

The Brief Survey of Interpersonal Exploitative Behavior: Preliminary Development and Validation

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Abstract

The development and preliminary validation of a new measure of interpersonal exploitativeness, i.e., Brief Survey of Interpersonal Exploitative Behavior (BSIEB), is described in two studies. Interpersonal exploitativeness is a transdiagnostic feature of Narcissistic Personality Disorder and Antisocial Personality Disorder. The BSIEB focuses on instantiating interpersonal exploitative behavior by surveying specific, "real world" exploitative behaviors. In Study 1, an item pool was generated by 50 Amazon Mechanical Turk (MTurk) participants. Inter-rater reliability was assessed via independent ratings from a second group of MTurk participants. The BSIEB was administered to a new sample of 508 adults (64.5% males; $M_{age} = 37.1$). The BSIEB demonstrated excellent internal consistency reliability (Cronbach's $\alpha = .94$) and convergent validity ($r = .64$) with a measure of exploitativeness based on the Five-Factor Model of personality. A 1-factor measurement model fit well and was invariant for gender. In Study 2, the BSIEB demonstrated convergent validity with other measures of exploitativeness and incremental validity, registering the most significant share of unique variance in predicting the outcome variables of social aggression and alcohol and substance use, which are associated with narcissism and antisocial personality disorder. The results support using the BSIEB as a valid research measure that expands construct coverage of interpersonal exploitative behavior.

Keywords: interpersonal exploitativeness, narcissism, antisocial personality disorder, incremental validity

1. Introduction

Exploitative behavior, particularly of an interpersonal nature, is a conspicuous feature of the construct of narcissism (Ackerman et al., 2011; Ackerman, Donnellan, & Robins, 2012; Glover, Miller, Lynam, Crego, & Widiger, 2012; Miller, Lynam, Hyatt, & Campbell, 2017), and of narcissistic personality disorder (NPD) (Diagnostic and Statistical Manual of Mental Disorders, 5th ed.; DSM-5; American Psychiatric Association, 2013). Exploitative orientation is defined in the American Psychological Association Dictionary of Psychology (2023) as "... a character pattern marked by using stealth, deceit, power or violence to obtain what the individual wants." Exploitativeness appears in the DSM-5 as a transdiagnostic feature of Narcissistic Personality Disorder (NPD) and Antisocial Personality Disorder (ASPD), due at least partly to the lack of empathy and interpersonal exploitation to achieve one's goals, which characterizes both personality disorders. Some researchers have suggested that entitlement and exploitativeness are narcissism's most maladaptive, socially noxious, and even "toxic" features (Ackerman et al., 2011; Raskin & Novackek, 1989; Reidy, 2008). Clinically relevant features associated with exploitativeness include antisocial tendencies, poor quality of relationships, relational aggression, bullying behavior in youth (Lau, 2010), ethical violations, risk-taking behavior, e.g., sexual, financial, as well as alcohol and drug-related risk behavior (Ackerman et al., 2011; Brunell & Buelow, 2018; Buelow & Brunell, 2014; Kealy, Ogrodniczuk, Rice, & Oliffe, 2017; Morf & Rhodewalt, 2001; Vazire & Funder, 2006). Such features are overlapping behavioral manifestations of NPD and ASPD.

1.1 Interpersonal Exploitativeness as a Lower-Order Personality Trait Subsumed within Multidimensional Narcissism Inventories

From the perspective of a hierarchical structure of personality traits (see Anglim & O'Connor, 2019, and Clark & Watson, 2019, for discussions of a hierarchical ordering of psychological constructs), interpersonal exploitativeness is a lower-order or narrow trait subsumed within a broader or superordinate construct. The Five-Factor Narcissism Inventory (FFNI; Glover, Miller, Lynam, Crego, & Widiger, 2012) is a multidimensional self-report measure of narcissism that assesses traits associated with NPD from the perspective of the five-factor

model (FFM) of personality. As such, the FFNI was developed following a predominant contemporary theoretical model of personality with solid empirical support. The FFNI includes 15 FFM trait subscales related to the grandiose and vulnerable narcissism composites, which yield three higher-order, empirically derived factors, i.e., Antagonism, Agentic Extraversion, and Neuroticism. The Exploitative subscale is subsumed within the broad personality domain of Agreeableness versus Antagonism. The FFNI Exploitative subscale is “opposite to altruism: a disposition to exploit or take advantage of others” (Miller et al., 2013). Exploitativeness loads strongly on the Antagonism factor, as do subscales such as Lack of Empathy, Entitlement, Arrogance, and Manipulativeness. Not surprisingly, the preceding subscales have demonstrated high intercorrelations (Miller et al., 2016). Vize et al. (2019) demonstrated that, compared to Agentic Extraversion and Neuroticism, Antagonism was the best predictor of reactive and proactive aggression, peer-directed relational aggression, and romantic relational aggression. Among the Antagonism subscales, Exploitativeness was the best predictor of reactive and proactive aggression in one sample. In contrast, Thrill Seeking and Manipulativeness were the strongest predictors of antisocial behavior in a second sample.

The Pathological Narcissism Inventory (PNI; Pincus et al., 2009), another self-report, multidimensional assessment instrument, measures traits associated with grandiose and vulnerable narcissism but is not based on the FFM. The PNI comprises seven dimensions of narcissism, including Exploitativeness, which reflects a manipulative interpersonal orientation.

Another multidimensional measure of narcissism is the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), the oldest of these measures of narcissism. The NPI, which has been utilized extensively in research over the past four decades, mainly in non-clinical samples, is composed of three underlying dimensions, i.e., Leadership/Authority, Grandiose Exhibitionism, and Entitlement/Exploitativeness. Overall, psychometric properties of the NPI, and the entitlement/exploitativeness subscale (EE), in particular, have been called into question. The EE subscale consists of only four items and has demonstrated low internal consistency reliability (e.g., Ackerman et al., 2012; Brunell et al., 2013; Krizan & Herlache, 2017). However, Miller, Price, and Campbell (2011) demonstrated that, compared to three other current measures of grandiosity and entitlement, the NPI had the highest correlation with an FFM personality profile of NPD. The NPI also added incremental validity over and above the three other measures in predicting the variance of scores on FFM traits. Miller et al. concluded that the NPI continues to provide valid measurements of traits central to narcissism, including dominance, manipulativeness, immodesty, and non-compliance. Nevertheless, compared to other measures of exploitativeness, the advantages of the NPI EE subscale in predicting external variables have yet to be established.

1.2 Advantages of Homogeneous Measurement Scales

Some researchers (e.g., Brown et al., 2009; Brunell & Buelow, 2018; Crowe et al., 2018) have argued that using homogeneous measurement scales can be advantageous in uncovering which facets of narcissism optimally predict different outcome variables. Narrow traits have better predictive validity than broad traits (see Anglim & O'Connor, 2019). Using a principal components analysis (PCA), Brunell and Buelow (2018) found that items from unidimensional measures of grandiosity, entitlement, and exploitativeness yielded three separate components with all but one item loading on their respective component. Additionally, the three measurement scales had differential associations with external variables such as extraversion, agreeableness, depression, and anxiety. Buelow and Brunell (2014) found differential relationships between grandiosity, entitlement, and exploitativeness with outcome measures, e.g., exploitativeness was differentially related to ethical and financial behaviors. Brunell et al. (2013), using a commons dilemma method (in which individuals in a group make resource management decisions such that placing one's self-interest above all others eventually causes the deterioration or destruction of the resource for the entire group), found that individuals who scored higher on a measure of interpersonal exploitativeness were more likely to amass a more significant share of resources over time, even when controlling for other variables. Currently, only the Interpersonal Exploitativeness Scale (IES; Brunell et al., 2013) conceptualizes exploitativeness as a distinct unidimensional trait rather than a facet of narcissism.

