THE RELATIONSHIP BETWEEN STATUS-BASED REJECTION SENSITIVITY AND THE PSYCHOLOGICAL FUNCTIONING OF GAY MEN

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TABLE OF CONTENTS

ABSTRACT iii

ACKNOWELGEMENTS iv

LIST OF TABLES v

INTRODUCTION 1

Rejection Sensitivity Construct and Etiology 2

Applications of Rejection Sensitivity 7

Sexuality Development 17

Implications of Minority Status for Sexual Minorities 20

Present Study 24

Hypotheses 25

METHODS 26

Participants 26

Measures 27

Procedure 29

RESULTS 30

DISCUSSION 35

REFERENCES 43

APPENDIX 60

ABSTRACT

Rejection sensitivity is a construct that represents an individual's tendency to anxiously expect, as well as, readily receive interpersonal rejection within the context of ambiguous social cues and scenarios. Previous research has evaluated the impact of the construct o within the context of interpersonal romantic relationships as well as minority ethnic populations. Recent research by Pachankis, Goldfriend, and Ramrattan (2008) led to the development of a measure to specifically measure rejection sensitivity as it pertains to the concerns of gay men as a minority population. The present study utilizes this newly created measure to examine the relationship between rejection sensitivity and personality, psychopathology, coping, and substance use. Results indicated weak correlations between rejection sensitivity scores, neuroticism domain scores t-scores (specifically along the self-consciousness and anxiety facets), adaptive coping t-scores (friendships), internalizing disorder t-scores, and denial coping subscales. Despite the limited results, this study adds to an overall understanding of the measurement issues of this construct within this population as well a better understanding of the impact of this construct on the aforementioned areas of psychological functioning.

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LIST OF TABLES

Table Page

1. Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Adaptive Coping Indices....48

2. Pearson's Product Moment Correlations between Rejection Sensitivity Scores Overall Pathology Indices....49

3. Descriptive Statistics for ASR Adaptive Subscales and Overall Pathology Indices....50

4. Pearson's Product Moment Correlations between Rejection Sensitivity Scores and ASRP DSM Oriented Subscales....51

5. Pearson's Product Moment Correlations between Rejection Sensitivity Scores and ASRP Clinical Syndrome Subscales....52

6. Descriptive Statistics for DSM and Syndrome Subscales....53

7. Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Measures of Alcohol Use....54

8. Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Illicit Substance Use Frequency....55

9. Means and Standard Deviations of Various Alcohol and Illicit Substance Use Measures....56

10. Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Brief Cope Subscales....57

11. Pearson's Product Moment Correlations between Rejection Sensitivity Scores and NEO-PI-R Domain Scores....58

12. Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Neuroticism Facet Scores....59

INTRODUCTION

Rejection by others, unfortunately, is all too common for gay males in a variety of familial, occupational, social, and relational situations (Herek, 1998). Early patterns of rejection by caregivers and other important social supports sets into motion a rigid, intrapersonal dynamic that may manifest itself within an individual in future social scenarios as increased reactivity to rejection, loneliness, and interpersonal difficulties (London, Downey, Bonica, & Paltin, 2007). Rejection sensitivity is the tendency for people to anxiously expect, perceive, or overreact to rejection (Downey & Feldman, 1996). Utilizing attachment theory and models of relational self, rejection sensitivity accounts for a broad range of distress some persons experience in response to ambiguous and potentially rejecting social scenarios and interpersonal interactions. An individual of minority status such as a gay male may be particularly vulnerable to anxiously expect or inaccurately interpret rejection from other individuals in scenarios on the basis of their sexual orientation or membership with this stigmatized group.

For example, Luke is a 23-year-old gay male who is attending a party with a female companion. The nature of their relationship is platonic. Luke's friend leaves him momentarily, and he finds himself alone in a room with several heterosexual males watching football. When attempting to engage them in conversation the other men appear to be somewhat withdrawn and unengaged. When asked during the course of idle chatter if he has a girlfriend he becomes extremely anxious and interprets that their previous lukewarm response as indication of their awareness of his sexuality. Luke quickly decides to answer neutrally and not disclose his sexual orientation out of fear of being rejected by this group of men specifically because of his sexuality. In this situation, Luke demonstrates a rejection sensitive processing dynamic both cognitively and behaviorally. Cognitively he makes anxious expectations of rejection based on

his sexuality in response to the social information processing clues provided by heterosexual males within this stereotypic hypermasculine setting. Subsequently, he responds behaviorally by altering the amount of personal disclosure he deems safe to make within this context. This is fitting given that gay males demonstrating high levels of rejection sensitivity often respond by decreasing assertiveness (Pachankis, Goldfried, & Ramrattan, 2008).

This study will further expand the understanding of rejection sensitivity in gay males by examining the unique differences and characteristics of rejection sensitive gay men in the areas of psychopathology, coping, personality, and substance use. In order to provide a framework for this investigation the following sections will first offer a discussion of the development of the rejection sensitivity construct and major etiological theories related to it. Second, research findings on rejection sensitivity related to a broad variety of populations are examined. General sexuality development in gay youths and how the unique stressor variables impact their development are discussed next. Finally, unique stressors characteristic to the lives of gay men that place them at increased risk for developing sexuality-based rejection prone schemas are examined.

Rejection Sensitivity Construct and Etiology

Early psychologists, without the advantage of modern psychological research methods and social-cognitive paradigms, realized the importance of early relational dynamics between childhood caregivers and later outcomes of social relationships. It was thought that poor relationships with proximal caregivers set the stage for later maladaptive adult relationship patterns and social outcomes. The majority of these postulations were born out of a psychodynamic perspective; major figures in the study of this area include Karen Horney, Erik Erikson, and John Bowlby. Horney (as cited in Pietrzak, Downey, & Ayduk, 2004), the earliest

of these authors, viewed poor relational response and outcomes to be attributable to underlying anxiety about desertion, abuse, humiliation, and betrayal. Erikson (1950) wrote on how a fixed pattern of mistrust would lead to failure to adequately relate to others and form appropriate social attachments. Furthering these theories and offering the most elaborate model, John Bowlby's (1969) attachment theory provided a model that explained how social and relational outcomes were related to a caregiver's ability to meet needs for security and attachment during infancy and childhood. Mary Ainsworth and S.M. Bell's (1970) research later provided an experimental task of Bowlby's model. Bowlby suggested that children exposed to early relationships that were nurturing tended to have greater ability to later form successful, secure working relationships by drawing on early exemplars of secure working relationships. Conversely, children with non-supportive early caregiving experiences lacked essential early experiences upon which to provide models for later successful relationships. These theories provided a starting point towards investigating some of the underlying mechanisms at work in the process of attachment and their role on influencing later social outcomes.

With the growth of psychology and development from its nascent stages, the mechanisms of action underlying attachment models could be studied by operationalizing and translating psychodynamic processes into social-cognitive psychological models (Pietrzak et al., 2004). The subfields of social psychology and cognitive psychology provided conceptual organization and methodology used towards empirical and direct study implementing the use of social information processing paradigms. Principles related to attachment theory and social information processing were able to be measured, assessed, and evaluated, thus enabling researchers to study constructs such as rejection sensitivity that draw largely upon these models (Reis & Downey, 1999).

Rejection sensitivity utilizes portions of attachment theory while also using components related to social information processing, memory biases, and cognitive affective processing to more adequately explain and describe how rejection sensitivity operates within an individual (Pietrzak et al., 2004). Social interactions and decision making in various social scenarios is guided by top down processing mechanics. In other words, people rely on previously stored mental images, scripts, and schemas that have already been formed and cemented in order to make rapid evaluations of social situations (Olson, Roese, & Zanna, 1996). As such, a person's response and anxiety towards rejection is dependent on a complex interplay of factors both internally and externally but largely controlled by these pre-existing heuristics, some of which may not be entirely conscious within an individual. These types of processes are described as being "hot" or automatic such that decision making and interpretation of information is guided by rapid interpretation of set cognitive schemas. In contrast, cool processing is characterized by thoughts or interpretations that are carefully and rationally considered using all of the available information in the process of deliberation (Ayduk, Mischel, & Downey, 2002).

Pietrzak et al. (2004) offer a conceptualization of rejection sensitivity serving as a biologically based defensive motivational system (DMS). The authors pay consideration to the role of self-regulation as an inhibitor or disinhibitor of subsequent rejection sensitive responses. Further application of the DMS is provided by Downey, Mougios, Ayduk, London, and Shoda (2004) who conceptualize the DMS as a system that responds to threat cues from the environment and subsequently triggers behavioral response within an individual. Applied to the rejection sensitivity model, the defensive motivational system responds to acceptance or rejection cues in order to provide appropriate protective responses to the environment and subsequently causes an individual to shield themselves from potentially rejecting situations. This system is driven by two

affective-motivational systems, one that responds to positive stimuli such as rewards or desired outcomes (appetitive stimuli), or the behavioral activation system (BAS). In contrast, another system responds to rejection or negative outcomes (aversive stimuli), the behavioral inhibition system (BIS) (Gray, 1987). This system's response is comprised of two parts which determine the selection (valence) degree of the response (arousal). Valence is the direction of the response, avoid versus approach; whereas arousal determines the degree or magnitude of the response. Not only does the defensive motivational system serve as a "detection" system for rejection sensitive prone persons, but when activated encourages the individual to make efforts at mitigating potential rejection (Pietrzak, et al., 2004).

Additionally, the rejection sensitive model makes use of aspects of self regulation models. Negative outcomes resulting from inaccurately appraising social situations may be a product of maladaptive cognitive processing and an inability to self-regulate one's emotions or emotional control systems. As mentioned previously, the understanding and interpreting of various social scenarios, especially ambiguous ones, relies on top-down processing mechanics. Differences in self regulatory abilities in high rejection sensitivity may offer an explanation for the various degrees of response when high rejection sensitive persons are exposed to rejecting scenarios. Individuals high in rejection sensitivity that demonstrate greater abilities in self-regulation may be able to interrupt these top-down and hot processing mechanics by actively disrupting hot, automatic processing and engaging in cool processing methods that employ greater attention and active evaluation of cognitions (Pietrzak et al., 2004).

