



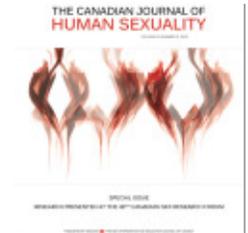
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# An examination of personality characteristics associated with BDSM orientations

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Previous research on BDSM (bondage-discipline, domination-submission, sadomasochism) tends to treat practitioners as a homogenous group and lumps dominants (desire to take control) and submissives (desire to be controlled) together. Research suggests that personality traits, such as extraversion, relate to a variety of sexual attitudes and behaviours. To date, the research on personality and BDSM is scant and often does not distinguish BDSM preferences. The current study compared BDSM practitioners with self-identified preferences for dominance to those preferring submission on their self-reported levels of desire for control, empathy, honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, openness to experience, altruism, self-esteem, and life satisfaction. BDSM practitioners ( $n = 270$ ; 80 dominants and 190 submissives) completed an online questionnaire package. Dominants scored significantly higher than submissives on desire for control, extraversion, self-esteem, and life satisfaction. Submissives scored significantly higher than dominants on emotionality. Dominants and submissives did not differ on empathy, honesty-humility, conscientiousness, openness to experience, altruism, or agreeableness. These findings demonstrate that there are unique features that characterize BDSM practitioners who prefer the dominant and submissive orientations.

KEY WORDS: BDSM, personality, sexuality, dominance, submission

## INTRODUCTION

BDSM refers to a range of sexual preferences that generally relate to enjoyment of physical control, psychological control, and / or pain. It can be broken down into six overarching components: bondage and discipline, domination and submission, and sadism and masochism (Stiles & Clark, 2011). Bondage and discipline consist of using physical or psychological restraints, domination and submission involve an exchange of power and control, and sadism and masochism refer to taking pleasure in others' or one's own pain or humiliation. Those who practice BDSM may identify with one or more, in any combination, of these components. BDSM is seen as a sexual proclivity because BDSM activities, also known as play, often occur in a sexual context or provides specifically sexual pleasure (Weinberg, Williams, & Moser, 1984). For some practitioners, BDSM is merely an occasional form of sexual expression, while others see it as a sexual identity or orientation much like we conceptualize sexual orientation, and still others see it as a lifestyle (Kolmes, Stock, & Moser, 2006).

In an attempt to better define BDSM by distilling common elements across the varied practices, Weinberg et al. (1984) found that there are five common features of sadomasochistic

activities: the impression that one partner controls the other, role-play, consensuality, shared beliefs about what sadomasochism is, and a sexual context. It is important to note that while this study specifically used the term sadomasochism, it likely encompassed varied forms of BDSM because the article did refer to the importance of control and did not find that pain (the feature most associated with the terms sadism and masochism specifically) is an essential component. To complicate matters further, not all of these five features are necessary to BDSM play. For example, Weinberg et al. (1984) argue that a context of sexuality is often, but not always, present. Conversely, all of the BDSM activities the researchers observed included the appearance of control and it was noted that consent was requisite for all BDSM play. Indeed, the BDSM's motto is "safe, sane, and consensual" and negotiations are typically undertaken before playing so that everyone knows what will and will not transpire and to ensure that practitioners give full and informed consent (Damon, 2003).

As may be evident from the nuanced definition, BDSM includes a plethora of activities and styles of play. This can be problematic when attempting to properly define BDSM, as well as when studying prevalence. The diverse activities that could fit under the umbrella of BDSM range from hair

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pulling or biting during sexual activity to behaviours that those outside of the BDSM community would consider more extreme, like “cock and ball torture” or water sports, which refers to the use of urine during sexual play (Moser & Levitt, 1987). The idea that all BDSM play involves pain is a common misconception: many play activities are focused not on pain, but rather on a psychological power exchange (Weinberg et al., 1984). In addition, BDSM does not always involve sexual contact and play rarely makes up the entirety of a person’s sexual activity. One study found that only 11.2% of BDSM practitioners exclusively engaged in BDSM play during sexual intimacy, for 32% it constituted less than half of their sexual activity (Connolly, 2006). Further, some BDSM practitioners choose to live in 24/7 relationships, which means they are constantly in role with their partner (Brame, 2000; Moser, 1989).

The diversity of BDSM practices makes arriving at prevalence estimates challenging. An Australian telephone study using a representative sample of 19,307 participants found that 2.2% of sexually active men and 1.3% of sexually active women participated in BDSM in the previous year (Richters, de Visser, Rissel, Grulich, & Smith, 2008). These figures are lower than those suggested by other research, perhaps because Richters et al. (2008) did not define what constituted BDSM, which could result in an underrepresentation because some people who engage in activities that are consistent with definitions of BDSM may not know to or decide to label them as such. Furthermore, the study only considered BDSM play in the previous year, which would exclude those who were not currently practicing for a variety of reasons, including those who did not have a sexual partner during that time. Other researchers in the field estimate that 10% of adults participate in BDSM (Moser & Kleinplatz, 2006). An American study by Janus and Janus (1993) found that approximately 14% of males and 11% of females had engaged in some form of BDSM in their lives. Moreover, the prevalence of behaviours and desires that can be considered consistent with BDSM is far higher. Even more than a half century ago, Kinsey, Pomeroy, and Martin (1948) found that 50% of men and 54% of women indicated that they found sexual pleasure in being bitten. A more recent study found that 65% of Canadian university students had fantasies of being tied up, while 62% fantasized about tying someone else up (Renaud & Byers, 1999). As such, even though prevalence data are varied, it can be assumed that a substantial number of people engage in BDSM.