1.3 Overlap of Item Content in Existing Measures of Exploitativeness

A review by this researcher of the currently available measures of exploitativeness finds similar item content across these measures. Many, if not most, of the items across such measures reference “using,” “taking advantage of,” “benefitting from,” or “profiting at the expense of others,” including those who are naïve or vulnerable, as tactics to obtain one's desires, achieve success, or meet one's goals. Many of the items also emphasize feeling undisturbed or without guilt in using others as tools. Furthermore, scales or subscales of

exploitativeness, manipulativeness, or deceitfulness, comprised within measures not specific to exploitativeness or narcissism, e.g., the Elemental Psychopathy Assessment (EPA; Lynam et al., 2010) and the Personality Inventory for DSM-5 (PID-5; Krueger et al., 2012), which measure psychopathic and pathological personality traits, respectively, include items of similar content to the scales measuring exploitativeness. Many of the items reference the use of “conning,” “deceiving,” “lying,” and “taking advantage of” others to obtain or achieve one’s desires. While the validity of measures including the FFNI, NPI, PNI, IES, EPA, and PID-5 has accumulated over time (i.e., structural, convergent, discriminant, predictive, or incremental validity), it is nevertheless noteworthy that there is much overlap of item content across these measures that are related to exploitativeness. Therefore, the distinct advantages of any of these measures in predicting external variables associated with exploitativeness are unclear.

1.4 The Need for Assessment of ‘Real World’ Exploitative Behaviors

Some researchers have recommended that the study of narcissism requires a focus on its behavioral manifestations in everyday life (e.g., Baumeister, Vohs, & Funder, 2007; Buss & Chiodo, 1991; Holtzman, Vazire, & Mehl, 2010; Krizan & Herlache, 2017). Krizan and Herlache (2017) assert that narcissistic pathology involves significant interpersonal, behavioral, and intrapsychic components. Buss and Chiodo (1991) conducted a series of studies of narcissism utilizing an “act frequency approach,” along with a traditional phenomenological measurement approach, to provide a comprehensive depiction of narcissism. The act frequency approach involved developing a large pool of narcissism exemplars (e.g., “I boasted about my abilities and intelligence”; “I laughed about my friend’s problems”). Undergraduate students and “experts” (Ph.D. students) provided act nominations, and prototypical narcissistic acts were identified that corresponded with the seven descriptive criteria of narcissism in the DSM-III (1980) 3rd ed. and the DSM-III-R (1987) 3rd ed., revised. Narcissism was displayed differentially between men and women (e.g., greater expression of lack of empathy in men, greater expression of extreme concern with physical appearance in women). Holtzman, Vazire, and Mehl (2010) utilized a naturalistic behavioral observation methodology (Electronically Activated Recorder ([EAR]) in a sample of college undergraduates to enhance ecological validity in the study of narcissism. Narcissism, as measured by the NPI, was found to be associated with more extraverted behavior (albeit not on the entitlement/exploitative factor), more disagreeable behavior, more sexual language usage, and more academic disengagement, i.e., skipping class (associated significantly with the entitlement/exploitative factor only, even when controlling for conscientiousness).

1.5 Purpose of Current Study

No existing measure of narcissism includes a behavioral paradigm of interpersonal exploitative behavior. The current studies concern the development by this author and preliminary validation of a new measure of a lower-order personality trait of interpersonal exploitativeness. This measure focuses on instantiating interpersonal exploitative behavior through surveying specific, “real world” exploitative behaviors. Titled the “Brief Survey of Interpersonal Exploitative Behavior” (BSIEB), this measure conceptualizes exploitativeness as a component of the broad dimension of antagonism, thus similar to Miller et al.’s (2013) conceptualization of exploitativeness, as well as a feature of narcissistic and antisocial personality traits. This perspective links exploitativeness with the well-established FFM model of personality. Antagonism, from the FFM frame of reference, is essential to both Grandiose and Vulnerable narcissism (Miller et al., 2016) and is a core component also of psychopathy (e.g., Lynam et al., 2011; Miller & Lynam, 2015; O’Boyle, Forsyth, Banks, Story & White, 2015). At the same time, the BSIEB is operationalized as a unidimensional, stand-alone measure, similar to the IES. As noted earlier, narrow traits generally are better predictors of outcomes than broad traits, especially when the outcome variables are narrow.

Treatment approaches for NPD and narcissistic and other antagonistic personality characteristics should benefit from optimal assessments of their attributes. Indeed, a broad goal of clinical assessment is the identification of the connections between diagnostic classifications and their manifestations in everyday behavior (Baumeister et al., 2007; Buss & Craik, 1986). Broader, multidimensional constructs require specific measures of their lower-level components (Clark & Watson, 2019). Focus on the behavioral expression of exploitativeness may sharpen its assessment. Development of the BSIEB provides an opportunity to test whether a measure of exploitativeness composed of behavior-specific items offers any advantages over measures based on more general attitudes or types of behavior comprised in the scales previously discussed.

The BSIEB would demonstrate preliminary validity based upon criteria including demonstrating a unidimensional model invariant for gender, convergence with other exploitativeness measures, prediction of relevant outcome variables, and accounting for additional unique variance in outcome measures beyond the

predictive effects of other measures of exploitativeness. In study 1, developing an item pool to measure exploitativeness utilized an inductive approach in which Amazon Mechanical Turk (MTurk) participants generated items based on the author's description of interpersonal exploitativeness. This approach was similar to Buss and Chiodo's (1991) method of generating exemplars of narcissism. Amazon Mechanical Turk (referred to hereafter as MTurk) is an online crowdsourcing platform that has become popular as a resource for psychological and behavioral research data among social scientists (Paolacci & Chandler, 2014). Ratings of the degree to which items represented exploitativeness were obtained from a new sample of MTurk participants, and inter-rater reliability (IRR) was calculated. A study by Miller, Lynam, Siedor, Crowe, and Campbell (2018) supports using laypersons to rate the degree to which items represent narcissism. Miller et al. (2018) found that ratings of prototypical cases of narcissism by laypersons were quite similar to ratings provided by clinicians and academic professionals. In the current study, descriptive data were obtained, and the bivariate correlation of the 10-item BSIEB with a validated measure of narcissism (FFNI exploitativeness scale) was determined. Confirmatory Factor Analysis (CFA) was used to confirm that a single factor accounted for the underlying structure of the BSIEB. If the measurement model demonstrated a good fit, the model would be tested for measurement invariance for gender. A new sample of MTurk workers was recruited in Study 2; the BSIEB and other measures of interpersonal exploitativeness were administered. The first objective was to test the convergent validity of the BSIEB. Second, the BSIEB was tested to determine whether it can generate additional predictive power, i.e., incremental validity, beyond the other measures in predicting two dependent variables, i.e., social aggression and alcohol and substance use.

2. Study 1

2.1 Method

2.1.1 Study Participants and Procedure

An initial sample of participants ($N = 50$) recruited from MTurk was provided with a brief description of interpersonal exploitative behavior ("Some people take advantage of, or exploit other people for their own benefit or gain, without genuine concern for the other person. People may exploit or take advantage of others in various situations, such as in work or school settings, romantic relationships, business relationships, and other personal or friendship relationships". The participants were requested to provide five examples of how someone might pressure or exploit another person, and they were instructed not to include using physical threats to coerce someone to do something. The resulting items were sorted by this researcher so that redundant items, items judged to be more peripheral to exploitative behavior, and items that did not relate to the task were separated. Ratings of the remaining items were obtained from a new sample of MTurk workers. An explanation of interpersonal exploitative behavior was provided to the workers. They were requested to rate the degree to which each item represented exploitativeness, using a 5-point, Likert-type scale, ranging from "strongly represents" to "does not represent at all." Inter-rater reliability (IRR) was assessed by randomly selecting three independent raters, and a two-way mixed, absolute agreement average measure Intraclass Correlation Coefficient was determined. With an a priori intention of forming a 10-item scale, items with the highest mean ratings were retained for the current version of the BSIEB.