Consider the following case as an example: John is the classmate of Carmen in a Psychology 101 class and has been establishing a friendly relationship with her over the course of the term. John is attracted to Carmen and has a desire to further their friendship and pursue a

romantic relationship. Before class one day in the hallway John seizes the opportunity to ask Carmen out on a date that evening. After he asks Carmen, she suddenly appears to be distressed and is somewhat physically agitated and teary eyed. Carmen says, "That's sweet but I can't tonight, sorry" and abruptly walks away. If John was high on both trait levels of rejection sensitivity and self-regulation, it stands to reason that John would not be as affected by this denial and rejection if he were able to engage in self-regulation. Should John be a high self-regulator, he may be able to redirect and employ strategies by increasing vigilance to contextual and environmental factors and subsequently attribute appropriate causes towards a seemingly rejection laden scenario (i.e., she was in a state of distress, there were alternative reasons for denial). However, rejection sensitive persons lack this trait and would make attributions that attribute the rejection towards personal characteristics of themselves.

Before proceeding to explore rejection sensitivity associated literature, distinctions should be made between rejection sensitivity and social anxiety. Although similar to social anxiety, rejection sensitivity utilizes understanding of attachment theory in the explanation of the etiology of rejection sensitivity whereas social anxiety is fueled by cognitions related to self-presentation (Pachankis et al., 2008). Persons high in levels of rejection sensitivity tend to make attributions about their core self and features associated with unchangeable characteristics related to identity (Downey & Feldman, 1996; Mendoza-Denton, Purdie, Downey, & Davis, 2002; Pachankis et al., 2008). Persons demonstrating high social anxiety appear to be driven by the need to make a favorable impression about oneself and experience distress when unable to do so (Clark & Wells, 1995). Persons high in rejection sensitivity may show characteristics of social anxiety, especially during anxious expectations of rejection (London et al., 2007).

In brief, rejection sensitivity makes extensive use of both attachment theory and social-cognitive processing models. Rejection sensitivity is guided by top-down processing dynamics often causing persons to experience distress based on previously established cognitive scripts of rejection born out of early, prolonged, and first-hand experiences with rejection from caregivers and other intimate relationships. One conception of the function of such processing may be to serve as a defensive motivational system that offers a buffer or protection from future situations of rejection by altering behavior from early detection of such potential situations.

Applications of Rejection Sensitivity

A great deal of literature has been produced regarding rejection sensitivity in a variety of populations. Past research has examined rejection sensitivity in the contexts of neural dynamics, intimate/dating relationships, race, and its impact in health psychology. The following will provide a brief background of such literature pertinent towards building support for the present study.

A variety of measures of rejection sensitivity have been developed by the process of refinement and further the work of others. Downey and Feldman (1996) developed a measure in order to understand the role of rejection sensitivity in personal relationships and establish initial construct validity for their measure. Mendoza-Denton, Downey, Purdie, Davis, and Pietrzak (2002) created a measure to specifically examine race-based rejection sensitivity while Pachankis, Goldfried, and Ramrattan (2008) further expanded on their work to create a rejection sensitivity measure appropriate for studying rejection sensitivity related to sexuality. The following describes the development of these measures and the process of establishing the construct validity of rejection sensitivity.

Downey and Feldman (1996) operationalize rejection sensitivity as a broad tendency to anxiously perceive and readily interpret rejection in the ambiguous behavior of significant others. In order to test how rejection sensitivity mediates interpersonal behavior within the context of a relationship, they first seek to validate the construct and develop a rejection sensitivity questionnaire.

Their measure implements a two-level scale for each item, as is standard for present measures of rejection sensitivity. Subscale one prompts subjects to rate how anxious they would be about the response to their request where subscale two prompts subjects to rate their perceptions of whether they expect others to grant or deny their request. Both subscales are measured as continuous variables. Rejection sensitivity scores are obtained by weighting the expected likelihood of rejection by the degree of concern that it would occur thus measuring both the anxious and anticipatory components that comprise the rejection sensitivity processing dynamic. During the process of item development it was shown that results along these two dimensions did not co-vary systematically. In other words, some people may have been anxious making a request but did not expect rejection while others may not have been anxious about making the request but expected rejection; hence, only items generating variance along both dimensions were retained during the construction of their measure.

Building upon the first part of this study in which the construct of rejection sensitivity was operationalized, part two implemented this measure in the process of examining and demonstrating that anxious expectations of rejection predict a readiness to perceive rejection in interpersonal situations. By this process they demonstrate preliminary construct validity for this measure. In an experimental design consisting of both a control group and experimental group, subjects were paired with confederates and instructed to interact for a period of 5 or 10 minutes.

Experimenters and confederates were both blind to traits levels of rejection sensitivity in the subject (previously obtained). After this brief positive social interaction, experimental manipulation was achieved by telling subjects in the experimental group that the confederate no longer wished to continue without any information explaining the reasons behind this decline to participate further. This created ambiguity in the reason for refusal. Alternatively, subjects within the control group were told that the interaction ended early because of time constraints. Participants completed both pre and post measures of mood assessing rejection (assessing change in feelings of rejection), additionally subjects were also rated along externalizing behavioral dimensions by the experimenters after the interaction to provide another independent assessment of levels of rejection that was based upon observable behavior assessed by descriptive adjectives of behavior (e.g., upset, angry, happy, confused, no reaction). Observed negative reactions were found to be significantly related to participants' level of rejection sensitivity ($r = .52$, $p < .001$). By use of this experimental design, researchers demonstrated that the increase in feelings of rejection was caused by the experimental manipulation rather than preexisting levels of generalized distress that may be associated with persons high in rejection sensitivity.

Experimental data demonstrated that social scenarios with ambiguous social feedback generated higher feelings of rejection in high versus low rejection sensitive persons. Additionally, the feelings that were generated were inclusive of only feelings of rejection and not in overall feelings of emotional distress such as general anxiety. This demonstrates that rejection sensitive persons anticipate and interpret rejecting behavior in socially ambiguous behavior of others at greater levels than non-rejection sensitive persons.

The goal of the third part of this study was two fold. First, the authors sought to examine the connection between anxious expectations and perceptions of rejection in a partner's insensitive

behavior. This was accomplished through testing the predictive ability of a rejection sensitive score on attributions of harmful intent in a romantic partner's behavior. Secondly, the authors attempt to empirically demonstrate that rejection sensitivity and social anxiety are two distinct constructs. This was achieved by exploring how attachment styles and other variables related to attachment such as self-esteem accounted for anxious expectations and perception of rejection by the partner. Finally, given the possibility that rejection sensitivity may not be a distinct construct and rather just represent manifestations of trait personality characteristics such as high levels of introversion or neuroticism the authors demonstrate that the anxious expectations of rejection and harmful intent shown by partners were independent of these personality characteristics. Utilizing a longitudinal model, subjects who had previously completed the rejection sensitivity questionnaire in the first study, but had not been in a romantic relationship at the time were recruited. Participants completed the following measures: Attributions of harmful intent, Interpersonal Sensitivity Subscale from the Symptom Checklist-90, Social Avoidance and Distress Scale, Adult Attachment Style Questionnaire, Self Esteem Inventory, and Eysenck Personality Inventory. Utilizing a regression analysis, they demonstrated that people who anxiously expected and interpreted rejection by others (as measured by the Rejection Sensitivity Questionnaire) attributed harmful intent in the insensitive behavior of a romantic partner ($r = .39$, $p < .001$). Dispositional variables such as self-esteem, interpersonal sensitivity, social avoidance, social distress, attachment security, anxious avoidance, social avoidance, anxious ambivalence, neuroticism, and introversion were controlled for and none of these variables altered the relationship (partial $r = .38$, $p < .05$). Although these variables were significantly associated with subjects' rejection sensitivity scores in the expected theoretical direction, none of them uniquely predicted attributions of harmful intent in a romantic partner. This demonstrates that the use of

rejection sensitivity scores can predict the extent to which individuals attribute harmful intent in a romantic partner's insensitive behavior. Most importantly, this relationship was not accounted for by other variables related to social anxiety, attachment by itself, self-esteem, or personality traits such as neuroticism or introversion.

Another noteworthy conclusion within this study is the description of interpersonal behavioral styles within rejection sensitive romantic relationships. Generally, those in relationships with rejection sensitive persons were less satisfied. Behaviorally, rejection sensitive persons tend to respond with greater amounts of controlling behavior, hostility, and jealousy when threatened.

Mendoza-Denton et al. (2002) distinguish themselves from the prior body of work on rejection sensitivity by examining race as a variable that could trigger race-based rejection sensitivity. They propose that personal characteristics such as race moderate a specific type of rejection sensitivity and that additionally, minority group members may develop rejection prone schemas based on both direct and vicarious experiences with rejection. Before their work, no studies or rejection sensitive models had taken into account varied developmental paths of those who were of minority status. Majority class members (Caucasians, etc.) do not experience daily struggles with marginalization, whereas minority members witness first hand some of the detrimental effects of their minority status on themselves and others who share their minority classification (e.g., racially direct comments or epitaphs by the general public) (Mendoza-Denton et al., 2002). Because of this it stands to reason that although the rejection sensitivity constructs are similar, the variables that contribute to the development and maintenance of rejection sensitivity within a minority individual are different.

The development of the Race-Based Rejection Sensitivity Questionnaire continues to follow the lead of past researchers in viewing rejection sensitivity as a cognitive-affective

processing dynamic. Mendoza-Denton et al. (2002, p.899) define race-based rejection specifically as " [how a] person both expects rejection on the basis of his or her race and feels anxious or concerned about the possibility of this outcome, he is or is considered to anxiously expect race-based rejection"

Based on past models of rejection sensitivity and applying them to this new working model of race-based rejection sensitivity, Mendoza-Denton et al. (2002) make the supposition that there would be an association between the Rejection Sensitivity Questionnaire-Race questionnaire and subscales (measuring perception and interpretation of racism) on the Perceived Racism Scale. This is due to the cognitive-affective processing dynamic of rejection sensitivity. In order for one to experience race-based rejection sensitivity, they must be able to perceive racist events and interpret those events as threatening and subsequently experience an emotional response.

Initial testing to validate this measure involved the testing of the relationship between the RSQ-Race Questionnaire and the frequency of the perception of race-based discrimination and subsequent emotional interactions. Both correlations were significant, $r(72) = .46$, $p < .001$ and $r(72) = .30$, $p < .01$, respectively. The associations between these measures remained significant even when the effects of general rejection sensitivity or interpersonal sensitivity, ethnic identity, self esteem were partialed out. This demonstrates that rejection sensitivity measured by the RSQ-Race is measuring rejection sensitivity related to race and not general rejection sensitivity or variance due to the extent of ethnic affiliation or self esteem.