Those who practice BDSM can be divided into at least two very broad groups: those who want to be in control and those who want to relinquish control. These groups roughly correspond to the terms dominant and submissive. Of course, it is not really that simple. Other common terms that practitioners may identify with are top, the active party in sensation play, bottom, the passive party in sensation play, sadist, those who enjoy inflicting pain or humiliation, or masochist, those who enjoy experiencing pain or humiliation. Other common terms with slightly nuanced meanings include, but are certainly not limited to, master, mistress, slave, pet, and brat. In the current

paper, the terms dominant and submissive will be used exclusively for the sake of clarity, but it is important to bear in mind that these terms are not the specific terms preferred by all BDSM practitioners. It is also important to note that while dominants are “in control,” this control may be illusory as many practitioners feel that submissives have just as much control as dominants (Easton & Hardy, 2001).

To further complicate matters, BDSM practitioners may also identify as switches, which means they enjoy taking on both roles. Indeed, some research suggests that the majority of BDSM practitioners switch at least some of the time (Moser & Levitt, 1987; Spengler, 1977). For some people, their orientation is dependent on the gender of their current partner or other factors that change with each partner (Weinberg et al., 1984). Although switch is a unique and equally important orientation, the current study will focus on dominants and submissives to highlight the similarities and differences between orientations that are frequently seen as opposite. In addition, there is also research to support the idea that most people are primarily either dominant or submissive (Breslow, Evans, & Langley, 1985; Connolly, 2006). It is commonly believed that most practitioners are submissive, but once again there is conflicting evidence suggesting that there are roughly equal proportions of dominants and submissives (Baumeister, 1988; Connolly, 2006; Moser & Levitt, 1987).

Previous research suggests that personality characteristics are important predictors of differences in sexual attitudes and behaviours. For example, Bourdage, Lee, Ashton, and Perry (2007) found that extraversion is associated with higher emotional investment and higher self-perceived sexual attractiveness, while honesty-humility and agreeableness are related to higher relationship exclusivity, lower erotophilia, and higher sexual restrictiveness. Extraversion is related to sexual curiosity and sexual excitement for women, while neuroticism is related to sexual curiosity and sexual excitement for men (Heaven, Fitzpatrick, Craig, Kelly, & Sebar, 2000). Individuals who are more adventurous, assertive, excitement-seeking, friendly, or imaginative score higher in sexual motivation (Heaven et al., 2003).

Although personality and sexuality are beginning to be explored in the literature generally, the connection between personality characteristics and BDSM proclivities has received minimal attention. Instead, previous research on the subject has tended to explore BDSM in relation to pathology, such as personality disorders and other psychological disorders. This is likely due to the many stereotypes associated with BDSM, which are often accepted not only by the general public, but also by medical and legal professionals (Richters et al., 2008). In particular, it is commonly believed that those who participate in BDSM must be psychologically disturbed. Despite this, Richters et al. (2008) found that BDSM practitioners scored no higher than the general population on measures of psychological distress, and male BDSM practitioners actually scored significantly lower on psychological distress than other men in their sample. A more in-depth study of the psychological functioning of those who engage in BDSM found that

BDSM practitioners did not differ from the general population in terms of the prevalence of depression, anxiety, or obsessive-compulsive disorder (Connolly, 2006). Furthermore, the sample did not show widespread PTSD, psychological sadism, psychological masochism, or personality disorders, although narcissism, histrionic features, and non-specific dissociative symptoms were more prevalent among BDSM practitioners.

Research that considers the ways in which dominants and submissives differ is lacking. Connolly (2006) did consider the differences between the two groups in terms of psychological functioning and found that submissives scored higher than dominants on a variety of measures, including anxiety, paranoia, and dependence, but were within the normal range for the general population. Furthermore, dominants scored significantly higher than submissives, and above the normative data, on histrionic and narcissistic scales.

Damon (2003) did look at two personality characteristics in male BDSM practitioners: self-esteem and sexism. It was hypothesized that dominants would be higher in sexism and lower in self-esteem; however, it was found that submissives scored significantly higher than dominants on sexism and dominants had significantly higher self-esteem. An older study by Wilson and Gosselin (1980) found that male sadists did not differ from control males in extraversion, but male masochists were slightly introverted and dominant women were more extraverted relative to controls. Male sadists and masochists scored significantly higher on neuroticism than male controls, but not higher than female controls or “clinical neurotics.” This study was later replicated with a focus on sadomasochistic women, but it did not differentiate between sadists and masochists (Gosselin, Wilson, & Barrett, 1991). It was found that these women scored significantly higher on extraversion and lower on neuroticism than controls and were more sexually active.

More recently, Wismeijer and van Assen (2013) explored whether BDSM practitioners differed from controls, and whether dominants differed from submissives, on several important characteristics. They found that BDSM practitioners, as compared to controls, had higher subjective well-being, were more extraverted, open to new experiences, and conscientious, and were less neurotic, agreeable, and sensitive to rejection. Submissives scored higher than dominants on neuroticism, agreeableness, and rejection sensitivity, while dominants scored higher than submissives on openness to experience. Submissives and dominants did not differ on extraversion, conscientiousness, or subjective well-being.