Subsequently, a new sample of participants was recruited through MTurk. The BSIEB was administered to this sample. Before screening the data, the sample included 626 participants (64.5% males). The following demographic information was analyzed from the final sample ($N = 508$). The mean age of participants was 36.6 ($SD = 10$); 81.1% of participants identified as white; 13.4% identified as African-American or black; 3.3% identified as Asian; 0.4% identified as Multiple Races, and 0.8% identified as American Indian or Alaskan Native. Regarding the highest level of education completed, 4.3% reported having graduated from high school; 15.3% reported having attended some college; 65% reported graduating from college; 4.9% reported having attended some graduate school, and 8.7% reported completing graduate school.

Participants were directed to a link at SurveyMonkey, where a brief description of the study and elements contained in the framework for informed consent preceded the survey content. Two attention check items were embedded in the survey. Data were excluded from analyses in cases where either item was incorrect. The final sample included 508 participants (65.2% males). Missing item data across cases for the BSIEB and the Five-Factor Narcissism Inventory ranged between 0.2% and 2%. Little's Missing Completely at Random (MCAR) test found that missing data for all items were missing completely at random ($p = .482$). Given the low percentage of missing data, any imputation method can be applied (Hair et al., 2010). Missing values were imputed using a linear trend at point regression method. Hair et al. (2010) discuss the advantages and disadvantages of this method.

2.1.2 Measures

(1) Brief Survey of Interpersonal Exploitative Behavior (BSIEB)

The BSIEB is a 10-item measure that uses a 5-point Likert-type response format, with responses ranging from “Strongly disagree” to “Strongly agree” (see Appendix). The instructions for completing the scale request the respondent to indicate how often s/he has done each behavior since s/he was 18 (in Study 2, the time frame was changed to “in the past year”). Each item is preceded by the stem sentence “I have tried to persuade or pressure someone to...”. Examples of items include “Break up with, or cheat on a romantic partner and go out with me”; “Have sex/do something intimate with me even after the other person said s/he is not comfortable or did not want to”; “Lend money to me that I knew I would not repay any time soon, if ever.” The instructions do not reference the use of threats or physical force.

(2) Five-Factor Narcissism Inventory

Five-Factor Narcissism Inventory (FFNI; Glover et al., 2012) is a 148-item self-report measure that assesses grandiose and vulnerable narcissism traits from the Five-Factor Model of Personality perspective. The 10-item Exploitativeness subscale was used in the current study. The FFNI uses a 5-point Likert-type response format, ranging from “strongly disagree” to “strongly agree.”

2.1.3 Data Analyses

Psychometric properties of the BSIEB, including descriptive (mean, standard deviation, skewness, kurtosis), internal consistency reliability (Cronbach’s α), and bivariate correlation analyses between the BSIEB and the FFNI Exploitativeness subscale, were analyzed using Statistical Package for the Social Sciences (SPSS) Version 26.0. Inter-rater reliability (ICC) estimates for ratings of the BSIEB and their 95% confidence intervals were also calculated using SPSS 26.0 based on a mean-rating ($k = 3$), absolute-agreement, 2-way-mixed-effects model (Koo & Li, 2016). Confirmatory Factor Analyses (CFA) were conducted in R (R Core Team, 2021, “R version 4.1.1 (2021-08-10)”) using the lavaan package for R statistical software (Rosseel, 2012). Robust weighted least squares (WLSMV), designed for ordinal data (Flora & Curran, 2004), was used as the estimator; the correlated variables, both of an ordinal scale, utilize a polychoric correlation matrix. Robust weighted least squares estimation makes no distributional assumptions about the observed variables (Li, 2015). It adjusts the parameter estimates, standard errors, and fit indices for the categorical nature of the data (Finney & DiStefano, 2013). Model fit was assessed using goodness-of-fit statistics, including the chi-square (X^2) statistic. Chi-square non-significance suggests a good model fit. However, large sample sizes can inflate the chi-square statistic (e.g., Bentler & Bonett, 1980). Cheung and Rensvold (2002) found evidence to suggest that alternative fit indices are less sensitive to sample size. Thus, the current study also utilized the robust comparative fit index (CFI; Bentler, 1990), the Root Mean Square Error of Approximation (RMSEA; Steiger & Lind 1980), with 90 % confidence intervals, and the Standardized Root Mean Square Residual (SRMR; Joreskog & Sorbom, 1993). Good model fit is suggested by CFI values $\geq .95$, RMSEA values $\leq .06$, and SRMR values $\leq .08$ (Brown, 2015; Hu & Bentler, 1999).

If the model demonstrated an adequate fit, multigroup confirmatory factor analysis would be conducted to test whether the BSIEB measures the same construct in the same way across groups, in this case, across gender groups. Invariance testing is pivotal because operationalizing a psychological construct through a particular measurement model could measure something different across groups (Kline, 2011). Measurement invariance would be tested by fitting a series of nested multigroup CFA models, the successive model more stringent than the previous model. If the configural, metric, and scalar invariance models are supported, latent means can be compared (Steinmetz, Schmidt, Tina-Booh, & Schwartz, 2009). Any latent mean differences can be interpreted as differences resulting from different levels of the latent factor rather than from measurement non-invariance. If scalar invariance is supported, the multigroup model can be further constrained so that factor loadings, intercepts, and residual variance are fixed across groups (strict invariance). Strict invariance tests whether the residuals or errors are the same across groups. Strict invariance indicates that scale items measure the same latent construct across groups with the same degree of measurement error (Wu, Li, & Zumbo, 2007).

In testing model fit in multigroup confirmatory factor analysis, non-invariance is indicated if the chi-square difference between the two models is statistically significant. Alternative fit indices for measurement invariance include a change in CFI, RMSEA, and SRMR. Chen (2007) suggested the use of the following change criteria to support measurement invariance: a change criterion of $< -.005$ in CFI, a change criterion in RMSEA of $< .010$, and a change criterion in SRMR of $< .025$ (for metric invariance), or $< .005$ for scalar or residual invariance.

2.2 Results

2.2.1 Descriptive Statistics

Based on skewness and kurtosis, the distribution of scores on the BSIEB did not reflect any extreme deviations from normality as per guidelines provided by Curran, West, and Finch (1995) and Kline (2011). No extreme univariate or bivariate outliers were identified (Hair et al., 2010). Internal consistency reliability (Cronbach's α) for the BSIEB was .942, and the reliability coefficient for the FFNI was .894. The mean score on the BSIEB was 22.2 ($SD = 9$), and the mean score on the FFNI was 30.3 ($SD = 8.2$). The average inter-item correlation on the BSIEB (.618) was higher than typically recommended concerning the homogeneity of a scale (e.g., [.15, .50]; Clark & Watson (2019) note higher inter-item correlations (e.g., in the .40 to .50 range) are preferable with homogeneous scales. The BSIEB and FFNI were highly correlated ($r = .64$). The intraclass correlation coefficient (ICC) for independent ratings of BSIEB items reflected good interrater reliability, overall, ICC = 0.85 [95% CI (.58, .96)], with the 95% confidence interval ranging from moderate to excellent ICC (Koo & Li, 2016), indicating that raters had a high degree of agreement concerning exploitativeness item content.

2.2.2 Confirmatory Factor Analysis

The assumption of multivariate normality was not met (Mardia's [1970] normalized estimate of multivariate kurtosis yielded a z -statistic of 29.49, exceeding a normalized estimate cut-off of 5 recommended by Bentler [2005]). The Henze-Zirkler test of multivariate normality and Royston's multivariate normality test produced consistent results. However, WLSMV has produced minimal bias in estimating factor loadings and standard errors with moderately nonnormal data distributions (Li, 2015). As per power estimate guidelines for RMSEA provided by MacCallum, Browne, and Sugawara (1996), the power of rejecting the null hypothesis of close fit under conditions of the current sample size, df , and alpha level = .05, was between 95% and 98.5%. The chi-square statistic was 42.928 with a p -value of 0.168. The CFI value of .997, RMSEA value of .021 (90% CI: 0.000, 0.040), and SRMR value of 0.016 indicated a good fit. All factor loadings were significant ($ps < 0.001$), and standardized regression estimates ranged between .659 and .845 (see Table 1).