Additionally, comparisons of RSQ-Race scores were made between the Asian, African American, and Caucasian participants. Initial baseline measurement of overall self-esteem and interpersonal sensitivity indicated there were no differences between these groups; however, a difference was found in RSQ-Race scores. Measurements of self esteem and interpersonal

sensitivity were accomplished by using the RSQ (Downey & Feldman, 1996) and the Rosenburg Self Esteem Scale. The RSQ-Race measure indicated that African Americans scored higher than both Asians and Caucasians; whereas Asians scored higher than Caucasians. Given that no significant differences were found in initial overall levels of interpersonal sensitivity or self esteem but were found using a race-based rejection sensitivity measure, preliminary support is found for this construct that has expanded upon the previous work and theory of general rejection sensitivity models.

Cole, Kemeny, and Taylor (1997) sought to examine the relationship between rejection sensitivity and HIV progression in gay males. The relationships between psychological health, the impact of social relationships, and physical health have long been observed and recognized to be interdependent (House, Landis, & Umberson, 1988). To assess rejection sensitivity, the authors utilized a modified Social Situations Scale (McDonald, 1984). Items were altered from the original scale to better reflect content that would be applicable to social stressors of gay men (e.g., buying a book about homosexuality).

Relevant variables related to health and psychological functioning were assessed. Along psychological dimensions, statistical control was implemented for negative affective inclusive of anxiety, depression, and repressed coping styles. Other physical health variables were controlled for that could potentially affect HIV progression such as age, amount of continuing unprotected anal intercourse, use of antiretroviral medications, drug use (inclusive of alcohol, tobacco, or other illicit drugs), physical exercise and sleep. When other relevant factors were controlled for, results continued to indicate that higher levels of sexuality based rejection sensitivity as measured by the Social Situation Scale were associated with shorter times to lower levels of CD4 T-lymphocyte cell counts, shorter time to AIDS diagnosis, and shorter times for AIDS related

mortality to occur. It appears that rejection sensitivity can have not only negative psychological impacts, but may also impair the physical functioning of HIV positive gay men.

Expanding further upon Mendoza-Denton et al. (2002), Pachankis et al. (2008) applied the rejection sensitivity construct to sexuality. Gay related rejection sensitivity shares many of the common features related to race-based rejection sensitivity as status-based rejection, as the feelings of rejection are related to affiliation with a minority group rather than individual characteristics. Pachankis et al. (2008), notes that unlike race-based rejection sensitivity where children share their minority status with their parents, most gay males do not share their minority sexuality status with their parents.

Pachankis et al. (2008) recruited 75 gay males from gay venues located in major metropolitan areas. These participants were asked to generate scenarios in which their sexual identity had potential to create personal distress. The scenarios were developed such that each would illicit feelings of discomfort or anticipation of rejection in responders because of their sexuality. The subjects generated a list of 298 total scenarios in the following categories: work, medical, family, leisure, social and other. Narrowing of the item pool was accomplished by three independent coders forming a subset of clusters within each domain. For example, subsets of the family domain included religion, dating/marriage, children, special occasions, and extended family. After coding was completed, each of the three coders evaluated the clusters and selected one item to represent each cluster. Items were selected based on the following criteria: the items should represent each of the clusters, gay men should easily be able to imagine themselves in the situation regardless of actual life experiences, and that situations should evoke a variety of responses from gay males. Upon conclusion, a total of 14 items were generated that met the above criteria. These items were retained and utilized in the gay rejection sensitivity measure.

Once the measure was created, another sample was obtained using a predominately gay venue in a process similar to the first sample. One hundred forty nine gay males representing various ethnicities were selected for this second sample. This sample completed a number of measures including the Gay Rejection Sensitivity Scale, Brief Fear of Negative Evaluation Scale, Rauthus Assertiveness Scale, Internalized Homophobia Scale, Interpersonal Sensitivity Measure, Perceived Gay Discrimination Scale, an assessment of parental attitudes towards sexuality, and the Rosenburg Self Esteem Scale. Exploratory principal components analysis was conducted on the 14 items of the Gay Rejection Sensitivity scale. Results indicated that the data fit with a one-factor solution. The internal consistency of the items measured by Cronbach's alpha was .91 with a mean inter-item correlation of .42.

Convergent validity of the scale was accomplished by comparing the Gay Rejection Sensitivity Scale with measures that were thought to be theoretically related to the questionnaire. Pearson's product moment correlational analysis yielded moderate correlations with the Brief Fear of Negative Evaluation Scale, the Rathus Assertiveness Schedule, Perceived Gay Discrimination Scale, the Internalized Homophobia Scale, and the Interpersonal Sensitivity Scale. Because these correlations were only moderate, the authors posit that although these measures are assessing various elements tapped by the gay rejection sensitivity questionnaire, they are not interchangable.

Analysis of the discriminant validity of the scale was accomplished through similar methods used in the validation of the convergent validity of the RS scale. Comparisons were made between the present RS measure and subscales of both the Internalized Homophobia Scale (IHS) and the Interpersonal Sensitivity Measure. Correlational analysis demonstrated the RS scale is more highly correlated with theoretically related subscales on the IHS (perception of gay

stigma, interpersonal worry and dependency) than non-theoretically related subscales (low self-esteem, public identification as gay, moral and religious acceptability of being gay).

The objectives of this study were not only to create a measurement of gay related rejection sensitivity but also to test various relationships between status-based rejection sensitivity, internalized homophobia, and parental rejection. The following relationships were evaluated: mediation of the relationship between parental rejection and rejection sensitivity by internalized homophobia and the contribution of rejection sensitivity to unassertiveness within the context of parental rejection and internalized homophobia. It was found that internalized homophobia acts as a mediator between parental rejection and rejection sensitivity. Secondly, the authors found by utilizing hierarchical regression analysis that rejection sensitivity adds significantly to the ability to predict unassertive interpersonal behavior beyond parental rejection and internalized homophobia alone. As stated by Pachankis et al. (2008, p.312), "support for this mediation analysis would provide preliminary evidence for the utility of applying the rejection sensitivity construct to the rejection-related experiences of gay men and also evidence for the construct validity of the current measure."

Rejection sensitivity is capable of being studied from a variety of approaches and populations as demonstrated in this review of the literature. By drawing upon the variety of pre-existing studies Pachankis et al. (2008) were able to develop a measure capable of studying rejection sensitivity specifically in populations such as gay males and subsequently used that measure to elicit greater understanding of the interaction of several factors leading to problematic behavior in gay men. Given the measure's ability to predict unassertive behavior in gay men over and above internalized homophobia or parental rejection, this measure of sexuality-based rejection sensitivity may provide a new dimension and predictor variable from

which to evaluate various psychological outcomes experienced by gay men. Although the etiology is apparently similar with rejection sensitivity found in heterosexual populations and racial minorities, the developmental trajectories (e.g., parental rejection leading to internalized homophobia) of gay males provide for variable consequences and outcomes as a result of this processing dynamic. As demonstrated in Pachankis et al. (2008), the sexuality-based rejection sensitivity measure may provide a method to measure the impact of this unique and very specific construct on a myriad of concerns specific to gay men. Gay men experience unique concerns related to sexuality and negotiate their response to these concerns differently than other types of populations (Grossman, 1997). The following section discusses in greater detail the developmental trajectories of gay men that may cause the differences.

Sexuality Development

The development of rejection sensitive schemas is largely dependent upon the early developmental experiences of gay males, possibly more so than in a heterosexual sample (Pachankis et al., 2008). This section will provide a background on pertinent and relevant developmental processes occurring during the process of sexuality development. These later impact and mediate the development of rejection sensitive schemas and processing dynamics in gay men (Pachankis et al., 2008).

Graber and Archibald (1999) posit that the transition from childhood to adolescence is not defined by a single event or process but rather by a series of interrelated biological and psychological events. A transition is defined as an event in which there is a comprehensive reorganization of structure and function within an individual (Rutter, 1994). Biological markers of transition from childhood to adolescence include events such as menarche (beginning of menstruation) for females and spermarche (beginning of ejaculation with active spermatoza) for

males. Psychosocial events include increased discord within the parent / adolescent relationship as the dynamic between the two is renegotiated (Graber & Archibald, 1999). Adolescents must begin to redefine their overall identity not only in a sexual context but psychologically as well.

Specific to the transition in sexuality, adolescents must successfully interpret and alter behavior and interpersonal processes according to the emergence of this new sexual awareness. The context to which this occurs is not limited to a single domain but rather interpersonal, intra-personal, and societal domains. That is to say, sexual development does not occur within a vacuous state but is influenced by peers, parents, and attitudes about sexuality from a societal standpoint (Brooks-Gunn & Graber, 1999). Within the intrapersonal domain adolescents must interpret and integrate newly found sexual feelings into their overall identity. Interpersonally, adolescents look towards social interactions such as dating, peer norms, and parental norms to shape sexual identity. Lastly, society fuels and provides an overall higher guiding structure that shapes the development of parental and peer norms within the intrapersonal and interpersonal contexts (Brooks-Gunn & Paikoff, 1997).

Unlike their heterosexual counterparts who have guides and examples of expected norms throughout their development in the form of parents, peers, and society, gay males are expected to develop a cohesive sexual identity in the absence of these traditional supports (Rotheram-Borus & Langabeer, 1999). To this end gay males experience an additional and distinct developmental process - that of sexual identity formation as a minority and stigmatized individual. Given these additional stressors and lack of predefined roles and guides, gay males must look towards their environment around them to provide affirmation; however, in many cases this affirmation is entirely absent. Cass (1979) provides a theoretical framework that describes the progression of sexual identity formation in homosexuals through six stages:

identity confusion, identity comparison, identity tolerance, identity acceptance, identity pride, and identity synthesis. These stages are fluid rather than fixed such that no individual experiences all of these stages at a specific time or for a specific length but rather progresses through them depending on a variety of internal and external variables (Cass, 1979).

Stage models of sexuality identification are relevant to this study given that sexuality is a trait that can be concealed in persons, unlike race or other physically obvious factors relating to other types of rejection, one should assess this dimension in the process of gathering data related to sexual minority groups. Pachankis et al. (2008) found that the mean sexuality openness was found to be 6.17 as rated on a Likert scale ranging from 1 (sexual orientation hidden completely from others) to 7 (completely open with others about sexual orientation). Given that the sample used to construct the gay rejection sensitivity measure was high on openness in levels of sexuality it is logical to follow the lead of prior authors and ensure the final sample of gay males for this study match on levels of openness relating to sexuality. It is possible that a gay male who is presently progressing through earlier stages of sexuality development such as identity confusion is likely to display low levels of disclosure related to sexuality. A gay male who does not identify publicly as gay would have little reason for concern about rejection as a result of affiliation with this group. Alternatively however, it may be that gay males who are high on rejection sensitivity choose to conceal sexuality at greater levels than lower rejection sensitivity gay men, although this has yet to be empirically established. Additionally, as Pachankis et al. (2008) notes, gay men who are not affiliated strongly with this minority group may not utilize sexuality in the process of organizing social information and cues around them.