With the exception of the Wismeijer and van Assen (2013) study, the previous research that considers the personality characteristics of BDSM practitioners is limited, focused primarily on variables related to psychological functioning, and rarely differentiates between dominant and submissive practitioners. This is particularly problematic due to the stigma and misconceptions associated with BDSM practitioners: research is needed to examine whether these common beliefs or stereotypes regarding dominants (e.g., dominants lack empathy)

and submissives (e.g., submissives are overly shy) have any basis in reality. Further, the current research will help us understand whether the dominants and submissives are sufficiently distinct that they should be considered separately in future research on BDSM. The current study aimed to contribute to this area of research by comparing dominants and submissives on a broader array of personality characteristics, specifically focusing on the six dimensions of personality as measured by the HEXACO, as well as desire for control, empathy, altruism, self-esteem, and life satisfaction. The HEXACO includes the dimensions of honesty-humility (level of sincerity and modesty), emotionality (level of emotional reactivity, anxiety, and sentimentality), extraversion (level of confidence, comfort, and happiness in social situations), agreeableness (willingness to forgive, compromise, and stay calm), conscientiousness (level of perfectionism, accuracy, and cautiousness and thoroughness in decision-making), openness to experience (level of imagination and appreciation of beauty and knowledge; Lee & Ashton, 2004).

While there is little previous research to direct the hypotheses (The current study was completed before the publication of the Wismeijer and van Assen [2013] study, so their results did not inform our hypotheses.), the selection of variables and hypotheses in the current study was guided by the results of a qualitative study (Hébert & Weaver, manuscript in preparation). We explored the personality characteristics associated with each orientation by asking nine dominants and 12 submissives a variety of questions during semi-structured interviews, including having them describe what parts of their personality made them well-suited for their orientation and the personality traits of a good dominant or submissive overall. In addition, previous research on the intersection of personality and sexuality more generally and existing stereotypes espoused in popular literature about BDSM also contributed to hypothesis formulation. These sources suggest that an individual's preferences within BDSM may reflect aspects of his or her personality in day-to-day life. Being submissive in BDSM scenes may be indicative of a more general desire to help others including those outside of the BDSM scene; thus, higher altruism and empathy. Similarly, submissives stereotypically prefer to follow the will of others, potentially suggesting lower extraversion and higher agreeableness. Dominants, who need to keep a level head and desire a position of control in BDSM scenes, may experience a more general desire for control as well as greater conscientiousness and experience lower levels of honesty-humility and emotionality.

Despite these hypothesized differences, it was expected that there are personality characteristics on which dominants and submissives would not differ. As both orientations choose their roles and express happiness about engaging in them, they were expected to score comparably on self-esteem or life satisfaction. Finally, because both orientations have a clear desire to engage in atypical sexual behaviours that some might shy away from, it was expected that the two groups would not differ in openness to experience. As such, it was hypothesized that dominants

would score higher on desire for control, extraversion, and conscientiousness than submissives (Hypothesis 1). Furthermore, dominants and submissives would not differ on self-esteem, life satisfaction, or openness to experience (Hypothesis 2). Finally, submissives would score higher on empathy, altruism, honesty-humility, emotionality, and agreeableness than dominants (Hypothesis 3). Finally, although we did not hypothesize that there would be gender differences for these relationships, previous research on some of these personality variables (e.g., extraversion) has suggested gender differences. Therefore, potential gender differences for any of these relationships were explored (Research Question 1).

## METHODS

### Participants

Participants had to be at least 18 years of age and self-identify as BDSM practitioners. Furthermore, participants had to identify as primarily a top, dominant, and / or sadist or primarily a bottom, submissive, and / or masochist. Overall 679 people viewed the invitation to participate, but four terminated before beginning the study. Another 337 started the study, but did not respond to enough of the questions to qualify (i.e., left more than 10% of the questions on the scales blank). A further 61 participants had to be excluded because they indicated that they were switches, which meant they did not meet one of the inclusion criteria of the study. Four participants were removed because they indicated that they were under the age of 18, the required minimum age for completing the study. One other participant who did not indicate BDSM orientation was also excluded. Finally two participants were excluded because their scores represented multivariate outliers (Tabachnick & Fidell, 2001).

The final sample included 270 participants, 80 of whom identified primarily as a top, dominant, and / or sadist, and 190 of whom identified primarily as a bottom, submissive, and / or masochist. There were 93 males, 168 females, seven transgendered or intersexed individuals, and two participants who did not give their gender. Participants ranged in age from 18 to 64 and the average age was 25 ( $SD = 6.98$ ). Of these, 82.5% were white, 6.0% were mixed race, 4.9% were Asian, 3.4% were Hispanic, 1.1% were Native, and the remaining 2.2% was composed of other infrequently reported races / ethnicities. Most participants (88.1%) had at least some college or university education and only 1.9% reported having less than a high school education. Most of the participants were heterosexual (61.4%) or bisexual (30.7%); 4.9% identified as gay or lesbian and 3% as questioning. A majority (58.5%) of participants reported being involved in a primary romantic relationship (married, cohabitating, or exclusively dating), 17.8% were seeing at least one person, but not exclusively (nonexclusively dating or friends with benefits relationship), 11.9% were not currently seeing anyone, and the remaining 11.9% indicated "other."