Table 1. Confirmatory Factor Analysis Standardized Factor Loadings and Estimates of Standard Errors

Item	Factor loading	S.E.
Lend money to me...	.788	.000
Join me in doing an illegal activity	.763	.058
Have sex/do something intimate with me...	.776	.058
Take something of value from workplace...	.772	.054
Break up with, or cheat on romantic partner	.812	.052
Steal or shoplift something for me	.845	.049
Give me merchandise from a store free of charge...	.844	.051
Give me money...I lied about why I needed it	.794	.048
Let me use or copy...school or work assignment	.659	.057
Let me use his/her credit or debit card...	.805	.054

Note. $N = 508$; All factor loadings were significant at $p < .001$. See the Appendix for complete items.

2.2.3 Measurement Invariance

A sequential multigroup confirmatory factor analysis model was estimated for gender. A meta-analytic study by Grijalva et al. (2015) reported a mean score difference effect size of $d = .29$ for gender, specifically on the NPI Exploitative/Entitlement subscale. This effect size yielded 93% power to detect significant effects in BSIEB scores for the current study (G*Power 3.1.9.7 for Windows 10, Faul et al., 2007). Configural invariance was supported because the model had adequate fit across both genders; the chi-square statistic was not significant ($X^2_{(70)} = 16.165$; $p = .296$). The CFI value of 0.998, RMSEA value of 0.018, and SRMR value of 0.022 suggested that the model fit well across gender subgroups. As seen in Table 2, full metric invariance was supported; the chi-square difference between the configural model and the metric invariance model was not significant ($\Delta X^2_{(9)} = 12.442$, $p = .19$). Next, full scalar invariance was supported as indicated by a non-significant chi-square

difference between the scalar and metric models ($\Delta X^2_{(9)} = 14.492, p = .11$). Additionally, the differences in CFI, RMSEA, and SRMR, as seen in Table 2, also supported scalar invariance (Chen, 2007). In testing for latent mean differences, the female group obtained marginally lower levels of exploitative behavior (21.1 ± 8.7) in comparison to the male group (22.7 ± 9.1), 95 % CI (3.28, -0.01), CR = 1.870, $p = .051$), with an effect size ($d = 0.18$) that meets Cohen's (1988) convention for a small effect. Given that the model supported scalar variance, strict invariance was tested. Strict invariance was supported by a non-significant chi-square difference between the scalar and strict models ($\Delta X^2_{(10)} = 16.683, p = .08$). Additionally, the differences in CFI, RMSEA, and SRMR, as seen in Table 2, also supported strict invariance (Chen, 2007).

Table 2. Multigroup Confirmatory Factor Analyses Testing for Gender Invariance of the BSIEB

Variable	X^2	df	$\Delta \chi^2$	Δ df	p	Δ CFI	Δ RMSEA	Δ SRMR
Gender								
Configural	16.165	70						
Metric	43.327	79	12.442	9	0.19	.004	.011	.014
Scalar	49.453	88	14.492	9	0.11	.001	.002	.002
Strict	63.475	98	16.683	10	0.08	.002	.002	.007

Note. X^2 = chi-square test of model fit; df = degrees of freedom for chi-square test of model fit; ΔX^2 = change in chi-square from comparison model (Metric compared with Configural; Scalar compared with Metric); Δ df = differences in degrees of freedom between the compared models; Δ CFI = change in CFI (comparative fit index) from comparison model (Metric compared with Configural; Scalar compared with Metric; Strict compared with Scalar); Δ RMSEA = change in RMSEA (root mean square error of approximation) from comparison model (Metric compared with Configural; Scalar compared with Metric; Strict compared with Scalar); Δ SRMR = change in SRMR (standardized root mean square residual) from comparison model (Metric compared with Configural; Scalar compared with Metric; Strict compared with Scalar).

2.3 Discussion

The Brief Survey of Interpersonal Exploitative Behavior (BSIEB) demonstrated excellent internal consistency reliability, and a high level of homogeneity, which would be consistent with the conceptualization of interpersonal exploitative behavior as a narrow bandwidth construct rather than a broad measure of a personality trait. However, the high level of internal consistency suggests possible redundant information. The solid convergent validity of the BSIEB with the Exploitativeness scale of the Five-Factor Narcissism Inventory provides initial support for the BSIEB as capturing features of interpersonal exploitativeness. Nevertheless, further studies that include other variables will be needed to support convergent validity (see Study 2).

Confirmatory factor analysis of the BSIEB based upon a hypothesized one-factor measurement model suggested a good fit. Moreover, measurement invariance across gender subgroups demonstrated that respondents across groups attributed the same meaning to the latent construct. Overall, females obtained lower scores than males, consistent with previous research demonstrating that males obtained higher scores on composite measures of narcissism (e.g., Foster, Campbell, & Twenge, 2003) and specifically on the entitlement/exploitativeness subscale of the NPI (Grijalva et al., 2015). However, the effect size is considered small. Due to sample size restrictions, invariance across other demographic variables could not be conducted.

The BSIEB might examine whether a higher risk of antisocial behavior is associated with more dominant pressure on others to yield to one's desires. However, the BSIEB does not capture an ecological perspective or specific social-environmental contexts, such as social status and power, so that, for example, items do not reference a supervisor exploiting a subordinate for sex or other inappropriate or unlawful use. Only some people in the general population have an opportunity to engage in such behavior; therefore, items of this kind were not included.

2.4 Limitations

The referent period to recall how often participants engaged in each behavior since age 18 may pose difficulties. A person of age 50 would have a period of 30 years longer than a person of age 20 in which the behaviors surveyed by the BSIEB might have been displayed. Other inventories and scales, such as various risk assessment measures, conflict or abuse measures, and parental care measures, utilize historical referent periods or include an

option to select a period beyond the past year. Nevertheless, even a one-year referent period could be difficult for respondents to recall their behavior accurately. Additionally, a person's interpretation of whether s/he "pressured" or "persuaded" another person to engage in the specific behaviors identified in this scale is highly subjective or "open for interpretation." Further study of the BSIEB might determine whether differences in referent periods are associated with different statistical results.

3. Study 2

3.1 Purpose of Study 2

Study 1 suggested that two issues primarily needed to be addressed in a follow-up, the first concerning the measure. The referent period in responding to items was modified to instruct participants to respond to items from the past year. The Revised Conflict Tactics Scale (CTS2; Straus, Hamby, & Warren, 2003), which surveys domestic and intimate partner violence, supports using a one-year referent period. Straus, Hamby, and Warren (2003) suggest the one-year referent period balances the potential problems of recall over a long period and the potential for a highly skewed distribution, given that violence in the family and other intimate relationships is relatively rare. Considering exploitative behaviors, as surveyed in the BSIEB, are likely rare in the general population, the one-year referent period seemed appropriate. An additional response option was included in Study 2 to explore the BSIEB further. However, this response option (i.e., "not in the past year, but I did so before") was not scored, given that it would not be clear how to quantify this option and also because it would, in effect, reference varying periods across persons.