The process of developing a sexual identity is a tenuous process for even heterosexual adolescents. For a gay male, this process is made even more complex given lack of support and

perhaps even initial non-recognition of sexuality or unwillingness to address sexuality. This type of developmental milieu provides an increased likelihood for the development of early schemas contributing to later maladaptive and rejection prone processing dynamics. The following section provides specific information on gay-related stressors that foster the potential for development of sexuality based rejection schemas in conjunction with the previously described arduous developmental history.

Implications of Minority Status for Sexual Minorities

Gay individuals develop and live their lives with the backdrop of varying levels of discrimination and stigmatization resulting in a broad continuum of abuses ranging from less obvious victimization such as denial of constitutional rights to overt violence and physical victimization. Unlike other racial and religious minorities, the GLBT population is often not seen as a legitimate minority group (Diplacido, 1998). Goldfried and Goldfried (2001) argue that lack of recognition as a legitimate minority group and lack of heterosexual allies (specifically parents of GLBT persons) further contributes to stigmatization. This section will provide information regarding the direct consequences of membership in a marginalized minority group in order to further understanding of the difficulties faced by this population.

Stigma, heterosexism, and homophobia all play a role in the maintenance of ongoing victimization of gay males. Early experiences of rejection by parental figures and other close supports are driven and sanctioned by the attitudes of the larger heterosexual society. These effects of marginalization contribute to stigma, feelings of worthlessness, shame, and rejection which are important developmental variables later leading to rejection prone schemas and maladaptive behavioral response. Subsequently, the characteristics displayed by high rejection sensitive persons are a lack of assertiveness, aggression, increased social anxiety and difficulties

in maintain social relationships (Downey & Feldman, 1996; London et al., 2007, Pachankis et al., 2008).

Stigma is any characteristic that discredits an individual from the general body of society – these characteristics may be visible (physical deformity) or hidden (alternative sexuality) (Diplacido, 1998). Unlike many other stigmatized groups, gay males are considered to have underlying moral imperfections associated with their character and as such are thought to be "unhumanlike" by the broad public (Herek, 1998) . Perceptions and stereotyping are thought to allow for the continuation and justification of negative attitudes and actions towards out-group members (Devine, 1995; Grossman, 1997). Often gay males will internalize these negative messages sent by society and subsequently feel shame and guilt regarding their sexuality in a process called internalized homophobia (Center for Substance Abuse Treatment, 2001). Efforts must be made by gay men on a continuous basis in an attempt to regulate the amount of disclosure they provide to others about their sexuality.

As stated previously, parental rejection is a large part of the development of sexuality based rejection sensitivity (Pachankis et al., 2008). D'Augelli, Hersberger, and Pilkington (1998) carried out a study examining disclosure of sexuality and subsequent parental reactions towards disclosure of sexual orientation in a sample of 105 adolescents, all of whom resided with their parents. The majority of the sample (77%) indicated that they first made disclosure of their sexual orientation to a friend rather than a parent. Average age of disclosure to a friend was age 16. Disclosure to a parent occurred, on average, at age 17. Of greater interest, the authors found that disclosure of sexuality to family members was associated with greater comfort in revealing their sexuality in other domains such as within the community, school environment, and socially. Despite approximately 50% of individuals reporting reactions of acceptance or tolerance, data

indicated that there were still problematic consequences to disclosure in the form of verbal abuse. 24% of gay males reported verbal abuse by mothers and 19% of gay males reported verbal abuse by fathers while overt physical threats of attacks by mothers or fathers on gay males were relatively minimal (less than 3% for all categories).

This study by D'Augelli et al. (1998) provides insight to the home life in which gay males must develop. It appears that at times, gay males first disclose to friends rather than family members as they may perceive friends to be more supportive and less hostile. Instead of turning to families to find support during this difficult time of experiencing feelings of alienation and rejection, gay males use friends to first "test the waters." This may be because of already active rejection sensitive scripts or simply prodromal rejection sensitive behavior resulting from recognition of salient hostile cues. If and when gay men do decide to disclose to family members they are often met with rejection and hostility furthering feelings of rejection and isolation (D'Augelli et al., 1998). This in turn fits with the rejection sensitive model that considers the impact of continuous and prolonged rejection responses experienced during youth and the proximal care-giving relationships impacting the development of rejection sensitivity (Downey et al., 1996; Downey et al., 2004; London et al., 2007; Pietrzak, Downey, & Ayduk, 2004). Gay males are also at risk for parental physical abuse as demonstrated by Corliss, Cochran, and Mays (2002). Corliss et al. (2002) examined parental maltreatment during childhood using a retrospective approach via telephone surveys in a comparison of homosexual, bisexual, and heterosexual males. Gay males reported higher levels across all domains (emotional, physical, or major physical maltreatment) of parental maltreatment compared to heterosexual males. While causal factors were not under study, the authors propose four factors that contribute to such maltreatment: (a) Direct disclosure of sexuality (b) Gay males have a greater tendency to engage

in disruptive behavior such as alcohol and drug use leading to greater disruption of normative parent-child relationships (c) Features of gender atypicality in gay males and subsequent reactions of maltreatment by parents (d) Other unidentified childhood behaviors that signal non-heterosexual orientation to parents.

Cochran and Mays (2000) indicated that gay or lesbian persons demonstrate elevated risk for various psychiatric disorders. Specifically, gay males show increased rates for depressive disorders while lesbian females show increased rates for substance use disorders. The mechanism behind this increase is not entirely understood but it is thought that the increased effects shown may be a result of social distress relating to unique stressors experienced by gay men and lesbian females such as discrimination and homophobia.

Mays and Cochran (2001) explored the relationship between discrimination and elevations of various psychiatric disorders in order to better understand the role that discrimination may play on psychiatric distress. In their study, perceived discrimination was measured in four domains: (a) lifetime occurrences of discriminatory experiences, (b) frequency of day-to-day discrimination, (c) reasons for discrimination, and (d) general effects of discrimination. Measures of psychiatric distress were obtained using the Composite International Diagnostic Review Short Form (see Mays & Cochran, 2001), appropriate for measuring 5 stress-sensitive psychiatric disorders such as major depression, generalized anxiety disorder, panic disorder, and alcohol / drug dependency. The relationship between various measures of discrimination and psychopathology were analyzed using a logistic regression. Demographic variables such as sex, age, race, educational achievement, income, and relationship status were thought to be confounds in the perceptions of discrimination. As such, these variables were covaried in the analysis of the data.

In comparing the homosexual population to the heterosexual population, there was an elevation in psychiatric distress, and there was a trend in data for these individuals to report either fair or poor current mental health state. Several key findings were elucidated through this study. The first set of these findings pertain to the attribution and frequency of discrimination. The majority of homosexual and bisexual participants who report discrimination do not attribute it to race, age, nationality etc., but rather to their sexuality. Secondly, homosexual and bisexual participants were more likely than heterosexuals to report occurrence of lifetime and day-to-day experiences with discrimination. The second set of these findings pertain to the relationship between discrimination and psychological distress. Perceived discrimination was found to be positively related to three indices of mental health status. First, individuals reporting any lifetime or day-to-day discriminatory event were more likely to display a psychiatric disorder. Second, self-rated poor or fair mental health functioning was associated with lifetime or day-to-day discrimination. Lastly, current psychological distress was associated with reporting lifetime or day-to-day discrimination.

This article (Mays & Cochran, 2001) demonstrates that marginalization of gay, lesbian, and bisexual individuals in the form of various types of discrimination has the potential for increasing total rates of psychiatric disorders within this population. It is not that being gay or bisexual in itself causes this propensity to display elevated levels of psychiatric disorders, but possibly the burden of increased discrimination experienced by these individuals.

Present Study

The development of the rejection sensitivity model has provided this area of research with a fundamental understanding of the development of rejection sensitivity and associated processing dynamics. Work by Downey et al. (1996) first tested the model in the context of behavior within

an intimate relationship; however this was confined to a heterosexual population. Mendoza-Denton et al. (2002) applied the model towards rejection sensitivity in the context of racial sensitivity or status-based sensitivity. Pachankis et al. (2008) were the first to apply and develop a measure of rejection sensitivity as it pertained to the concerns of gay males. However, given the recent development of the measure, little research to date has utilized this measure to evaluate individual differences in the functioning of gay men based upon this characteristic. This study will be novel in that it will use this measure of gay rejection sensitivity and in the process examine the relationship between rejection sensitivity and various domains related to psychological functioning in gay males. Differences in the areas of psychopathology, coping, alcohol and illicit substance use, and personality structure will be explored. This information will be useful in better understanding rejection sensitivity in gay males and the impact that this particular type of processing dynamic may play in various psychological factors. Additionally, this information may have applications within a clinical setting, particularly in the treatment and counseling of gay males who are experiencing present distress associated with their sexuality.

Hypotheses

1. There will be a positive relationship between rejection sensitivity and levels of psychopathology. In particular, levels of depression and anxiety, will predict rejection sensitivity scores.

2. There will be a positive relationship between rejection sensitivity scores and alcohol use. This is likely given that alcohol serves as a negative reinforcer thus providing relief for negative affective states. Additionally, there will be a positive relationship between rejection sensitivity scores and frequency of substance use. In particular, the relationship will be seen in the stimulant

class of drugs such as methamphetamine and cocaine given the propensity of this population to use these drugs (Halkitis, Solomon, Moeller, Doig, Espinosa, Siconolfi, & Homer, 2009).

3. There will be a positive relationship between rejection sensitivity and maladaptive coping strategies such as denial, substance abuse, behavioral disengagement, or self blame (see Carver, 1997) in response to stressful or aversive life events. Additionally, rejection sensitivity will be associated with more adaptive coping strategies such as active coping, planning, positive reframing, acceptance, humor, religion, use of emotional & instrumental support, or venting.

4. Domain scores of neuroticism and agreeableness will predict rejection sensitivity scores. There will be a positive relationship between neuroticism domain t-scores and rejection sensitivity. There will be a negative relationship between agreeableness domain t-scores and rejection sensitivity.

METHODS

Participants

Participants were recruited from major metropolitan areas in the southeastern region of the United States including Atlanta, Charlotte, and Washington DC and through Facebook from the respective geographical areas that were used for in-person recruiting.

During the recruitment period, the primary researcher approached potential research participants in primarily gay-oriented night clubs and bars and provided them with a brief background of the proposed study. Individuals who were interested were given a business card with contact information and web-link information to SurveyMonkey. Subjects then accessed the research protocol from any location with Internet access.