## Measures

**Demographic survey.** The demographic survey included questions on participants' age, gender, race / ethnicity, level of education, sexual orientation, relationship status, and career. There were also several questions regarding BDSM orientation, current and previous BDSM play partners, and the differences between BDSM orientations.

**Shapiro Control Inventory (SCI).** Desire for control was evaluated using the Desire for Control subscale of the Shapiro Control Inventory (Shapiro, 1994). This subscale consists of 11 items assessing one's motivation to be in control, such as, "It is important for me to be in control of myself." Each item is rated on a 6 point Likert scale from Never (1) to Very Often (6) and the mean of all scores in the subscale is calculated so that possible scores for the variable range from 1.0 to 6.0. The Shapiro Control Inventory Desire for Control subscale has been found to have good internal consistency ( $\alpha = 0.76$ ) and test-retest reliability ( $r = 0.82$ ; Shapiro, 1994). The internal consistency in the current study was also good ( $\alpha = 0.81$ ).

**Interpersonal Reactivity Index (IRI).** Empathy was evaluated using the Empathic Concern subscale of the Interpersonal Reactivity Index (Davis, 1983). This subscale consists of seven items assessing concern for others such as "I often have tender, concerned feelings for people less fortunate than me." Each item is rated on a 5 point Likert scale from Does Not Describe Me Well (0) to Describes Me Very Well (4) and each score is summed so that possible scores for the variable range from 0 to 28. The Interpersonal Reactivity Index – Empathic Concern subscale has been found to have good internal consistency ( $\alpha = 0.76$ ; Christopher, Owens, & Stecker, 1993) and the internal consistency in the current study was also good ( $\alpha = 0.86$ ).

**HEXACO-60.** Honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience were all evaluated using the HEXACO-60 (Ashton & Lee, 2009). Each variable has its own subscale consisting of 10 items. The Honesty-Humility subscale consists of items such as "I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed." The Emotionality subscale consists of items such as "I sometimes can't help worrying about little things." The Extraversion subscale consists of items such as "I prefer jobs that involve active social interaction to those that involve working alone." The Agreeableness subscale consists of items such as "I rarely hold a grudge, even against people who have badly wronged me." The Conscientiousness subscale consists of items such as "I plan ahead and organize things, to avoid scrambling at the last minute." Finally, the Openness to Experience subscale consists of items such as "I like people who have unconventional views." Each item is rated on a 5 point Likert scale from Strongly Disagree (1) to Strongly Agree (5) and the mean of all scores in each subscale is calculated so that possible scores on each variable range from 1.0 to 5.0. The HEXACO-60 has been found to have good internal consistency for each of the subscales ( $\alpha = 0.76-0.80$ ; Lee & Ashton, 2004).

and the internal consistency in the current study was also good ( $\alpha = 0.71\text{--}0.82$ ).

**Self-Report Altruism Scale (SRAS).** Altruism was evaluated using the Self-Report Altruism Scale (Rushton, Chrisjohn, & Fekken, 1981). This scale consists of 20 items assessing how often one performs altruistic actions, such as “I have given money to a charity.” Each item is rated on a 5 point Likert scale from Never (0) to Very Often (4) and each score is summed so that possible scores for the variable range from 0 to 80. The Self-Report Altruism Scale has been found to have good internal consistency ( $\alpha = 0.84$ ; Rushton et al., 1981) and the internal consistency in the current study was also good ( $\alpha = 0.89$ ).

**Rosenberg Self-Esteem Scale.** Self-Esteem was evaluated using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). This scale consists of 10 items assessing how one feels about oneself, such as “I am able to do things as well as most other people.” Each item is rated on a 4 point Likert scale from Strongly Disagree (0) to Strongly Agree (3) and each score is summed so that possible scores for the variable range from 0 to 30. The Rosenberg Self-Esteem Scale has been found to have excellent internal consistency ( $\alpha = 0.91$ ; Sinclair et al., 2010) and the internal consistency in the current study was also excellent ( $\alpha = 0.94$ ).

**Satisfaction with Life Scale (SWLS).** Life satisfaction was evaluated using the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). This scale consists of five items assessing how content one is with one’s life, such as “If I could live my life over, I would change almost nothing.” Each item is rated on a 7 point Likert scale from Strongly Disagree (1) to Strongly Agree (7) and each score is summed so that possible scores for the variable range from 5 to 35. The Satisfaction with Life Scale has been found to have good internal consistency ( $\alpha = 0.87$ ) and test-retest reliability (0.82; Diener et al., 1985). The internal consistency in the current study was also good ( $\alpha = 0.85$ ).

## Procedure

Following university Research Ethics Board approval, participant recruitment was done on Reddit.com, which is a social aggregate site that allows users to submit content and vote on the content posted by others to determine its popularity. It is composed of a great variety of “subreddits” or specifically focused forums, several of which were relevant to this particular study: r/BDSM, r/BDSMcommunity, and r/sex. Information about the study and a link to the invitation to participate and questionnaire package was posted in these subreddits. The survey was completed on FluidSurveys.com, a Canadian password protected online survey tool that ensures confidentiality by recording only the participants’ responses to the questions without connecting that data to any personally identifying information.