It also was noted earlier that convergence of the BSIEB with other measures of exploitativeness would support its validity. Beyond this, the BSIEB should significantly predict relevant outcome variables associated with interpersonal exploitativeness. Further, incremental validity of the BSIEB in accounting for explained variance of relevant outcome measures above and beyond the variance accounted for by other measures of exploitativeness would provide substantial support for this measure. Study 2 examined the BSIEB with other measures of exploitativeness and two criterion variables, i.e., social aggression and alcohol and substance use. Social aggression is common in both NPD and ASPD. Galen and Underwood (1997) defined social aggression as "actions directed toward damaging others' friendships, self-esteem, or social status." Social aggression and relational aggression are terms that often describe the same behaviors. Relational aggression is developmentally most common in children and adolescents (Brandes, Reardon, Shields, & Tackett, 2021). As such, this population has been the primary focus of the study of relationships between narcissism and social or relational aggression. Of the few studies that examined the associations between exploitativeness and relational aggression, findings of a positive relationship emerged (e.g., Ang, Ong, Lim, & Eulindra, 2009; Onishi, Kawabata, & Kurokawa, 2011). Those studies focused on the child and adolescent population. However, social and relational aggression occurs also during adulthood (Archer & Coyne, 2005) in groups, workplaces, and dyadic relationships. Reidy et al. (2008) found that entitlement and exploitativeness, as assessed with the NPI, best predicted multiple types of aggression. Victims of relational aggression may experience significant psychologically harmful effects (Archer & Coyne, 2005; Reardon et al., 2021). Thus, there is a need for further study of the associations between exploitativeness and social aggression in adult samples. Associations between narcissism and retaliatory aggression, especially in response to ego provocation (Chester & DeWall, 2016; Jones & Paulhus, 2010), also points to the possible role of exploitativeness.

The scientific literature has reported relationships between narcissism and alcohol and substance use (e.g., Daddis & Brunell, 2015; Kealy et al., 2017; Luhtanen & Crocker, 2005), as well as significant comorbidity between alcohol and substance use with ASPD and adult antisocial behavior (Compton, Conway, Stinson, Colliver, & Grant, 2005). A national epidemiologic survey in the U.S. on the comorbidity of DSM-IV NPD and alcohol and related conditions (Stinson et al., 2008) found that the prevalence of NPD among respondents within the broad category of substance use disorders was 11.8%. The co-occurrence of lifetime NPD among respondents with 12-month drug dependence was 34.9%. The 12-month substance use disorder rate among respondents with lifetime NPD was 40.6%. Rates of alcohol abuse, dependence, and drug use disorder were higher among men with NPD than women with NPD. In a national epidemiologic survey in the U.S., Compton, Conway, Stinson, Colliver, and Grant (2005) found the odds ratios (ORs) of having ASPD among respondents with any alcohol use disorder and with any substance use disorder were 8.0, and 11.3, respectively. Messina, Wish, and Nemes (1999) reported that approximately 90 % of individuals diagnosed with ASPD also have a co-occurring substance use disorder.

Few studies have examined associations between alcohol and substance use with facets of narcissism. Naidu et al. (2019) found that higher levels of narcissistic devaluing (as measured with the PNI) were indirectly related to

more alcohol-related problems through impaired control over drinking and heavy episodic drinking. They also found that higher levels of exploitativeness were directly related to more heavy-episodic drinking. In a large sample study of college students in 38 sites internationally, Hines & Straus (2007) found that an antisocial traits and behaviors variable fully mediated the association between binge drinking and partner violence. In a study of a nationally representative sample of Canadian men, Kealy et al. (2008) found that pathological narcissism was significantly related to both alcohol overuse and aggressive behavior.

Based on the foregoing, studies are beginning to establish that particular facets of narcissism, such as exploitativeness, may be involved in both social and physical aggression and episodic heavy or binge alcohol use. However, there is a need for further study of specific facets of narcissism, particularly exploitativeness and associated behaviors such as social aggression and alcohol and substance use. In Study 2, social aggression and alcohol and substance use will be examined as dependent variables to be predicted by the exploitativeness measures.

3.2 Method

3.2.1 Study Participants and Procedure

Participants recruited from MTurk included 204 persons (57.8 % male) with a mean age of 36.5 ($SD = 11.2$). Participants were directed to a link at SurveyMonkey. The introduction to the survey provided a brief description and elements contained in the framework for informed consent. All participants received the same order of items. The missing item data across cases for all the study variables ranged between 0 and 3.4%. The Expectation-Maximization (EM) method was used for imputation of missing values using SPSS.

3.2.2 Exploitativeness Measures

(1) Five-Factor Narcissism Inventory

See Study 1 (FFNI; Glover et al., 2012).

(2) Narcissistic Personality Inventory-13

NPI-13 (NPI-13; Gentile et al., 2013) is a shortened, 13-item measure of the NPI, including the three subscales as in the 40-item NPI. Support for the convergent and discriminant validity of the shortened measure has been demonstrated (see Gentile et al., 2013). The NPI-13 was administered in this study in a 5-point Likert-type format (strongly disagree to strongly agree) rather than a forced-choice format. Miller et al. (2018) demonstrated that the Likert format manifested very similar validity to the original forced-choice format.

(3) Interpersonal Exploitativeness Scale

The IES (IES; Brunell et al., 2013) is a 6-item homogeneous scale that measures one's propensity to take advantage of others. Exploratory and Confirmatory Factor Analysis supported a unidimensional model, and the IES has demonstrated convergent and discriminant validity. The IES uses a 7-point Likert-type format with responses ranging from "strongly disagree" to "strongly agree."

Brief Survey of Interpersonal Exploitative Behavior - See Study 1. The referent period in the directions of the BSIEB was changed to "in the past year." An additional response choice was included, i.e., "not in the past year, but I did so before." This item was not assigned a score but was included for purposes of further study. This study included four "foil" items in the BSIEB to ameliorate acquiescent response bias. However, these items were not included in the BSIEB score. The foil items can be construed as items inconsistent with exploitativeness, e.g., "Compromise with, or work out a problem with someone"; "Forgive or forget, or try to move on from their angry feelings toward someone."

3.2.3 Criterion Measures

(1) Subtypes of Antisocial Behavior Questionnaire

The STAB (STAB; Burt & Donnellan, 2009) is a 32-item scale that measures physical aggression, rule-breaking, and social aggression as distinct but somewhat overlapping components of the construct of antisocial behavior. Across five studies, Burt and Donnellan (2009) found that the STAB demonstrated support for factorial validity in samples of college students, community adults, and adjudicated adults. Internal consistency reliabilities for the social aggression scale across five samples ranged from .83 to .90. The STAB demonstrated criterion validity through its associations with measures of externalizing behavior and personality traits. The present study included the 11-item social aggression subscale, which Burt and Donnellan found to be highly correlated with a measure of relational aggression. Items on the STAB include "intentionally damaged someone's reputation";

“tried to hurt someone’s feelings”; “tried to turn others against someone when angry with him/her .” The STAB utilizes a 5-point, Likert-type response format ranging from “never” to “nearly all the time.”

(2) Tobacco, Alcohol, Prescription Medication, and other Substance Use Tool

The TAPS (TAPS; McNeely et al., 2016) provides a brief screening and assessment of commonly used substances. In a study that included a diverse population of 2000 adult patients at five primary care sites (Gryczynski et al., 2017), the TAPS-1 screening component demonstrated good sensitivity and specificity for identifying problem use of tobacco, alcohol, and illicit drugs at different levels of severity; AUCs ranged between acceptable and excellent. Nine items were included in the present study (tobacco-related items were excluded), and the analyses were based on the total score. An example of an item included in the screening is “In the PAST 12 MONTHS, how often have you had five or more drinks containing alcohol in one day (four or more drinks in one day for females)?”. Response choices ranged from “never” to “daily or almost daily.”

3.2.4 Data Analyses

SPSS was used to impute missing values. All other analyses were conducted in R (R Core Team, 2021, “R version 4.1.1 (2021-08-10)” (Rosseel, 2012). Descriptive statistics were examined for all study variables (see Table 3). The convergent validity of the BSIEB was examined through bivariate correlations with the three independent variables that represent validated measures of exploitativeness (the NPI is not per se a measure of exploitativeness but includes the Entitlement/Exploitation subscale). Additionally, hierarchical multiple regression analyses were performed to evaluate the unique contribution of the BSIEB to the prediction of outcome variables after controlling for the other independent variables.