A total of 242 participants accessed the online system and provided consent for participation in the research study. Of these 242 individuals, 14 individuals were excluded from the analysis as

they indicated sexual orientation other than gay (e.g., bisexual or straight). Of the remaining 228 individuals, 141 subjects completed the study in its entirety yielding a total attrition rate of 38.2%. The majority of the sample was recruited in-person (75.1%) while the remainder of the sample was recruited on-line (24.1%). Ages ranged from 18-59 with a mean of 34.98 (SD = 10.65). After excluding the 14 subjects who indicated either bisexual or straight sexual identify affiliation, the entire remaining set of subjects identified exclusively as gay with a mean sexuality openness score of 5.89 (SD = 1.13). The sample was predominantly Caucasian (85%). Other ethnicities included in the sample were black (2.8%), Hispanic (4.3%), Latino (1.4%), Asian (1.4%), Pacific Islander (0.7%), multiple ethnicities (2.1%), and other ethnicities (2.1%). A larger than expected geographical region was represented as many participants reported living outside the principle geographic recruitment areas. The majority of the sample, 68.7%, reported living within the principle recruitment area (i.e., District of Columbia, Virginia, Maryland, North Carolina, Georgia). The remainder of the sample was represented by the following states: Alabama (0.7%), Arkansas (1.4%), California (2.1%), Colorado (0.7%), Florida (5.0%), Illinois (0.7%), Minnesota (1.4%), New York (2.1%), Ohio (5.0%), Oregon (0.7%), Pennsylvania (0.7%), Tennessee (2.8%), Utah (0.7%), and Washington state (2.1%). A total of six individuals or 4.2% of the sample provided invalid zip codes and subsequently could not be coded to a particular state.

Measures

Demographics. Seven item measure that gathers pertinent demographic information including age, geographic location, sexuality, level of sexuality disclosure (outness), race, and education level. (Appendix A)

NEO PI – R (Costa & McCrae, 1992). Self report form designed to assess the Five Factor Model of Personality including the dimensions of openness, conscientiousness, extraversion, agreeableness, and neuroticism. The NEO PI-R is a norm referenced measure that demonstrates internal consistency reliabilities ranging from .86 to .95 for the 48-item domain scores and .56 to .90 for the 8 item facet scores. Additionally, test-retest reliabilities ranged from .66 to .92 for the domain and facet scores across various time frames ranging from a few weeks to years.

Modified Quantity Frequency Index (Cahalan, Cisin, & Crossley, 1969). The QFI is a self-report questionnaire that obtains quantitative measures of the frequency of days drinking in the last 3 months as well as the typical quantity of alcohol consumed on both weekdays and weekends. Additional measures of drug use were obtained that evaluated substance use over the course of a subjects lifetime, past three months, and past thirty days for the following substances: nicotine, marijuana, cocaine, amphetamines, benzodiazepines, heroine, other opiates, hallucinogens, GHB, and Ketamine. (Appendix B)

Brief Cope Measure (Carver, 1997). Twenty-eight item measure comprised of 14 subscales measuring coping along the following dimensions: active coping, planning, positive reframing, acceptance, humor, religion, use of emotional support, use of instrumental support, self-distraction, denial, venting, substance use, behavior disengagement, and self-blame. Carver (1997) reports all alpha reliabilities exceed .60 except for venting, denial, and acceptance subscales. These three subscales exceed alpha reliabilities of .50. (Appendix C)

Gay Rejection Sensitivity Questionnaire (GRSQ; Pachankis et al., 2008). The measure is a fourteen item scale measuring sexuality based rejection sensitivity. Together, the fourteen

items represent one unitary factor. The internal consistency, as measured by Cronbach's alpha is .91. The average inter-item correlation of the items is .42. (Appendix D)

Adult Self Report Form (Achenbach & Rescorla, 2003). Multi-item form that evaluates psychopathology. Additionally, the measure contains adaptive measures of functioning in the areas of work, family, friends, and education. This measure was used to obtain a measure of various types of psychopathology along a wide variety of dimensions. Along the syndrome scales, pathology related to anxiety, social withdraw, somatic complaints, thought problems, attention problems, aggressive behavior, rule-breaking behavior, and intrusive thoughts are measured. Along the DSM-oriented subscales problems relating to depression, anxiety, somatic, avoidant personality, ADHD (Attention-Deficit / Hyperactivity Disorder), and antisocial behaviors are measured. The internalizing disorder subscale is comprised of a variety of items related to symptoms such as depression, anxiety, withdrawal, and somatic complaints whereas the externalizing disorder subscale is comprised of a variety of symptoms related to aggression, rule-breaking behavior, and inattentive items. These results of these scales are reported as T-scores.

Procedure

This study received UNCW IRB approval before data collection began. Subjects accessed the online surveys and were provided with an initial consent screen providing informed consent and information about the voluntary nature of participation. Consent was obtained and recorded by subjects acknowledging and entering the current date into a text field before being allowed to continue with the study. Upon entering the survey, subjects completed the demographic sheet, Gay Rejection Sensitivity Questionnaire, NEO-PI-R, Brief COPE Measure, Quantity Frequency Index, and Adult Self Report Measure . Following completion of all measures, participants were

provided an email address to which they could email contact information (name, phone number) to be entered into a lottery. In this manner, the identifying information could not be linked to survey responses. Upon completion of collecting the sample, eight winners were chosen at random and notified of their prize. The prizes consisted of six $25 gift certificates for iTunes online store as well as two $100 cash prizes.

RESULTS

Current GRSQ scores were analyzed with descriptive statistics. Cronbach's alpha was utilized as a measure of reliability. Additionally, Pearson's Product Moment Correlations were run between the GRSQ scores and self reported levels of sexuality disclosure and age. The current sample's mean on the GRSQ was 10.67 (SD = 5.61). GRSQ scores were normally distributed and ranged from 2.13 to 29.93. Cronbach's alpha indicated a reliability coefficient of .91. Pearson's Product Moment Correlations indicated no significant correlation between rejection sensitivity scores, age, and level of sexuality disclosure. Additionally, the sample was generally well educated with the majority participants (70.9%) achieving a bachelor's degree or higher.

Given the high rate of attrition, one-way analysis of variance (ANOVA) was conducted to determine if subjects who completed the study (completers) differed from subjects who did not complete the study (non-completers) on demographic variables of age and sexuality openness scores. The analysis demonstrated that completers versus non completers differed significantly from one another based on age F (1, 209) = 11.84, $p < .001$. Completers were older as a group than non-completers. There was no significant difference between completers and non completers based on sexuality openness F (1, 209) = .002, $p > .05$. Additionally, a chi square test of independence was utilized to examine if there was a difference between non-completers and completers based on race (Caucasian versus non-Caucasian). Chi square analysis indicated that

there was no significant difference between completers and non-completers based on race, χ^2 (2, N = 215) = 5.63, p > .05.

To examine the first hypothesis, that levels of psychological distress will predict rejection sensitivity scores, Pearson's product moment correlations were run on the various scales of the ASR (adaptive coping index, overall pathology indices, DSM scales, and Syndrome Scales) and rejection sensitivity scores to evaluate the relationship between these variables. Results indicated that on the adaptive coping indices, there was a small but significant negative relationship between rejection sensitivity scores (M = 10.67, SD = 5.61) and adaptive coping scores in the domain of friendships. The remainder of the relationships between rejection sensitivity scores and adaptive functioning in the domains of romantic partner, family, employment and education were non-significant (see Table 1 for correlations between these scales). Follow up simple regression analysis indicated that adaptive functioning t-scores for friendships significantly predicted rejection sensitivity scores β = -.197, t (139) = -2.34, p < .05. A partial correlation was performed between rejection sensitivity scores and adaptive coping friendship scores controlling for age. Results indicated a significant relationship between rejection sensitivity scores and adaptive coping friendship scores, *partial r* (136) = -.204, p < .05.

On the overall pathology indices, a second Pearson's product moment correlation analysis indicated a small but significant positive correlation between rejection sensitivity scores and internalizing disorders scores of the ASR. There was no significant relationship between rejection sensitivity scores and externalizing disorders or critical items (see Table 2 for correlations between these scales). Follow up simple regression analysis indicated that internalizing t-scores significantly predicted rejection sensitivity scores β = .179, t(138) = 2.13, p < .05. A partial correlation was performed between rejection sensitivity scores and

internalizing disorder scores of the ASR controlling for age. Results indicated a significant relationship between rejection sensitivity scores and internalizing disorder scores, *partial r* (136) = .185, $p < .05$. See Table 3 for means and standard deviations of ASR adaptive subscales and overall pathology indices.

A third Pearson's product correlation analysis was run between DSM-oriented subscales of the ASR and rejection sensitivity scores. Results indicated no significant relationship between the DSM-oriented subscales and rejection sensitivity scores (see Table 4 for correlations between these scales). Finally, a fourth correlation analysis was run between the syndrome scales and rejection sensitivity scores. Results indicated no significant relationship between the syndrome scales and rejection sensitivity scores (see Table 5 for correlations between these scales). See Table Six for means and standard deviations of ASR DSM and Syndrome subscales.

To evaluate hypothesis two, items measuring drinking behavior were obtained from both the Quantity and Frequency Index and the Achenbach Self Report form. In respect to alcohol use, the following measures were included in the analysis: (a) total number of days in the last three months in which an individual drank alcohol, (b) estimated average drinking on a typical weekday / weekend, (c) largest amount of alcohol consumed in a 24 hour period, and (d) alcohol use t-scores obtained from the Achenbach Self Report form. For the items on the Achenbach that evaluated estimated drinking on the weekday / weekend, the self-reported amount of beer, wine, and liquor consumed was summed to yield a total quantity of alcohol consumed as measured by standard drinks (e.g., 1 beer, 2 shots of liquor, 1 glass of wine summed to 4 standard drinks). The total sum of the participants drinking was entered into the final Pearson's product moment correlation analysis. With respect to illicit substance use, data was evaluated from one item on the QFI that evaluated frequency of substance use for the following types of

drugs: caffeine, nicotine, marijuana, cocaine, methamphetamine, benzodiazepines, heroin, other opiates, hallucinogens, GHB, MDMA, and ketamine. Additional measures of substance use were derived from the Achenbach Self Report Form. Drug use t-scores as well as t-scores representing overall substance use were also evaluated in the analysis. Data was excluded from the substance use analyses for one participant as they reported their reason for not drinking and / or abstaining from illicit substances was because they were in recovery.