After reading the invitation to participate, participants were asked if they wished to begin the study with the understanding that this implied consent. If they did continue, they

were directed to fill out a demographic survey and several questionnaires. They were told that they could withdraw at any time without penalty and also could leave any individual questions blank if they did not want to answer particular questions, but did want to continue. A written debriefing was provided following the final questionnaire that included instructions for participants who wished to receive a copy of the results of the research upon study completion. In addition, participants were told to e-mail the primary researcher if they wished to have their name entered into a draw for a prize – either a \$50 gift certificate to Amazon.com or a \$50 donation in their name to a charity supporting healthy sexuality.

## RESULTS

### Descriptive Statistics

The majority of participants indicated that they engaged in BDSM play with their current romantic partner (86.3%), while less than a third (31.4%) reported that they engaged in BDSM play with people other than their romantic partner. Most of the participants (69.5%) had only one current BDSM play partner and some (12.6%) did not have a current BDSM play partner. A substantial minority of the participants had no other BDSM partners before their current partner (38.8%) and the most common number of previous partners was one (19.2%) or two (15%). In addition, most of the participants (60.2%) agreed with the statement “tops/dominants/sadists and bottoms/submissives/masochists have equal power within a scene,” with almost equivalent proportions of the remaining participants agreeing that “tops/dominants/sadists have most of the power within a scene” (19.2%) and “bottoms/submissives/masochists have most of the power within a scene” (20.7%).

Compared with normative data, dominants and submissives fell within the normal range for Honesty-Humility, Emotionality, Extraversion, Agreeableness, and Conscientiousness (Lee & Ashton, 2004). Both orientations also fell within the normal range for Desire for Control (Shapiro, 1994), Self-Esteem (Sinclair et al., 2010), Life Satisfaction (Diener et al., 1985), and Empathy (Banissy, Kanai, Walsh, & Rees, 2012) compared with data from adult samples. Dominants and submissives scored lower than normative data on altruism (Rushton et al., 1981) and submissives, but not dominants, scored slightly higher than the normative data on openness to experience (Lee & Ashton, 2004).

To explore the relationships between the personality characteristics, a series of Pearson’s correlations were conducted (See Table 1). Desire for Control was significantly positively correlated with Extraversion, Conscientiousness, Altruism, and Self-Esteem and significantly negatively correlated with Honesty-Humility and Agreeableness. Empathy was significantly positively correlated with Honesty-Humility, Emotionality, Extraversion, Agreeableness, Openness to Experience, and Altruism. Honesty-Humility was significantly positively

Table 1. Pearson's Correlations between Personality Characteristic Variables

	1	2	3	4	5	6	7	8	9	10	11
(1) Desire for Control	—	.053	-.148*	-.006	.155**	-.248**	.396**	.110	.184**	.160**	.079
(2) Empathy		—	.234**	.574**	.140*	.237**	.002	.297**	.392**	-.012	.014
(3) Honesty-Humility			—	.121*	-.065	.248**	.110	.093	.092	.093	.154*
(4) Emotionality				—	-.201**	.044	-.047	.092	.032	-.367**	-.178**
(5) Extraversion					—	.143*	.115	.158**	.371**	.641**	.488**
(6) Agreeableness						—	.018	.106	.111	.152*	.123*
(7) Conscientiousness							—	.103	.095	.321**	.247**
(8) Openness to Experience								—	.363**	.156*	.088
(9) Altruism									—	.208**	.175**
(10) Self-Esteem										—	.606**
(11) Life Satisfaction											—

\*  $p < .05$ \*\* $p < .01$  $N = 270$ 

correlated with Emotionality, Agreeableness, and Life Satisfaction. Emotionality was significantly negatively correlated with Extraversion, Self-Esteem, and Life Satisfaction. Extraversion was significantly positively correlated with Agreeableness, Openness to Experience, Altruism, Self-Esteem, and Life Satisfaction. Agreeableness was significantly positively correlated with Self-Esteem and Life Satisfaction. Conscientiousness was significantly positively correlated with Self-Esteem and Life Satisfaction. Openness to Experience was significantly positively correlated with Altruism and Self-Esteem. Altruism was significantly positively correlated with Self-Esteem and Life Satisfaction. Lastly, Self-Esteem was significantly positively correlated with Life Satisfaction.

### Hypothesis Testing

It was hypothesized that dominants would score higher on Desire for Control, Extraversion, and Conscientiousness than submissives, dominants and submissives would not differ on Self-Esteem, Life Satisfaction, or Openness to Experience, and submissives would score higher on Empathy, Altruism, Honesty-Humility, Emotionality, and Agreeableness than dominants. In addition, gender was included as a factor in the primary analysis to explore the research question. Two participants who did not report their gender were excluded from hypothesis testing. A further seven participants had to be excluded from hypothesis testing because they identified as transgender or intersex and there was insufficient statistical power to analyze these additional gender categories. As such, 261 participants were included in hypothesis testing (77 dominants [70 males and 7 females] and 184 submissives [23 males and 161 females]; 93 males and 168 females).