Table 3. Descriptive Statistics and Reliability Coefficients for Study 2 Variables (N = 204)

Scale	Mean	SD	Skew	Kurtosis	Alpha	MIIC
BSIEB	24.41	11.11	.20	-1.16	.94	.62
FFNI	32.79	6.84	-1.10	1.25	.83	.32
NPI	46.49	8.66	-.45	0.03	.88	.37
NPI_LA	14.59	2.85	-.51	0.50	.75	.43
NPI_GE	17.91	3.75	-.53	0.26	.76	.39
NPI-EE	14.0	3.11	-.63	0.35	.63	.30
IES	25.81	8.79	-.51	-0.48	.91	.63
STAB	29.12	8.98	-.24	-1.00	.92	.51
SUB	12.64	6.83	-.38	-0.91	.83	.35

Note. BSIEB = Brief Survey of Interpersonal Exploitative Behavior; FFNI = Five-Factor Narcissism Inventory, Exploitativeness subscale; NPI = Narcissistic Personality Inventory; NPI-LA = Narcissistic Personality Inventory, Leadership/Authority subscale; NPI-GE = Narcissistic Personality Inventory, Grandiose Exhibitionism subscale; NPI-EE = Narcissistic Personality Inventory, Entitlement/Exploitativeness subscale; IES = Interpersonal Exploitativeness Scale; STAB = Subtypes of Antisocial Behavior, Social Aggression subscale; SUB = Tobacco, Alcohol, Prescription medication, and other Substance Use Tool (TAPS).

3.3 Results

3.3.1 Descriptive Statistics

Descriptive statistics are presented in Table 3. No outliers were detected with z scores greater than 3.3 (Tabachnik & Fidell, 2012). Skewness and kurtosis for all variables were below the absolute value of 2, suggesting the absence of extreme deviations from normality as per guidelines provided by Curran, West, and Finch (1995) and Kline (2011) and in consideration of sample size (Field, 2015; Hair et al., 2010). Age had trivial relationships with all variables except the NPI, with which a small correlation ($r = .14$) was found. Gender had small relationships with the other variables, ranging from .15 to .24, with an average correlation of .21. Independent-samples t-tests were conducted to compare IVs and DVs for males and females. Scores for males were significantly greater than for females for all variables, with small to medium effect sizes (Cohen’s d) ranging between .43 and .48. The data were also examined regarding response options selected on the BSIEB.

The response option, "Not in the past year, but I did so before," was selected with a frequency of 2.3%. For all the 10 scored items on the BSIEB, the response option "Never" was selected with the highest frequency, and the response option "More than ten times" was selected with the lowest frequency. For approximately half of the items, there were response choice selections of categories that were not in descending order of response frequencies, e.g., "three to five times" chosen more frequently than "once or twice."

3.3.2 Bivariate Associations

Bivariate correlations for independent and dependent variables are displayed in Table 4. Several independent variables had high intercorrelations, which might suggest concerns about multicollinearity. Collinearity statistics were examined in the hierarchical regression analyses. The BSIEB had an average correlation of .48 with the other IVs, the highest with the IES ($r = .61$). The BSIEB had correlation coefficients greater than .70 with each of the DVs. The NPI subscales did not have notably differential relationships with the DVs and were not used in further analyses.

Table 4. Inter-Correlations (Pearson) Among Study 2 Independent and Dependent Variables

Scale	BSIEB	FFNI	IES	NPI	NPI_LA	NPI_GE	NPI_EE	STAB	SUB
BSIEB									
FFNI	.52	1							
IES	.61	.72	1						
NPI	.48	.68	.71	1					
NPI_LA	.38	.56	.56	.85	1				
NPI_GE	.45	.64	.69	.93	.68	1			
NPI_EE	.44	.61	.65	.89	.62	.75	1		
STAB	.74	.42	.61	.43	.34	.40	.40	1	
SUB	.72	.49	.57	.50	.43	.47	.44	.69	1

Note. BSIEB = Brief Survey of Interpersonal Exploitative Behavior; FFNI = Five-Factor Narcissism Inventory, Exploitativeness subscale; NPI = Narcissistic Personality Inventory; NPI-LA = Narcissistic Personality Inventory, Leadership/Authority subscale; NPI-GE = Narcissistic Personality Inventory, Grandiose Exhibitionism subscale; NPI-EE = Narcissistic Personality Inventory, Entitlement/Exploitativeness subscale; IES = Interpersonal Exploitativeness Scale; STAB = Subtypes of Antisocial Behavior, Social Aggression subscale; SUB = Tobacco, Alcohol, Prescription medication, and other Substance Use Tool (TAPS).

3.3.3 Hierarchical Regression

Hierarchical multiple regression was employed to assess the ability of the BSIEB to predict social aggression (STAB questionnaire) after controlling for the influence of age, gender, the NPI, FFNI, and IES measures (see Table 5). Checks for violations of the assumptions of multiple regression (i.e., linearity, normal distribution of residuals, and homoscedasticity) were conducted on the final model. No significant violations of the assumptions were indicated. Age and gender were entered in Step 1, explaining 4% of the variance in social aggression. Only gender was a significant predictor, and age, with a standardized coefficient of -0.01 , was omitted from additional models. After the entry of the NPI, FFNI, and IES in Step 2, the total variance explained by the model as a whole was 38.3%, $F(4, 199) = 30.82$, $p < .001$. The three measures entered in Step 2 explained an additional 34% of the variance in social aggression after controlling for gender; R squared change = .34, F change (2, 199) = 55.38, $p < .001$. Only IES was a significant predictor. After the BSIEB was entered in Step 3, the total variance explained by the model as a whole was 60.2%, $F(5, 198) = 59.88$, $p < .001$. The BSIEB explained an additional 22% of the variance in social aggression after controlling for gender, FFNI, NPI, and IES; R squared change = .22, F change (1, 198) = 109.15, $p < .001$. In the final model, only the IES and BSIEB were statistically significant, with the BSIEB registering a higher beta value (beta = .60, $p < .001$), than the IES scale (beta = .37, $p < .001$). The FFNI scale was significant as a negative predictor of social aggression ($p = .04$). An inspection of the collinearity statistics in the final model found VIF (Variance Inflation Factor) for gender was 1.1, VIF for the FFNI was 2.4, VIF for the NPI was 2.3, VIF for the IES was 2.9, and VIF for the BSIEB was 1.6. These VIF scores do not typically indicate multicollinearity and would not suggest corrective measures are needed. A rule

of thumb for problems with Tolerance and VIF are $< .10$ and > 10 , respectively (e.g., Hair et al., 2010; James, Witten, Hastie, & Tibshirani, 2013). However, as noted by many authors (e.g., Hair et al., 2010, James, Witten, Hastie, and Tibshirani, 2013, Johnston, Jones, and Manley, 2017), even VIF values ranging between 2.5 and 5 can suggest moderate multicollinearity resulting in a reduced estimation of the effects of individual IVs and an increase in standard errors. Also, a tolerance statistic below .50 for a variable indicates that the other variables in the equation account for more than one-half of the variance in that variable. In this case, the high bivariate correlations and the tolerance statistic below .50 for each variable, except for the BSIEB, suggest a reduced estimation of the effects of individual IVs. The reversal of signs for the estimated regression coefficients for the FFNI and the NPI suggests that the high (zero-order) correlations caused the regression coefficients for these two variables to change from positive in the bivariate correlations to negative signs in the regression analysis.

Table 5. Hierarchical Regression Analysis Predicting Social Aggression

Variable	B	S.E. B	β	t
Step 1				
Gender	3.55	1.25	.20	2.85**
Age	-.09	.06	-.01	-.13
Step 2				
Gender	1.11	1.04	.06	-1.95
FFNI	-.07	.11	-.06	-.66
NPI	-.010	.091	-.01	-.09
IES	.661	.092	.65	7.22***
Step 3				
Gender	.33	.84	.02	.41
FFNI	-.18	.09	-.15	-2.11*
NPI	-.02	.07	-.02	-.35
IES	.374	.08	.37	4.8***
BSIEB	.47	.05	.60	10.45***

Note. $R^2 = .04$ at Step 1, $p < .05$; $R^2 = .38$ at Step 2, $p < .001$; $R^2 \Delta = .34$, $p < .001$; $R^2 = .60$ at Step 3, $p < .001$; $R^2 \Delta = .22$, $p < .001$.