Hypothesis two was unsupported. Results from Pearson's product moment correlation analyses indicated no significant relationship between rejection sensitivity scores and total number of days that alcohol was used in the last three months, average number of drinks consumed on a typical weekday / weekend, largest amount of alcohol consumed in a 24-hour period, and alcohol use t-scores (see Table 7 for correlations between these scales). Finally, there was no significant relationship between rejection sensitivity scores and frequency of illicit substance use for all substances as reported by the QFI as well as the two measures of substance use on the Achenbach self report form (See Table Eight for correlations between these scales). See Table 9 for means and standard deviation of the various substance use scales.

To evaluate hypothesis three, Pearson's product moment correlations were run between rejection sensitivity scores and the fourteen Brief Cope subscales. Pearson's product correlation analyses indicated a small but significant relationship between rejection sensitivity scores and denial. Follow up simple regression analysis indicated that rejection sensitivity significant predicted denial subscale scores, scores $\beta = .170$, $t\ (140) = 2.04$, $p < .05$. The remaining subscales demonstrated a non-significant relationship with rejection sensitivity scores (see Table 10 for correlations between these measures). An additional partial correlation analysis was conducted between rejection sensitivity scores and Brief Cope denial subscale scores controlling

for age. Results indicated a significant relationship between rejection sensitivity and the Brief Cope Denial subscale, *partial r* (138) = .171, $p < .05$.

To evaluate hypothesis four, Pearson's product moment correlations were run between rejection sensitivity scores and NEO-PI-R domain scores. Results indicated a significant relationship between rejection sensitivity scores and neuroticism domain scores (see Table 11 for correlations between these measures). Follow-up simple regression analysis indicated that neuroticism domain t-scores significant significantly predicted rejection sensitivity scores, $\beta = .203$, t (141) = 2.446, $p < .05$. An additional partial correlation analysis was conducted between rejection sensitivity scores and neuroticism domain t-scores controlling for age. Results indicated a significant relationship between rejection sensitivity and neuroticism domain t-scores, *partial r* (136) = .216, $p < .05$. Pearson's product moment correlations were run between rejection sensitivity scores and the six facet scales falling under the domain of neuroticism. There was a significant relationship between rejection sensitivity scores and the anxiety and self consciousness facets (see Table 12 for correlations between these measures). Contrary to hypothesis four, there was no significant relationship between rejection sensitivity scores and agreeableness domain scores. Furthermore, there were no significant relationships found between rejection sensitivity scores and the remaining Five-Factor domain scores on openness, conscientiousness, and extroversion.

DISCUSSION

The present study offers an exploration of the relationship between sexuality-based rejection sensitivity and various psychological factors relevant to gay men. The general lack of support for the hypotheses, as well as the minimal significant correlations for other hypotheses, in and of themselves, are informative. The current data may offer a starting point from which

further research in this area could advance despite the weak relationships demonstrated in the present study. The results may be indicative of three possible situations. One, the current rejection sensitivity measure may be inadequate in measuring the purported construct. Two, rejection sensitivity may be unrelated to the various psychological constructs explored in any significant way. Additionally, other psychological factors relevant to gay men such as internalized homophobia or parental rejection / acceptance may be confounding the data. Or three, methodological issues of the study or other threats to the internal validity may have introduced excessive error into the data such that relationships that may actually be present were not detected or weakened. Furthermore, as stated previously, the exact relationship between levels of sexuality disclosure and sexuality-based rejection sensitivity was previously unknown and undetermined. It appears that based on the present data, however, that there is no significant relationship between sexuality based rejection sensitivity and levels of sexuality disclosure. A correlation between rejection sensitivity scores and levels of disclosure yielded a correlation of $r = .04$, $p > .05$. Apparently, it may be possible for someone who does not publically identify as gay to experience high levels of rejection sensitivity. Despite the shortcomings and small correlations, one may still utilize the present data to make conjectures regarding the relationships between sexuality based rejection sensitivity and the constructs under current investigation. Given however, the lack of strong findings within this study, these conjectures should be made with caution.

In the process of constructing the GRSQ, zero order correlations between GRSQ items and theoretically related measures were used to establish convergent validity. Correlations ranged from -.30 to .39, indicating that even the most strongly theoretically related measures were only moderately correlated with the GRSQ. Pachankis et al. (2008) viewed these small to

moderate correlations as evidence that the GRSQ and related measures are not interchangeable with measures of interpersonal sensitivity and a tendency to perceive gay related stigma. It is their view that this is desirable in the process of creating this measure as the GRSQ is measuring and tapping variance unique to rejection sensitivity. In the second part of the study, the GRSQ was used to examine the relationship between GRSQ scores, parental rejection, internalized homophobia and assertiveness. The correlations between these variables could be characterized as weak or modest at most. Given the similar pattern of weak relationships found within the results of the present study, it may be that the GRSQ is not adequately able to assess sexuality based rejection sensitivity or may require further refinement. As such, this may have may have contributed to the small correlations contained within the present study.

Furthermore, given that this measure is relatively new, there is a lack of psychometric data on this measure. Although the seminal study in which the GRSQ was developed reports psychometric properties such as Cronbach's alpha and inter-item correlations, there is no existing information in the extant literature providing data on other studies in which this measure has been utilized. Given that past research has not utilized the GRSQ in other areas of study it is difficult to determine the validity and subsequent effectiveness of a measure that essentially remains in the nascent stage of development within this specific and narrow area of research. The present study may provide indication that further refinement and development of the GRSQ is necessary.

In discussing other viable explanations for the weak correlations in this study, it may be that other factors are at work in explaining the relationships between the variables under investigation. Other factors such as internalized homophobia or parental acceptance / rejection, or even broad non-sexuality based rejection sensitivity may serve as better criterion variables

than the current sexuality based rejection sensitivity scores. In this respect, given that these variables were not assessed in the present study they may be acting as confounds within the current results. A follow-up study may benefit by including these measures in the data collection process and subsequently evaluating the relationship between these measures and dependent variables of interest contained within the present study.

Methodologically, there may be several factors that contributed to the weak correlations found within the present study. The rate of attrition within the study (38%) may have led to bias within the sample such that accurate relationships between predictor variables and outcome variables were not able to be represented. Given that the majority of the sample dropped out following completion of the demographic form it was determined that completers versus non-completers differed significantly based on age. This was somewhat controlled for by following any significant Pearson's product moment correlations with partial correlations controlling for age. Additionally, a correlation indicated that for completers, rejection sensitivity was not significantly correlated with age. However, given that the vast majority of subjects who dropped out did not complete the GRSQ, there is no way to determine if this non-significant correlation would stand if the non-completer's data was included within this analysis. Second, the method in which the battery of various measures was presented through the SurveyMonkey system led to two possible methodological issues. First, the measures could not be presented in random fashion given technical restraints which could have in turn led to order effects. Secondly, the lengthy nature of the study (2.5 hour response burden) may have resulted in data that was subject to fatigue effects and subsequently was more prone to error.

In regards to the sample utilized to construct the GRSQ, Pachankis et al. (2008) stress the importance of "not extrapolating to individuals that do not match those in our sample." (p. 315)

Based on current key demographic variables such as age, ethnicity, and level of sexuality disclosure, it appears the current sample matches on these variables to the sample utilized to construct the measure. However, it should be noted that the geographical representativeness of this sample represents greater diversity than the sample used to construct the GRSQ.

Despite the previous limitations there may be implications provided by the existing data. Results indicated small but significant relationships between adaptive coping in the area of friendships as well as internalizing disorders. Past research studies in the area of rejection sensitivity have indicated in heterosexual populations that high rejection sensitive persons within the context of romantic relationships exhibit controlling behavior, hostility, and jealousy (Downey and Feldman, 1996). Additionally, work by London et al. (2007) demonstrated that rejection sensitive prone children may exhibit behaviors characterized by anger and anxiety in response to rejection social scenarios. It is possible that similar patterns of behavior may apply to later adult relationships within the context of friendships. These subsequent behaviors may be accounting for the inverse relationship between adaptive coping friendship scores and sexuality-based rejection sensitivity. It would be necessary to increase the sample size such that a different type of data analysis could be run using ANOVA procedures to determine if there were a difference between high and low sexuality based rejection sensitivity persons on the trait of adaptive functioning in friendship. Furthermore, use of experimental design and manipulation would allow for more definitive answers than would the present survey and correlational methodology utilized. An additional study of interest, assuming definitive differences between high and low sexuality-based rejection sensitivity, would be the exploration of the differences in the maintenance of heterosexual versus homosexual friendships within the context of high levels of sexuality-based rejection sensitivity.

Further, the significant relationship between GRSQ scores and internalizing problems on the Achenbach Self Report measure may be important. The internalizing subscale is representative of a combination of the internalizing syndrome scales (anxious, depressed, withdrawn, and somatic complaints). Individually, none of these subscales predicted rejection sensitivity scores; however, when combined to create the composite subscale of "internalizing disorders" a significant relationship was found. Using the current data one can conclude there is a small positive relationship between rejection sensitivity scores and internalizing problems as a whole. Therefore, one may conclude that sexuality-based rejection sensitivity is associated with more generalized levels of distress rather than any one specific syndrome.

In reference to alcohol and illicit substance use, it appears there is no relationship between sexuality-based rejection sensitivity scores, alcohol use, and illicit substance use. To date, no study has addressed this topic within the construct. As such, it is impossible to determine if these results are typical or atypical. Given the lack of significant findings on multiple measures of alcohol and substance use obtained from both the QFI as well as Achenbach self report form, it appears that substance use is not part of the behavioral response resulting from rejection sensitivity processing dynamics. Alternative explanations for the lack of significant findings may stem from methodological issues and / or problems with measuring sexuality based rejection sensitivity as previously mentioned. Caution should be noted in reliance solely upon self-report measures of substance use as these measures may be subject to bias in under-reporting that is intentional or non-intentional (Hagman, Cohn, & Noel, 2010). Further refinement for collection of this data could integrate collateral reports from friends, objective measures of substance abuse such as immuno-assays, or behavioral observations. Inclusion of these methods was outside of the scope of the present study.

Particularly relevant to the concerns of gay men are methods of coping with distress resulting from perceptions of stigma, sexual orientation, and discrimination. The Brief Cope measure demonstrated a weak correlation with denial as a coping strategy in this sample of gay men. Given that the brief cope contains 28 items measuring 14 coping strategies, the result is difficult to interpret as the denial subscale is only represented by a total of two items of this current measure. The full Cope measure may have been utilized but it would have increased the already long response burden on participants. The wording in the direction of this measure prompts participants to think about "the most stressful situation occurring the past year" and does not provide for subjects to write in a qualitative response to indicate what stressful event they had selected in the process of evaluating their coping responses. As such, it is impossible to know specifically what subjects were using to respond to the items of this measure. As Carver (1998) outlines, wording in the verb tense of the instructions may have been modified such that responses would be more characteristic of dispositional coping rather than situational coping. This represents an error on the author's part in construction of the study and modification of this detail would be beneficial to future studies studying coping in this population in the context of sexuality-based rejection sensitivity.