The General Linear Model program of SPSS was used, with BDSM Orientation and gender as fixed factors and the personality characteristics as dependent variables. Examination of the Box's M (Box's  $M = 123.63$ ,  $p = .94$ ) demonstrated that the covariance matrices did not differ significantly, and we could proceed with the analysis using the General Linear Model.

A significant multivariate main effect for gender was found,  $\Lambda = 0.91$ ,  $\eta_p^2 = .095$ ,  $F(11, 247) = 2.35$ ,  $p = .009$ . A significant multivariate main effect for BDSM orientation was found,  $\Lambda = 0.90$ ,  $\eta_p^2 = .10$ ,  $F(11, 247) = 2.55$ ,  $p = .004$ . No significant interaction between gender and BDSM orientation was found,  $\Lambda = 0.94$ ,  $F(11, 247) = 1.43$ ,  $p = .16$ .

Tests of between-subject effects for gender revealed that females scored higher on Empathy ( $M = 19.92$ ,  $SD = 5.49$ ) than males ( $M = 17.18$ ,  $SD = 6.04$ ),  $F(1, 257) = 4.20$ ,  $p = .04$ , higher on Emotionality ( $M = 3.48$ ,  $SD = 0.65$ ) than males ( $M = 2.69$ ,  $SD = 0.61$ ),  $F(1, 257) = 14.72$ ,  $p < .001$ , and higher on Openness to Experience ( $M = 3.98$ ,  $SD = 0.56$ ) than males ( $M = 3.89$ ,  $SD = 0.56$ ),  $F(1, 257) = 5.39$ ,  $p = .02$ . No significant differences were found between females and males on Desire for Control, Extraversion, Self-Esteem, Life Satisfaction, Honesty-Humility, Conscientiousness, Altruism, or Agreeableness.

Tests of between subject effects for BDSM orientation revealed that, as hypothesized, dominants scored higher in Desire for Control ( $M = 4.36$ ,  $SD = 0.59$ ) than submissives ( $M = 4.06$ ,  $SD = 0.83$ ),  $F(1, 257) = 7.64$ ,  $p = .006$ , and higher on Extraversion ( $M = 3.45$ ,  $SD = 0.65$ ) than submissives ( $M = 2.94$ ,  $SD = 0.73$ ),  $F(1, 257) = 7.90$ ,  $p = .005$  (See Table 2). Differences in Self-Esteem and Life Satisfaction were not predicted, but dominants scored higher on Self-Esteem ( $M = 21.20$ ,  $SD = 5.81$ ) than submissives ( $M = 17.52$ ,  $SD = 6.71$ ),  $F(1, 257) = 4.73$ ,  $p = .03$  and higher on Life Satisfaction ( $M = 23.30$ ,  $SD = 6.80$ ) than submissives ( $M = 20.28$ ,  $SD = 7.28$ ),  $F(1, 257) = 9.25$ ,  $p = .003$ . As hypothesized, submissives scored higher on Emotionality ( $M = 3.42$ ,  $SD = 0.66$ ) than dominants ( $M = 2.66$ ,  $SD = 0.65$ ),  $F(1, 257) = 5.31$ ,  $p = .02$ . Finally, no significant differences were found between dominants and submissives on Empathy, Honesty-Humility, Openness to Experience, Conscientiousness, Altruism, or Agreeableness.

The finding that dominants were higher on self-esteem and life satisfaction than submissives was not hypothesized.

Table 2. Between Group Effects for BDSM Orientation

	Means and Standard Deviations		<i>F</i>	<i>Partial Eta Squared</i>	<i>Cohen's d</i>
	Dominants ( <i>n</i> = 77)	Submissives ( <i>n</i> = 184)			
Desire for Control	4.36 (0.59)	4.06 (0.83)	7.64**	.029	0.41
Empathy	17.08 (6.05)	19.72 (5.57)	0.16	.001	-0.45
Honesty-Humility	3.22 (0.68)	3.35 (0.69)	0.30	.001	-0.19
Emotionality	2.66 (0.65)	3.42 (0.66)	5.31*	.020	-1.16
Extraversion	3.45 (0.65)	2.94 (0.73)	7.90**	.030	0.74
Agreeableness	3.08 (0.59)	3.07 (0.66)	0.34	.001	0.02
Conscientiousness	3.56 (0.62)	3.56 (0.64)	0.07	.001	0.00
Openness to Experience	3.92 (0.59)	3.96 (0.54)	2.59	.010	-0.07
Altruism	36.54 (12.98)	34.25 (12.33)	1.02	.004	0.18
Self-Esteem	21.20 (5.81)	17.52 (6.71)	4.73*	.018	0.59
Life Satisfaction	23.30 (6.80)	20.28 (7.28)	9.25**	.035	0.43

\*  $p < .05$ \*\* $p < .01$  $N = 261$ 

Given the positive correlations between extraversion and both self-esteem and life satisfaction and the fact that levels of each of these personality characteristics was higher among dominants, exploratory analysis was conducted to examine whether self-esteem and life satisfaction were uniquely associated with BDSM orientation, or whether higher levels of extraversion, which is known to be correlated with both self-esteem and life satisfaction (Kwan, Bond, & Singelis, 1997), might explain these higher levels among dominants. Hierarchical regression analyses were conducted in which extraversion was entered at Step 1 and BDSM orientation at Step 2. Once level of extraversion was controlled, BDSM orientation was no longer associated with self-esteem or with life satisfaction.