* $p < .05$, ** $p < .01$, *** $p < .001$.

A second hierarchical multiple regression was employed to assess the ability of the BSIEB to predict alcohol and substance use (TAP scale) after controlling for the influence of age, gender, the NPI, FFNI, and IES measures. Checks for violations of the assumptions of multiple regression (i.e., linearity, normal distribution of residuals, and homoscedasticity) were conducted on the final model. No significant violations of the assumptions were indicated. Age and gender were entered in Step 1, explaining 5% of the variance in substance use. Only gender was a significant predictor, and age, with a standardized coefficient of -0.01, was omitted from additional models. After the entry of the NPI, FFNI, and IES in Step 2, the total variance explained by the model as a whole was 35.8%, $F(4, 199) = 27.71$, $p < .001$. The three measures entered in Step 2 explained an additional 31% of the variance in alcohol and substance use after controlling for age and gender; R squared change = .31, F change (2, 199) = 47.85, $p < .001$. After the BSIEB was entered in Step 3, the total variance explained by the model as a whole was 56.3%, $F(5, 198) = 51.03$, $p < .001$. The BSIEB explained an additional 20% of the variance in substance use, after controlling for age, gender, FFNI, NPI, and IES; R squared change = .20, F change (1, 198) = 93.04, $p < .001$. In the final model, only the BSIEB was statistically significant (beta = .58, $p < .001$). Collinearity statistics were substantially below the suggested cut-off (all VIF scores were below 3). Nevertheless, the high bivariate correlations among the independent variables and the tolerance statistic for the IVs below .50, except for the BSIEB, suggest the probability of reduced estimation of the effects of individual IVs due to multicollinearity.

Table 6. Hierarchical Regression Analysis Predicting Substance Use

Variable	B	S.E. B	β	t
Step 1				
Gender	0.44	.14	-.22	3.21*
Age	-0.01	.05	-.01	-0.16
Step 2				
Gender	-0.16	.12	-.08	-1.4
FFNI	.11	.09	.11	1.29
NPI	.14	.09	.14	1.63
IES	.37	.09	.37	4.10**
Step 3				
Gender	-0.08	0.10	-0.04	-0.80
FFNI	.03	0.07	0.03	0.34
NPI	0.13	0.07	0.13	1.74
IES	0.10	0.08	0.10	1.28
BSIEB	0.58	0.06	.58	9.65**

Note. $R^2 = .05$ at Step 1, $p < .01$; $R^2 = .36$ at Step 2, $p < .001$; $R^2 \Delta = .31$, $p < .001$; $R^2 = .56$ at Step 3, $p < .001$; $R^2 \Delta = .20$, $p < .001$.

* $p < .01$, ** $p < .001$.

In addition to the potential effects of multicollinearity resulting in increases in standard errors and regression coefficients being incorrectly estimated, a potential problem in this study might be due to common method variance (CMV, also referred to as common method bias, CMB). CMV may occur when a single method, e.g., self-report measures, is used for all data collection. CMV can result in a portion of the variance in the outcome variable of interest resulting from the method used. Relationships among the study variables become artificially inflated. A post hoc statistical technique, i.e., Harman's single-factor test (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003), was employed to estimate the degree to which a single factor accounted for the majority of the covariance among the study measures. Thirty-five percent of the variance in this factor was accounted for by one factor, below the customary heuristic of 50% or greater of the variance that would suggest CMV. Still, there are several limitations to Harman's single-factor test, including that it does not provide a remedy for method effects (Podsakoff et al., 2003).

3.4 Discussion

The aims of study 2 included improvement of the BSIEB, particularly concerning the referent period for responding to scale items. The second aim was to test the convergent validity of the BSIEB with several other measures of exploitativeness. The third aim was to test for significant correlations between the BSIEB and two outcome or dependent variable measures demonstrated in the scientific literature to be associated with narcissism and interpersonal exploitativeness. The fourth aim was to test if the BSIEB would account for significant additional variance in the DVs above and beyond the variance accounted for by the other IVs.

Two novel findings emerged concerning the modification in the referent time period. One is that the mean score on the BSIEB in study 2 was significantly greater than the mean score in Study 1, albeit the effect size using Cohen's d was small, and two different samples were compared. This result appears counter-intuitive in that the BSIEB in study 1 used a lifetime referent period, suggesting an outcome of higher scores. Possible explanations include that the lifetime and the 1-year referent periods remain challenging to recall. Also, how persons interpret their use of pressure will vary among individuals, thus, having an unknown effect on their responses. Considering further decrease of the referent time would need to balance the potential for improved recall with the potential for a short period to "capture" occasions in which a person has engaged in the BSIEB behaviors. Also, Study 2 included four foil items inconsistent with exploitativeness to diminish an acquiescent response set bias. Exclusion of such items in further study of the BSIEB appears a sensible choice unless it should be

demonstrated that the inclusion of these items serves any benefit and since these items were not included in Study 1.

The BSIEB demonstrated robust associations with other measures of exploitativeness, supporting the convergent validity of the BSIEB. Although the NPI total score is not a measure of exploitativeness, there was no significant difference in the correlation between the NPI total score and the NPI Entitlement/Exploitativeness subscale score with the BSIEB. Additionally, the BSIEB was strongly related to two variables expected to be associated with exploitativeness, demonstrating criterion validity. Further studies might address the role of mediating variables associated with exploitativeness and social aggression, such as low empathy. It also is conjectured that people who exhibit high levels of exploitativeness and whose efforts to pressure someone are unsuccessful might be inclined to engage in efforts to retaliate and harm someone, as described by items on the STAB. Retaliation would be consistent with research finding associations between narcissism and retaliatory aggression. Associations between exploitativeness and alcohol and substance use demonstrated in this study are consistent with the limited extant literature. Further studies should be conducted to understand these associations better. Even with solid support for the convergent validity of the BSIEB, discriminant validity needs to be demonstrated in further studies of the BSIEB.

3.5 General Discussion

The present study represents the first reported development of a self-report behavioral survey of interpersonal exploitativeness. Current measures of exploitativeness share similar item content, which references attitudes or inclinations toward using, taking advantage of others, benefitting or profiting at the expense of others, and without concern for the fairness of such behavior. When a new measurement tool is introduced in contexts where other measures of the same construct exist, it begs the question of the need for an additional measurement instrument. The two preliminary studies reported here addressed this question.

The BSIEB differs from other measures of exploitation by focusing on specific interpersonal exploitative behaviors, albeit from a historical perspective of the past year as a time referent (Study 2). Rather than being conceived as a narrow-bandwidth feature of narcissism, the BSIEB is conceptualized as a narrow-trait measure subsumed within the broad personality domain of FFM Antagonism. This is conceptually similar to the FFNI, which assesses NPD traits from the perspective of the FFM. Antagonism, from the FFM frame of reference, is essential to both Grandiose and Vulnerable narcissism (Miller et al., 2016) and is a core component also of psychopathy (e.g., Lynam et al., 2011; Miller & Lynam, 2015; O'Boyle, Forsyth, Banks, Story & White, 2015). The convergent associations of the BSIEB with the NPI, FFNI, and IEP are noteworthy, given that the latter measures utilize Likert-type response scales of agreement/disagreement. In contrast, the BSIEB response scale utilizes a frequency count of discrete behavior. These associations and the robust relationship of the BSIEB with a measure of social aggression suggest that the BSIEB taps into interpersonally harmful behavior. This finding may be consistent with the viewpoint of researchers who opine that entitlement/exploitativeness, as assessed particularly with the NPI, is the most maladaptive feature of narcissism.