Finally, sexuality-based rejection sensitivity was significantly related to neuroticism. The facets that were significant under the neuroticism domain were anxiety and self-consciousness. The anxiety facet on NEO-PI-R refers to a general disposition to experience free floating anxiety whereas the self-consciousness facet refers to a general disposition to experience shyness or social-anxiety. This is particularly fitting with the general rejection sensitivity literature as well as sexuality based rejection sensitivity literature given the traits demonstrated within rejection sensitive persons such as anxiety. Further evaluation of the relationship between rejection

sensitivity and personality could look at the various courses of development between these two variables. It may be that the early development of the rejection sensitivity processing dynamic plays a role within the development of associated neuroticism. Alternatively, neuroticism may provide a foundation for the development of a tendency to process and evaluate information in a manner that contributes to the development of rejection sensitivity processing dynamics. Work by Brookings, Zembar, and Hochstetler (2003) argue that rejection sensitivity may be a type of a more focused measure of that global personality trait. The ability to determine and evaluate this relationship is outside of the scope of the present study given the correlational nature of this study and a more appropriate methodology would need to be implemented in order to determine the exact relationship between these two variables. Overall though, one may infer that as sexuality based rejection sensitivity increases there will be a general propensity to experience difficulties with life's demands and stressors. Future studies could examine the methods that gay men high in sexuality based rejection sensitivity and neuroticism utilize to adjust to stressors related to stigma versus general life stress. It may be that high sexuality rejection sensitive people share high trait levels of neuroticism with lower rejection sensitive gay men yet are impacted only by stressors that tap concerns related to stigma of sexuality and not general life stress.

In conclusion, despite the limitations of the present work and methodologies, further light may have been shed on this relatively underrepresented and new area of research. The small findings may act as a guide to further refine and create studies in the future that will better evaluate the current relationships. It was shown in this study that sexuality based rejection sensitivity accounts for a minor portion of variance within overall psychological distress, adaptive coping and personality structure. Given the extremely small correlations it is difficult

to translate these findings to actual behavioral implications for gay males at this time. However, as stated previously these findings may be utilized to further refine the research methods used to evaluate the existing relationships.

Future areas in this research could involve specifically evaluating and improving the psychometric data of the GRSQ, evaluating the current relationships using different measures of the various outcome variables selected in this study, selecting a more narrow focus of research, while simultaneously changing the research methodology (e.g., utilizing in person versus electronic methods, shortening the response burden, and using more objective measures of substance use).

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Table 1

Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Adapting Coping Indices

	1	2	3	4	5	6
1. Rejection Sensitivity Scores	-	-.20*	.03	-.03	-.15	.10
2. Friendship		-	.13	.11	.11	.17
3. Partner			-	.08	.15	.08
4. Family				-	.18*	.11
5. Job					-	.06
6. Education						-

* $p < .05$.

Table 2

Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Overall Pathology Indices

Subscale	1	2	3	4
(1) Rejection Sensitivity Scores	-	.18*	.00	.00
(2) Internalizing Disorders		-	.53**	.66**
(3) Externalizing Disorders			-	.71*
(4) Critical Items				-

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

Table 3

Descriptive Statistics for ASR Adaptive Subscales and Overall Pathology Indices

Sub Scale	N	Mean	SD
Adaptive Friendship	139	50.14	8.98
Adaptive Partner	56	44.70	7.68
Adaptive Family	135	44.13	10.01
Adaptive Employment	127	48.28	8.03
Adaptive Education	49	51.78	9.13
Internalizing Disorders	139	54.14	11.08
Externalizing Disorder	139	53.57	8.62
Critical Items	139	59.39	7.23

Table 4

Pearson's Product Moment Correlations between Rejection Sensitivity Scores and ASRP DSM Oriented Subscales

Subscale	1	2	3	4	5	6	7
1. Rejection Sensitivity Scores	-	.11	.16	.10	.16	.10	-.05
2. Depression		-	.69**	.42**	.66**	.57**	.41**
3. Anxiety			-	.34**	.48**	.46**	.36**
4. Somatic				-	.27**	.31**	.22**
5. Avoidance					-	.32**	.34**
6. Attention						-	.52**
7. Antisocial							-

** $p < .01$.

Table 5

Pearson's Product Moment Correlations between Rejection Sensitivity Scores and ASRP Clinical Syndrome Subscales

	1	2	3	4	5	6	7	8	9.
1. Rejection Sensitivity Scores	-	.14	.09	.09	-.10	.07	.01	-.02	-.14
2. Anxiety		-	.60**	.56**	.46**	.59**	.53**	.43**	.06
3.Withdrawn			-	.41**	.23**	.46**	.38**	.28**	-.08
4. Somatic complaints				-	.43**	.42**	.44**	.28**	.18*
5. Thought problems					-	.42**	.40**	.37**	.18*
6. Attention problems						-	.27**	.65**	.16
7.Aggression							-	.40**	.44**
8. Rule breaking behavior								-	.30**
9. Instrusive thoughts									-

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

Table 6

Descriptive Statistics for DSM and Syndrome Subscales

Subscale	N	Mean	SD
DSM Depression	139	57.12	7.93
DSM Anxiety	139	55.90	6.85
DSM Somatic	139	54.27	7.32
DSM Avoidant Behavior	139	57.48	8.03
DSM Attention	139	54.89	5.78
DSM Antisocial	139	55.99	6.08
Syndrome Anxiety	139	57.80	8.38
Syndrome Withdrawn	139	55.34	6.46
Syndrome Somatic	139	55.37	6.29
Syndrome Thought	139	57.01	8.06
Syndrome Attention	139	54.90	6.14
Syndrome Aggression	139	55.09	5.48
Syndrome Rule Breaking	139	56.41	6.76
Syndrome Intrusive Thoughts	139	54.68	5.69

Table 7

Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Measures of Alcohol Use

Subscale	1	2	3	4	5	6
1. Rejection Sensitivity Scores	-	.03	.00	.04	-.03	-.04
2. Total drinks in past 90 days		-	.21**	.40**	.57**	.57**
3. Amount of Weekday Consumption			-	.32*	.24**	.21*
4. Amount of weekend consumption				-	.56**	.49**
5. Max amount consumed in 24 hour period					-	.61**
6. ASRP alcohol t-scores						-

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

Table 8

Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Illicit Substance Use Frequency

Subscale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Rejection Sensitivity Scores	-	0.19	.06	.03	.10	-.06	-.05	-.12	.08	-.14	.05	-.05	-.04	.04	.03
2. Caffeine		-	.16	.15	.03	.05	.02	.01	.04	.04	.03	.01	.05	.14	.11
3. Nicotine			-	.28**	-.01	-.03	-.08	.13	-.01	.02	-.03	-.03	-.02	.17	.44**
4. Marijuana				-	.02	-.01	.10	.03	.18*	-.03	.00	.06	-.01	.84**	.54**
5. Cocaine					-	.20*	.14	.11	.23**	.28**	.21*	.43**	.30**	.28**	.31**
6. Amphetamines						-	.16	.24**	-.01	.27**	.80**	.76**	.90**	.21*	.16
7.Benzodiazapines							-	.09	.60**	.10	-.01	.02	.03	.24**	.21*
8. Heroin								-	.11	.57**	.26**	.21*	.27**	.10	.11
9. Other opiates									-	.04	.01	.03	.00	.26**	.22*
10. Hallucinogens										-	.13	.36**	.30**	.10	.06
11. GHB											-	.75	.90**	.18*	.11
12. Ecstacy												-	.84**	.30**	.27**
13. Ketamine													-	.20*	.13
14. ASRP drug use t-scores														-	.69**
15. Mean Substance Use															-

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

Table 9

Means and Standard Deviations of Various Alcohol and Illicit Substance Use Measures

Scale	Number	Mean	SD
Total days drinking in last 90 days	140	25.76	25.76
Amount of typical weekday drinking	141	3.00	4.84
Amount of typical weekend drinking	141	5.08	4.61
ASR alcohol t-scores	138	58.36	10.08
Frequency caffeine	140	4.82	1.97
Frequency nicotine	140	1.41	2.29
Frequency marijuana	140	.61	1.33
Frequency cocaine	139	.17	.63
Frequency amphetamines	139	.06	.34
Frequency benzodiazepines	139	.16	.79
Frequency heroin	140	.01	.09
Frequency other opiates	140	.14	.64
Frequency hallucinogens	140	.02	.15
Frequency GHB	140	.06	.31
Frequency ecstasy	139	.09	.38
Frequency ketamine	137	.05	.31
ASR drug t-scores	139	55.14	8.90
ASR mean substance use t-scores	136	56.49	6.17

Note. Frequency scores mean values presented represent Likert scale format ratings ranging from 0-7.

