM relationships were more likely to report that their partner was getting a better deal compared to participants in non-BDSM relationships, and that participants in 24/7 D/s relationships were no more likely to feel this way than participants in other BDSM relationships. A subsequent analysis of these data revealed that both women and ($p = .02$) in 24/7 D/s relationships ($p = .01$) felt their partner was getting a better deal regarding day-to-day concerns (Ryan & Ro, 2019).

Due to the nature of the MTME scale, specifically that the value zero indicates complete equity, one sample *t*-tests were conducted running MTME scores for each group against a mean of 0 to determine whether any group felt they were significantly under- or over-benefited (see Table 3),with results indicating that earlier differences in the one-way ANOVA may stem more from non-BDSM practitioners viewing themselves as over-benefited rather than BDSM practitioners viewing themselves as under-benefited.

In addition to one-way ANOVAs comparing the means of all three relationship categories on each measure, two-way ANOVAs were conducted focusing solely on participants that were involved in BDSM in some way ($n = 86$; see Table 4). Two levels of BDSM involvement (i.e., 24/7 D/s relationships, other BDSM relationships) and two levels of BDSM role (i.e., Dominant, submissive) were included. No significant interaction effects were found. The main effect of BDSM role on expressive suppression scores yielded an *F* ratio of $F(3, 86) = 5.87$, $p < .05$, indicating that expressive suppression scores were significantly higher for Dominants ($M = 3.53$, $SD = 0.18$) than for submissives ($M = 2.87$, $SD = 0.21$).

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Table 4.
Two-Way ANOVA Results for Questionnaires by Type of BDSM Relationship and Role

	Type of BDSM	Role	Type x Role
Measure	*F*	*F*	*F*
ECR-NX	1.79	0.31	0.38
ECR-AV	0.14	0.21	1.20
ERQ-ES	0.02	5.87*	0.59
ERQ-CR	0.98	3.03	0.06
MTME	0.02	3.74	2.86

Note. ECR-NX = Experiences in Close Relationships-Anxiety; ECR-AV = Experiences in Close Relationships-Avoidance; ERQ-ES = Emotion Regulation Questionnaire-Expressive Suppression; ERQ-CR = Emotion Regulation Questionnaire-Cognitive Reappraisal; MTME = Multi-Trait Measure of Equity
*$p < .05$

Discussion

The results of these exploratory analyses revealed both similarities and differences between people in BDSM and non-BDSM relationships in the areas of attachment, emotion regulation, and relationship equity. No significant differences in attachment styles were found between any of the relationship subgroups, which is consistent with studies that have found no significant differences in attachment between participants in different BDSM roles and a group comprised of participants uninvolved in BDSM (Wismeijer et al., 2013). In terms of emotion regulation, participants in non-BDSM relationships utilized expressive suppression and cognitive reappraisal significantly more frequently than those in BDSM relationships.

When comparing emotion regulation among Dominants and submissives in BDSM relationships, Dominants reported using expressive suppression more frequently than submissives. These results are surprising given that a prior study found that participants with Dominant fantasies were more likely to use cognitive reappraisal than those with other BDSM - related interests (Dahl et al., 2024). However, this study did not compare those interested in BDSM to those who were not, which may help explain the discrepancy in results.

Results from the one-way ANOVA comparing scores on the MTME, which measured equity between 24/7, other, and non-BDSM groups showed that differences in relationship equity were more pronounced in 24/7 D/s relationships than in other types of relationships. Specifically, participants in 24/7 D/s relationships were significantly more likely to believe that their partners were getting a better deal than them compared to participants in non-BDSM relationships, regardless of role. As Fennell (2015) described, people in 24/7 relationships consistently perform duties aligned with their respective roles. Role exhaustion may explain why Dominants and

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submissives believed their partners were "getting a better deal." Another possible explanation is that one's partner getting a better deal may be viewed positively by people in 24/7 D/s relationships; in other words, self-sacrifice may be valued by partners in these relationships (Stiles & Clark, 2011) as an aspect of interdependence.

People in other BDSM relationships were also significantly more likely to say that their partners were getting a better deal than them as compared to non-practitioners, which likely reflects underlying social norms of equity in non-BDSM relationships (Hammack et al., 2019). Making sure a partner is getting the better deal might be a goal in BDSM relationships that involve caretaking and service (Cascalheira et al., 2021; Cutler et al., 2020). Using an assessment that was normed with heterosexual, cisgender people in non-BDSM relationships and has not been previously normed with people in BDSM relationships (i.e., MTME) could explain the valence and strength of these findings.

This study is one of few quantitative analyses of different types of BDSM relationships and the attachment styles and emotional regulation practices utilized by partners in these relationships. As people from across the United States and potentially around the world, with many different ages and ethnic, gender, and sexual identities were able to participate in this study due to the use of MTurk and FetLife, the results are somewhat generalizable to the larger population of BDSM practitioners.