## DISCUSSION

The aim of the current study was to contribute to the limited literature on the personality characteristics of BDSM practitioners by comparing dominants and submissives on several personality characteristics. Previous research on personality and BDSM is limited and has tended to lump these orientations together, as though they were homogenous groups. The personality characteristics that were measured were selected based on a qualitative study (Hébert & Weaver, manuscript in preparation), research on personality and sexuality generally, and stereotypes described in popular literature on BDSM.

It was hypothesized that dominants would score higher on desire for control, extraversion, and conscientiousness than submissives and this hypothesis was partially confirmed. Dominants did score significantly higher on desire for control than submissives, which makes intuitive sense because dominants choose to take the controlling role in BDSM play. In Hébert and Weaver's (manuscript in preparation) qualitative study, dominants expressed great pleasure in being able to control the situation and reported this as one of the main

benefits of BDSM. It is notable that while dominants reported higher desire for control than submissives, both were still within the normal range on this variable. In addition, the majority of participants reported that they believed dominants and submissives have equal power in the actual scene. This is somewhat surprising because dominants are defined by a strong desire for control, while submissives are conversely defined by a desire to relinquish control. It would appear that BDSM is simply one possible outlet that people may choose when they wish to express or suppress their typical control, rather than something people with abnormal levels of desire for control feel compelled to do. This can be seen as evidence against the stereotype that dominance in BDSM reflects an abnormal desire for control while submissive preferences indicate an abnormal desire to give up control.

Further supporting Hypothesis 1, dominants scored significantly higher than submissives on extraversion. While submissives like to give over their power within BDSM play, dominants like to assert theirs. This ability to assert oneself may be related to greater extraversion, indeed, assertiveness is commonly considered a facet of extraversion (Heaven et al., 2003), in that dominants may require greater confidence to direct BDSM play and oversee its success. This finding is similar to research by Wilson and Gosselin (1980), who reported that masochists were more introverted than sadists. The finding that dominants were higher on extraversion contradicts the Wismeijer and van Assen's (2013) study, which found no difference between dominants and submissives on extraversion. Once again, both groups were still within the normal range for extraversion, indicating that dominance does not require abnormally high levels of extraversion, nor does submission suggest abnormally low levels (Lee & Ashton, 2004).

The hypothesis that dominants would score higher in conscientiousness was not confirmed. It was expected that dominants would report higher levels of conscientiousness because the dominants in Hébert and Weaver (manuscript in

preparation) reported that they like having things done their way and enjoyed controlling aspects of BDSM play. While it was surprising that this was not found, it could be because submissives must also be very careful to engage in safe BDSM play, but their time to do this occurs during pre-play negotiations, rather than during the scene itself. Wismeijer and van Assen (2013) also found that dominants and submissives did not differ on conscientiousness.

The second hypothesis was that dominants and submissives would not differ on self-esteem, life satisfaction, or openness to experience. This hypothesis was also only partially confirmed. Dominants were actually found to be higher on self-esteem than submissives, which was also found by Damon (2003). It was expected that self-esteem would not differ between the groups because Hébert and Weaver (manuscript in preparation) suggested that both orientations reported numerous benefits to BDSM play. Dominants mentioned the importance of looking after their submissives' needs, which presumably includes giving submissives their approval. Perhaps dominants have higher self-esteem because they receive more validation within BDSM play, even though both orientations may be equally validated outside of play. Previous research shows that extraversion is highly correlated with self-esteem (Kwan et al., 1997) and exploratory analysis suggested that the link between self-esteem and extraversion may explain the relationship in our sample. When extraversion was controlled for, self-esteem no longer differed by BDSM orientation. It is important to note that while submissives had lower self-esteem than dominants, their scores were not outside of the normal range; thus this finding does not suggest that either BDSM role is associated with lowered self-esteem (Sinclair et al., 2010).

Similarly, dominants scored significantly higher on life satisfaction than submissives. It was predicted that the two orientations would not differ because there was no particular reason based on previous literature to expect one group to differ from the other and participants of the qualitative study unanimously agreed that they found a lot of satisfaction in BDSM play. In addition, Wismeijer and van Assen (2013) found that dominants and submissives did not differ in subjective well-being, a similar construct. As with self-esteem, it is possible that this is due to extraversion, which previous research has found to be highly correlated with life satisfaction (Kwan et al., 1997). Exploratory analysis in which extraversion was controlled for revealed that life satisfaction no longer differed significantly by BDSM orientation. Moreover, even though submissives had lower life satisfaction than dominants, neither scored lower than normative data (Diener et al., 1985).

The final portion of Hypothesis 2 was supported: the orientations did not differ on openness to experience. This contradicts Wismeijer and van Assen (2013), which found that dominants are higher on openness to experience. What is perhaps more surprising is that only submissives in the current study scored higher than the normative data for openness to experience. BDSM practitioners have obviously explored alternative sexual experiences, so it would be reasonable to

expect a greater openness to experience. Perhaps the reason this was not found was because the HEXACO-60 Openness to Experience subscale is more focused on appreciation for art, beauty, and knowledge, rather than openness to explore new, even risqué, experiences (Ashton & Lee, 2009).