Given that exploitativeness is a transdiagnostic characteristic, the BSIEB might be utilized in studying a range of narcissistic and antisocial traits such as antisocial behavior, hostility, aggression, fraud/cheating, low empathy, entitlement, risk-taking, and addictive behaviors. As such, the BSIEB might contribute to a further understanding of the nomological network of exploitativeness. As a behaviorally-focused measure, the BSIEB also might help craft therapeutic interventions. For example, using a cognitive-behavioral approach, interventions might focus on identifying accompanying maladaptive thoughts before, during, and after exploitative behaviors and any emotions associated with behaviors exhibited and address the development of empathy for others.

The strong associations between the BSIEB measure of interpersonal exploitativeness and the measures of social aggression and alcohol and substance use add to the existing, albeit very limited, literature concerning these associations. Relational aggression has been studied primarily in children and youth. The current study supports the association between exploitativeness and social aggression in adults. Social aggression may be based on a highly maladaptive, entitled, exploitative motivational system expressed as proactive or reactive aggression. The current study (see Study 2) found robust relationships between all the measures of exploitativeness with the TAPS as a measure of alcohol and substance use. This finding is consistent with the few studies examining associations between exploitativeness and alcohol and substance use. As noted earlier, Naidu et al. (2019) found that higher levels of exploitativeness were directly related to more heavy-episodic drinking. In the current study (Study 2), interpersonal exploitativeness, social aggression, and alcohol and substance use were highly correlated. A future study might further parse whether exploitativeness has a unique role concerning alcohol/substance use and partner or intimate partner violence and aggression.

Most of the items on the BSIEB reflect observable behavior, at least from the perspective of subjects or "victims" of exploitation which would be able to describe such behavior. Additionally, such behaviors might be familiar to and thus reportable by persons (collaterals/informants) familiar with the person being assessed, whether in research or clinical contexts. Interestingly, an informant version of the FFNI (Oltmanns, Crego, & Widiger, 2018) was used to test whether informant reports might be helpful to supplement or complement the self-report measure of narcissism. Results suggested robust self-informant agreement for grandiose narcissism but not for vulnerable narcissism. Expanded use of the BSIEB with informant reports could be a fruitful area for future study.

All of the study variables in Study 2 evidenced mean scores that were significantly greater in males than females, which is consistent with the existing literature concerning measures of dark traits. Additionally, rates of alcohol abuse, dependence, and drug use disorder were higher among men with NPD than among women with NPD (Stinson et al., 2008). Further study of the BSIEB might examine whether the nomological network of this measure might differ based on other demographic variables.

From a practical consideration, the BSIEB is operationalized as a brief, free-standing measure of exploitativeness, similar to the IES. In this connection, the BSIEB, like the IES, offers the advantage of being a timesaving method of studying exploitativeness. Multidimensional measures of narcissism require the completion of the full measure to assess exploitativeness.

3.6 Limitations

While the strengths of the BSIEB have been discussed, there are also several limitations. One is that except for the FFNI, which includes two reverse-scored items, the measurement scales employed in this study consisted of items that are one-directional in polarity, and many conveyed negative social attitudes or problematic behaviors. As a result, the potential for an acquiescent or non-acquiescent response bias may have increased. Response bias can result in skewed data that affect the reliability and validity of the study findings. However, all response options were utilized for each of the 10 scored BSIEB items. Most responses were within the middle categories, which would be expected in a general or community sample.

As noted earlier, common method variance may have resulted in artificial inflation in the relationships among study variables. This accounted for the high correlation coefficients among the study variables to some extent. Although Harman's single-factor test, a post hoc statistical technique, did not suggest that a general factor accounted for most of the covariance among study measures, this technique has several limitations. Future studies of the BSIEB as a measure of exploitativeness might benefit from using additional study methods such as resource dilemma and commons dilemma methods used by Brunell et al. (2013) and Campbell, Bush, Brunell, and Shelton (2005), among others.

When planning the design of a new measurement instrument intended as a homogeneous scale and with interest in parsimony (which might be beneficial for researchers to utilize when time considerations are of the essence), it is essential to balance the parsimony of the measure with the intended breadth of coverage of the construct under study. It remains to be determined whether the BSIEB provides sufficient coverage of the exploitativeness construct, albeit the findings thus far of structural, convergent, and criterion validity support reliable and meaningful coverage. Discriminant validity needs to be demonstrated. Additional iterations of this measure might result in improvements. An expanded survey may be effectuated for fuller construct coverage. The BSIEB items are predicated on the framework of using pressure or persuasion to obtain desired goals from another person. The methods or tactics one may use to apply pressure will be varied and not tapped into by the BSIEB. Another behaviorally oriented approach to measuring exploitativeness could focus on tactics utilized, e.g., "I try to make them feel guilty,"; "I accuse them of not caring about me,"; "I put them down,"; "I try to intimidate them." Also, there are ways to exploit another person without explicit pressure or persuasion, e.g., lying, deceit, and more subtle persuasion.

Although there is support for utilizing laypersons to generate items and rate the degree to which items represent prototypical constructs, including narcissism and psychopathy, in this case, expert raters were not utilized for item ratings, which is a limitation. The utilization of expert raters should be considered in further iterations of the BSIEB.

The current study samples were composed of participants recruited from MTurk, which limits generalizability to other populations. Future studies of the BSIEB should include different populations in different settings, such as the general community, undergraduates, clinical, and forensic populations.

The BSIEB shares disadvantages with other self-reports, e.g., susceptibility to content-based and non-content-based response bias. As noted earlier (see Study 1), a person's interpretation of whether they "pressured" or "persuaded" another person to engage in the specific behaviors identified in this scale is highly subjective or "open for interpretation." People with higher levels of exploitativeness might knowingly or unknowingly deny their use of pressure in their interpersonal behavior, even while possibly acknowledging the behavior described in an item. On the other hand, they might flaunt and justify their behavior.

4. Conclusion

The two studies provide preliminary support for using the BSIEB as a reliable and valid research measure of interpersonal exploitativeness in investigating this particular feature of narcissism, antisocial behavior, and other "dark" personality traits. The BSIEB aligns well with the existing theoretical and empirically supported conceptualization of interpersonal exploitativeness as a lower-order trait within the broad personality dimension of Antagonism. Although studied here in the context of narcissism primarily, the BSIEB might be included in study designs of other dark personality traits. The BSIEB, which focuses on the behavioral expression of exploitativeness, supplements and may provide more expansive coverage of interpersonal exploitativeness than is currently available through other measures. Replication of findings and testing across different populations in different settings will be needed.

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Notes

The study survey is relatively brief; therefore, participants' data were excluded from analyses if one attention check was incorrect. The investigator included two attention check items due to interest in studying the usefulness of attention checks in short and long surveys.

Appendix

Brief Survey of Interpersonal Exploitative Behavior Items and Directions

The following ten (10) statements describe a number of different behaviors. Please read each one and indicate how often you have done each behavior during the PAST YEAR. If you have done one of the behaviors before, as an adult, but not including the past year, you can choose that option. Choose only one response.

Each of the sentences below begins with the phrase, "During the past year, I have tried to persuade or pressure someone to...".

Never (0) times

Once or twice (1-2) times

Three to five (3-5) times

Six to ten (6-10) times

More than ten times (10 + times)

Not in the past year, but I did so before

- 1) Lend money to me that I knew I would not repay any time soon, if ever.
- 2) Join me in doing an illegal activity.
- 3) Have sex/do something intimate with me even after the other person said s/he is not comfortable or did not want to.
- 4) Take something of value from his/her workplace and give it to me.
- 5) Break up with, or cheat on a romantic partner and go out with me.
- 6) Steal or shoplift something for me.
- 7) Give me merchandise from a store free of charge.
- 8) Give me money, although I lied about why I needed it.
- 9) Let me use or copy his/her school or work assignment as if it was my own, or do my work or school assignment for me.
- 10) Let me use his/her credit or debit card to purchase something which I knew I would not repay.

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