Table 10

Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Brief Cope Subscales

Subscale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Rejection sensitivity scores	-	.12	.04	.17*	.03	-.10	-.09	.16	.11	.02	.02	-.02	-.07	.03	.09
2. Self distraction		-	.22**	.11	.17	.24**	.26**	.15	.39**	.26**	.24**	.21*	.30**	-.06	.24**
3. Active coping			-	.09	.06	.43**	.46**	-.12	.23**	.41**	.66**	.09	.23**	.18*	.05
4. Denial				-	.38**	.08	.06	.32**	.28*	.19*	.12	-.03	.08	.03	.33**
5. Substance use					-	.14	.13	.39**	.23**	.21*	.10	.11	.14	-.17*	.33**
6. Emotional						-	.80**	.00	.38**	.50**	.42**	.24**	.38**	.20*	.04
7.Instrumental							-	.06	.37**	.50**	.49**	.27**	.39**	.20*	.04
8. Behavioral								-	.27**	.08	.08	.09	.14	-.01	.52**
9. Venting									-	.28**	.35**	.39**	.42**	.02	.27**
10. Positive reframe										-	.45**	.35**	.41**	.29**	.02
11. Planning											-	.21	.44**	.16	.14
12. Humor												-	.46**	.07	.12
13. Acceptance													-	.09	.12
14. Religion														-	.01
15. Self blame															-

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

Table 11

Pearson's Product Moment Correlations between Rejection Sensitivity Scores and NEO-PI-R Domain Scores

Subscale	1	2	3	4	5	6
1. Neuroticism	-	-.42**	-.48**	-.10	-.26**	.20*
2. Extroversion		-	.09	.33**	.23**	-.10
3. Conscientiousness			-	-.14	.05	-.05
4. Openness				-	.20*	-.11
5. Agreeableness					-	.01
6. Rejection sensitivity scores						-

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

Table 12

Pearson's Product Moment Correlations between Rejection Sensitivity Scores and Neuroticism Facet Scores

Subscale	1	2	3	4	5	6	7
1. Rejection Sensitivity	-	-.20*	-.13	.15	.28**	.08	.11
2. Anxiety		-	.50**	.70**	.58**	.47**	.65**
3. Hostility			-	.52**	.44**	.45**	.67**
4. Depression				-	.67	.45**	.67**
5. Self consciousness					-	.42**	.58**
6. Impulsiveness						-	.49**
7. Vulnerability to stress							-

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

Appendix A

Demographics

1. Enter your zip code:

2. Enter your age (ages 18-30 permitted to participate)

3. What is your sexuality? ( ) Gay ( ) Bisexual ( ) Straight ( ) Transgender

4. Have you disclosed your sexuality to:

*1st degree relatives are people such as: parents, brothers and sisters
** 2nd degree relatives are people such as: aunts, uncles, grandparents

Family Members (1st degree relatives)	( ) Yes ( ) No
Family Members (2nd degree relatives)	( ) Yes ( ) No
Close Friends	( ) Yes ( ) No
Acquaintances	( ) Yes ( ) No
Work colleagues	( ) Yes ( ) No

5. What is your race: ( ) White / Caucasian ( ) Black / African American
( ) Hispanic / Latino ( ) Asian
( ) Mixed / Multiple ethnicities

Appendix B

QFI (Quantity and Frequency Index)

1. Frequency of alcohol use in last three months:

a. If you have never had an alcoholic beverage (beer, wine or liquor) in your life, check here and go on to I c. ____

b. If you have not had any alcoholic beverage in the LAST THREE MONTHS, check here and go on to I c. ____

c. If you checked I a or I b, please check the reasons for deciding not to drink (check all that apply)

1. ___ Not old enough (it's illegal)
2. ___ Religious or moral disapproval of alcohol use
3. ___ Health Reasons (e.g. illness, pregnancy)
4. ___ Concern that you might have (or develop) an alcohol problem
5. ___Other (specify) _____

d. If you did not check I a, b, or c, please answer the following questions:

2. During the LAST THREE MONTHS (about 90 days) about how many days would you estimate that you drank at least one alcoholic beverage? (Think about weekends, parties, stressful events, celebrations with friends, meals, and so on). Remember to estimate between 1 and 90 days: Days.

a. During the LAST THREE MONTHS (about 90 days), have you experienced a major change on your drinking habits?

1. No, my drinking stayed the same as usual
2. Yes, I quit drinking altogether
3. Yes, I started drinking for the first time
4. Yes, I started drinking much more than I usually do
5. Yes, I started drinking much less than I usually do

3. Quantity of alcohol used in the last three months:

People often drink more than one type of alcoholic beverage on a given day. In addition, their drinking often varies depending on whether it is a weekday or weekend. Therefore, we want you to think of a TYPICAL WEEKDAY on which you drank, and estimate the amounts of each of these three beverages you had to drink.

(Example: "On Thursdays, when I would get together with friends, I would drink about three 12 oz beers and two mixed drinks")

a. Estimated average drinking on a TYPICAL WEEKDAY in the LAST THREE MONTHS:

Now we want you to think of a typical WEEKEND DAY (Friday, Saturday or Sunday) on which you typically drank, and estimate your average drinking on that day.

b. Estimated average drinking on a TYPICAL WEEKEND DAY in the LAST THREE MONTHS:

c. Finally, of all the days in the last three months, what is the LARGEST AMOUNT of alcohol you have had in one 24 hour period?

How often have you used any of these psychoactive substances? For the column labeled "Ever," mark Y for yes and N for No.

For the columns labeled "Last 3 months" and "Past 30 days," code frequency of use according to the following scale:
0 = Never
1 = 1 or 2 times in the last three months
2 = once per month
3 = once every two weeks
4 = once per week
5 = 2 - 4 times per week
6 = almost everyday

SubstanceFrequency of Use

	Ever	Last 3 months	Past 30 days
Caffeine			
Nicotine			
Marijuana/Hashish			
Cocaine/Crack			
Meth/Amphetamines (not prescribed)			
Benzodiazepines			
Heroin			
Other opiates (oxycontin, percocet)			
Hallucinogens			
Inhalants			

Do you feel you currently have a drinking or drug problem? N Y
Have you ever in the past had a problem with or been dependent on any of these substances? N Y
Have you ever attended a self-help group (like Alcoholics Anonymous, or Women for Sobriety, or Narcotics Anonymous) for yourself? N Y
Have you ever had treatment for an alcohol or drug problem? N Y
Do, or did, any of your family members have an alcohol or drug problem? N Y

Appendix C

Brief COPE Measure

There are many ways to deal with stress. These items deal with the ways you've been coping recently. These items ask you to indicate how *you* cope. Each item says something about a particular way of coping. When answering, please think of the MOST STRESSFUL situation you have experienced IN THE LAST YEAR. Please indicate *how frequently* you did what the item says. Don't answer on the basis of whether it seemed to be *working* or not, just whether or not you did it. Try to rate each item separately from the others. Make your answers as true *for you* as you can.

1 = I didn't do this at all
2 = I did this a little bit
3 = I did this a moderate amount
4 = I did this a lot

1. _____ I've been turning to work or other activities to take my mind off things.
2. _____ I've been concentrating my efforts on doing something about the situation I'm in.
3. _____ I've been saying to myself this isn't real.
4. _____ I've been using alcohol or other drugs to make myself feel better.
5. _____ I've been getting emotional support from others.
6. _____ I've been giving up trying to deal with it.
7. _____ I've been taking action to try to make the situation better.
8. _____ I've been refusing to believe that it has happened.
9. _____ I've been saying things to let my unpleasant feelings escape.
10. _____ I've been getting help and advice from other people.
11. _____ I've been using alcohol or other drugs to help me get through it.
12. _____ I've been trying to see it in a different light, to make it seem more positive.
13. _____ I've been criticizing myself.
14. _____ I've been trying to come up with a strategy about what to do.
15. _____ I've been getting comfort and understanding from someone.
16. _____ I've been giving up the attempt to cope.
17. _____ I've been looking for something good in what is happening.
18. _____ I've been making jokes about it.
19. _____ I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. _____ I've been accepting the reality of the fact that it has happened.
21. _____ I've been expressing my negative feelings.
22. _____ I've been trying to find comfort in my religion or spiritual beliefs.
23. _____ I've been trying to get advice or help from other people about what to do.
24. _____ I've been learning to live with it.
25. _____ I've been thinking hard about what steps to take.
26. _____ I've been blaming myself for things that happened.
27. _____ I've been praying or meditating.
28. _____ I've been making fun of the situation.

Appendix D

Gay Rejection Sensitivity Measure

Please read the following descriptions of situations and answer the two questions that follow each one. Imagine each situation as vividly as you can, as if you were actually there:

1. You bring a male partner to a family reunion. Two of your old-fashioned aunts don't come talk to you even though they see you.

How **concerned or anxious** would you be that they don't talk to you because of your sexual orientation? (circle one)

1	**2**	**3**	**4**	**5**	**6**
Very unconcerned					**Very concerned**

How **likely** is it that they didn't talk to you because of your sexual orientation? (circle one)

1	**2**	**3**	**4**	**5**	**6**
Very unlikely					**Very likely**

2. A 3-year old child of a distant relative is crawling on your lap. His mom comes to take him away.

How **concerned or anxious** would you be that the mom took him away because of your sexual orientation? (circle one)

1	**2**	**3**	**4**	**5**	**6**
Very unconcerned					**Very concerned**

How **likely** is it that the mom took him away because of your sexual orientation? (circle one)

1	**2**	**3**	**4**	**5**	**6**
Very unlikely					**Very likely**

3. You've been dating someone for a few years now, and you receive a wedding invitation to a straight friend's wedding. The invite was addressed only to you, not you and a guest.

How **concerned or anxious** would you be that the invite was addressed only to you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that the invite was addressed only to you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

4. You go to a job interview and the interviewer asks if you are married. You say that you and your partner have been together for 5 years. You later find out that you don't get the job.

How **concerned or anxious** would you be that you didn't get the job because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that you didn't get the job because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

5. You are going to have surgery, and the doctor tells you that he would like to give you an HIV test.

How **concerned or anxious** would you be that he gave you an HIV test because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that he gave you an HIV test because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very**

likely

6. You go to donate blood and the person who is supposed to draw your blood turns to her co-worker and says, "Why don't you take this one?"

How **concerned or anxious** would you be that she asked her co-worker to draw your blood because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that asked her co-worker to draw your blood because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

7. You go get an STD check-up, and the man taking your sexual history is rude towards you.

How **concerned or anxious** would you be that he is rude towards you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that he is rude towards you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

8. You bring a guy you are dating to a fancy restaurant of straight patrons, and you are seated away from everyone else in a back corner of the restaurant.

How **concerned or anxious** would you be that you were seated there because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that you were seated there because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

9. Only you and a group of macho men are on a subway train late at night. They look in your direction and laugh.

How **concerned or anxious** would you be that they are laughing at you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that they are laughing at you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

10. You and your partner are on a road trip and decide to check into a hotel in a rural town. The sign out front says there are vacancies. The two of you go inside, and the woman at the front desk says that there are no rooms left.

How **concerned or anxious** would you be that she lied to you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that she lied to you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

11. You go to a party and you and your partner are the only gay people there. No one seems interested in talking to you.

How **concerned or anxious** would you be that no one talks to you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that no one talked to you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

12. You are in a locker room in a straight gym. One guy nearby moves to another area to change clothes.

How **concerned or anxious** would you be that he moved to another area to change because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that he moved to another area to change because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

13. Some straight colleagues are talking about baseball. You force yourself to join the conversation, and they dismiss your input.

How **concerned or anxious** would you be that they dismissed your input because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that they dismissed your input because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**

14.. Your colleagues are celebrating a co-worker's birthday at a restaurant. You are not invited.

How **concerned or anxious** would you be that they did not invite you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unconcerned					**Very concerned**

How **likely** is it that they did not invite you because of your sexual orientation? (circle one)

1	2	3	4	5	6
Very unlikely					**Very likely**