The final hypothesis was that submissives would score higher on empathy, altruism, honesty-humility, emotionality, and agreeableness than dominants. This hypothesis also received partial support. Submissives did not score significantly higher on empathy than dominants and both groups fell within the normal range for empathy when compared with scale norms (Banissy et al., 2012). Although we had predicted differences between dominants and submissives on levels of empathy based on common stereotypes, these findings could be seen as consistent with Hébert & Weaver (manuscript in preparation), in which submissives commonly described themselves as people-pleasers and the most commonly reported characteristic of dominants, even above desire and ability to take control, was empathy and nurturance.

Dominants and submissives did not differ on altruism and actually scored lower than normative data (Rushton et al., 1981). This was very surprising, especially because being people-pleasing is often identified as a characteristic of submissives. While more research is needed to determine exactly why this is the case, it is possible that it is due to the stigma that BDSM practitioners face. Previous research has demonstrated that persecuted groups have a tendency to avoid out-group members and orient toward other members of their group (Plant & Devine, 2003). The Self-Report Altruism Scale is entirely focused on how frequently one helps strangers, not friends and family (Rushton et al., 1981). Perhaps BDSM practitioners have negative experiences of judgments from those outside the BDSM community.

Submissives did not score higher than dominants on honesty-humility. It was expected that they would because within BDSM play submissives seek a symbolically subordinate position relative to dominants; however, it would seem that the power differences chosen during BDSM play do not necessarily equate to general personality differences. In addition, both groups fell within the normal range of honesty-humility, therefore neither the submissives' subservience during BDSM play, nor the dominants' simulated superiority, reflect an abnormal level of honesty-humility (Lee & Ashton, 2004).

Submissives also scored significantly higher on emotionality than dominants. This is consistent with Wismeijer and van Assen's (2013) finding that submissives are higher than dominants in neuroticism, which is a similar personality characteristic. Dominants describe the importance of keeping a level head and remaining calm during BDSM play. It is worth noting that, while there were differences between the two groups, their scores fell within the normative range (Lee & Ashton, 2004).

The final part of the third hypothesis was not confirmed: submissives did not score higher on agreeableness than dominants. Although Wismeijer and van Assen (2013) found that submissives were higher than dominants on this personality

variable, a primary benefit of BDSM for both orientations reported in a qualitative study was the pleasure they gained from pleasing their partner (Hébert & Weaver, manuscript in preparation). Further, successful negotiation of a BDSM scene would require open communication. As such, it would seem that agreeableness is important to both orientations. Furthermore, submissives may be more agreeable during BDSM play, but both have to be willing to compromise during the negotiations. Indeed, most of the participants in the current study believe that dominants and submissives have equal power; thus, both orientations must be willing to cooperate. Once again, both orientations fell within the normal range for agreeableness (Lee & Ashton, 2004).

In addition to helping to elucidate some of the personality characteristics associated with dominant and submissive BDSM orientations, this study showed more generally that these differences do exist and BDSM practitioners cannot be considered a homogenous group. Future research on BDSM should consider practitioners both as a group, and separately by BDSM preference, to get a fuller, more thorough picture of BDSM practitioners. Furthermore, the fact that both orientations scored in the normal range compared to adult samples on all measured personality characteristics aside from altruism (both scored lower than normative data), can be seen as evidence against the common belief that BDSM is pathological. The public likely has distorted perceptions of BDSM and those who practice it and sexual sadism and sexual masochism are classified as paraphilias, which could encourage misconceptions and discrimination (American Psychiatric Association, 2000; Wright, 2006). The findings that BDSM practitioners do not differ from normative data on a wide variety of personality characteristics suggest that BDSM practitioners are perhaps not so different from people who do not practice BDSM.

### Limitations and Future Research

The sample of the current study contained more than twice as many submissives as dominants, which may have left dominants somewhat underrepresented. Some researchers believe that there are more submissives than dominants overall, so this may be reflective of a greater proportion of submissives in the population (Baumeister, 1988). There were more male dominants in our sample than female dominants and more female submissives than male submissives. Future studies with sufficient representation in each sub-group will better enable the examination of gender versus BDSM orientation differences. The proportion of participants who identified as bisexuals outnumbered participants who identified as gay or lesbian by over 6:1; however, this is consistent with Connolly (2006) who reported that BDSM practitioners were almost four times more likely to be bisexual than gay or lesbian. Another potential limitation is that no measure of socially desirable responding was included; however, given that all of the participants engaged in alternative sexual experiences, there is no reason to believe that one orientation would be more motivated to respond in a socially desirable manner.

The current research was based on an online questionnaire and recruitment was primarily done via Reddit.com. Although online surveys are commonly used for research into alternative populations, our sample may not represent the overall population of BDSM practitioners. Also, although we compared our participants to scale norms for various personality measures, future research should include a group of non-BDSM practitioners for comparison.

The current study grouped BDSM participants into only two orientations for the sake of comparison, but this is an oversimplification. Popular literature on BDSM, by and for practitioners, suggest that there are numerous primary orientations such as dominants, submissives, tops, bottoms, sadists, and masochists, as well as and many other more subtle distinctions (e.g., boi, pet, master). The orientations that were merged to create the two groups used definitely have some similarities to each other, but they are not the same. As such, it is possible that finer distinctions of BDSM preferences would reveal different patterns of personality characteristics. Future research that considers a more detailed conceptualization of orientation is warranted.

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