Limitations and Future Directions

There are several limitations to this study. One design limitation is that using cross-sectional data precluded us from making inferences about causality. We cannot infer any directional relationships between attachment, emotion regulation, and relational equity from correlational results. Since all recruiting was done online through only a handful of websites, people in BDSM communities who were not active online were not eligible to participate. FetLife, which may be the only outlet for BDSM practitioners living in smaller, more politically conservative, or rural communities, has been criticized for not being inclusive of BIPOC people (Feast, 2020). Despite their terms of service prohibiting users from "mak[ing] or promot[ing] any type of racism or hate…unless in the context of role-playing between consenting parties," members who identify as BIPOC reported increases in racial slurs in recent years and feeling unwelcome or unsafe on the site as a result (Erickson et al., 2021). This may explain why the majority of BDSM participants in the current study were White and heterosexual. Another limitation involving recruitment is that we did not verify that MTurk workers completing the study were human and did not include attention checks in the survey. Research conducted before this study suggested that MTurk workers generally provided valid, reliable data (Chandler & Shapiro, 2016), and the presence of bots on MTurk was not reported as a challenge to data collection until after the study was concluded (Chmielewski & Kucker, 2020; Webb & Tangney, 2022). Without safeguards against bots, data integrity could be limited if these issues were present.

The measures used in this study have a few limitations. Only one maladaptive emotion regulation technique, i.e., expressive suppression, could be analyzed with the ERQ. Research has shown that many emotion regulation techniques can be used by one person (Pascuzzo et al., 2013). While this study found that people in 24/7 D/s relationships are no more likely to use

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expressive suppression than non-BDSM practitioners, more research is needed to provide sufficient evidence that BDSM practitioners in relationships are not more likely than non-practitioners to use maladaptive emotion regulation techniques. The MTME was normed with cisgender people in dyadic relationships who endorsed binary gender identities; the tool may not be culturally appropriate for this sample, given the prevalence of gender-expansive and consensually non-monogamous identities reported. Unfortunately, instruments normed to measure these constructs within these populations do not exist.

A final limitation that could be addressed by future studies is the lack of inclusivity of BDSM practitioners in polyamorous or aromantic relationships. A space was left in the survey for participants to "add any comments about this survey or any other information you feel would be relevant to this research." Several participants commented that since the study specified that only romantic relationships qualified for this study, their aromantic relationship would be excluded. A few participants commented that while they were in a BDSM relationship, they answered survey questions thinking about a non-BDSM relationship. As this study asked participants to base responses on their relationship with one partner, the generalizability of the results is limited to monogamous relationships. To be more generalizable, future research could explore the BDSM dynamics in polyamorous and aromantic relationships (see Bauer, 2010).

The findings of this study can provide direction for future researchers about attachment and emotion regulation among people who practice BDSM. The contribution of research evidence that people who practice BDSM report secure attachment as often as people who do not practice BDSM may help to reduce stigma toward people in BDSM relationships. An exploration of a broader array of emotion regulation techniques used by BDSM practitioners could enhance our understanding of how emotional expression and BDSM activities relate. Assessing attachment, emotion regulation, and relational equity in a longitudinal study of people who practice BDSM would allow for quantitative investigation of patterns of relating to see if they remain stable or change over time.

It may also be interesting to explore differences in beliefs about relationship equity and relationship satisfaction among people who practice BDSM in the U.S. Investigating the intersections of D/s roles and relational expectations among BDSM practitioners can illuminate how BDSM relationships challenge social and sexual norms (Hammack et al., 2019; Hébert & Weaver, 2015). The creation and validation of assessments of relationship equity that better reflect the values and norms of BDSM practitioners could extend this line of quantitative inquiry.

This study, like many about BDSM practitioners, enrolled primarily White, heterosexual, cisgender participants. Researchers noted the "overwhelming whiteness of writing on S/M" throughout the early 2000s, which continues to be troubling (Langdridge & Barker, 2007, p. 6). Even a study exploring intersecting identities enrolled participants who identified as "white, North American, heterosexually identified and college educated (sic)" (Damm et al., 2018, p. 21). Recent articles have described racism within BDSM spaces (Erickson et al., 2021) and called for greater inclusion and representation of BDSM practitioners who identify as BIPOC (Martinez, 2021; Newmahr, 2008). To increase inclusion and better represent the diversity of identities among BDSM practitioners, future studies on this topic can incorporate intentional

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sampling, or recruit participants from online forums or community events specifically for BDSM practitioners who identify as BIPOC or as queer and trans people of color (QTPOC).

Conclusion

Overall, this study has paved the way for future quantitative analysis of attachment styles, emotion regulation, and relationship equity among BDSM practitioners. By including different types of BDSM relationships (e.g., 24/7 D/s and other relationships) in an exploratory study of attachment, this research contributed to de-pathologizing BDSM relationships by illuminating similarities with non-BDSM relationships and highlighting ways in which couples in BDSM relationships express themselves emotionally. Further examination of what contributes to relationship satisfaction reported by couples in 24/7 D/s relationships may be particularly important for mental health providers working with people in these relationships.

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