



SCHOOL of  
GRADUATE STUDIES  
EAST TENNESSEE STATE UNIVERSITY

East Tennessee State University  
**Digital Commons @ East  
Tennessee State University**

---

Electronic Theses and Dissertations

Student Works

---

8-2012

# Further Assessment of the Psychometric Properties of the Sex Offender Attitude Scale

Brandon C. Bogle

*East Tennessee State University*

Follow this and additional works at: <https://dc.etsu.edu/etd>



Part of the [Clinical Psychology Commons](#)

---

## Recommended Citation

Bogle, Brandon C., "Further Assessment of the Psychometric Properties of the Sex Offender Attitude Scale" (2012). *Electronic Theses and Dissertations*. Paper 1478. <https://dc.etsu.edu/etd/1478>

This Dissertation - Open Access is brought to you for free and open access by the Student Works at Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact [digilib@etsu.edu](mailto:digilib@etsu.edu).

Further Assessment of the Psychometric Properties  
of the Sex Offender Attitude Scale

---

A dissertation  
presented to  
the faculty of the Department of Psychology  
East Tennessee State University

In partial fulfillment  
of the requirements for the degree  
Doctor of Philosophy in Psychology with a concentration in Clinical Psychology

---

by  
Brandon C. Bogle, M.A.  
August 2012

---

Dr. Christopher Dula, PhD Chair  
Dr. Andrea Clements, PhD  
Dr. Jon Webb, PhD  
Dr. William Dalton, PhD

Keywords: Sex Offender, Recidivism, Attitudes

## ABSTRACT

Further Assessment of the Psychometric Properties of the Sex Offender Attitude Scale

by

Brandon C. Bogle, M.A.

Sex offenses in the United States are a major public health concern. Attitudes toward sex offenders are generally very negative and to be officially identified as a sex offender brings on collateral consequences that reduce incentives not to reoffend. The extent to which attitudes toward sex offenders affect discriminatory behaviors and collateral consequences is not fully understood. The Sex Offender Attitude Scale was developed in an attempt to reliably and accurately measure attitudes and stigma toward sex offenders. Initial analyses indicated the SOAS was a reliable and valid instrument. This study aimed to provide additional evidence of the psychometric properties of the SOAS via statistical analyses, and findings supported this overarching goal. Future research and clinical implications are discussed.

## DEDICATION

To Shantell and Amber, thank you for your untiring love, unwavering support, and uncommon understanding. You have my deepest gratitude for choosing to be fellow travelers on this journey.

## ACKNOWLEDGEMENTS

The author would like to thank the dissertation committee, Chris Dula, Ph.D., Andrea Clements, Ph.D., William Dalton, Ph.D., and Jon Webb, Ph.D. for their collaboration, guidance, and support throughout this project.

# CONTENTS

	Page
ABSTRACT.....	2
DEDICATION.....	3
ACKNOWLEDGMENTS.....	4
LIST OF TABLES.....	7
LIST OF FIGURES.....	8
Chapter	
1. INTRODUCTION.....	9
Purpose.....	9
Sex Offender Etiology and Treatment.....	10
Attitudes About Sex Offenders.....	13
Stigma and Discrimination.....	15
Importance of Measuring Attitudes Toward Sex Offenders.....	17
Psychometric Elements of Quality.....	17
Preliminary Development of the SOAS.....	19
Rationale for Inclusion of Collateral Measures in the Current Study.....	22
Hypotheses.....	24
2. METHOD.....	25
Procedure.....	25
Time 1 Participants.....	25
Time 2 Participants.....	26
Measures.....	27

3. RESULTS.....	31
4. DISCUSSION.....	43
Limitations.....	46
Future Directions.....	47
REFERENCES.....	49
APPENDIXES.....	69
Appendix A: Appendix A: Sex Offender Attitude Scale (SOAS).....	69
Appendix B: Sex Offender Attitude Scale Short (SOAS-S).....	70
Appendix C: Demographics.....	71
Appendix D: NEO – Big 5.....	72
Appendix E: Empathy.....	74
Appendix F: Tolerance.....	75
Appendix G: Forgiveness.....	76
Appendix H: Attitude Scale for Mental Illness.....	77
Appendix I: Cognitive Failures.....	78
Appendix J: Childhood Trauma Questionnaire.....	79
VITA.....	80

LIST OF TABLES

Table	Page
1. Component Matrix for SOAS Factor Analysis Item Factor Loadings.....	34
2. Component Matrix for SOAS-S Factor Analysis Item Factor Loadings.....	34
3. Total Variance Factor Analysis - SOAS.....	35
4. Total Variance Factor Analysis – SOAS-S.....	35
5. Reliability Statistics SOAS & SOAS-S.....	36
6. Coefficients of Stability for Time Group A: 1-14 Days (ns = 224 – 249).....	37
7. Coefficients of Stability for Time Group B: 15-28 Days (ns = 93 – 108).....	38
8. Coefficients of Stability for Time Group C: 29-42 Days (ns = 37- 44).....	38
9. Coefficients of Stability for Time Group D: 43-56 Days (ns = 14 – 17).....	38
10. Correlation Matrix for Convergent Validity Measures at Time 1 & Time 2.....	40
11. Correlation Matrix for Divergent Validity Measures at Time 1 & Time 2.....	40
12. Correlation Matrix for SOAS & Big Five Traits at Time 1 & Time 2.....	41
13. Correlation Matrix for SOAS & SOAS-S – Sex Offense History Questionnaire at Time 2.....	42

## LIST OF FIGURES

Figure	Page
1. Factor Analysis Factor Loading Scree Plot for SOAS.....	32
2. Factor Analysis Factor Loading Scree Plot for SOAS-S.....	33

## CHAPTER 1

### INTRODUCTION

#### *Purpose*

The issue of sex offenses in the United States is a major problem across many domains of impact from psychological to physical (e.g., Smith & Breiding, 2011). Vivolo and colleagues (2010) noted that victims of sexual violence may experience such potential outcomes as chronic pain, sexually-transmitted diseases, PTSD, depression, panic attacks, and a heightened risk for subsequent unsafe sexual behavior and drug abuse. The exact number of sex offenses committed annually is unknown, though it has been reported that 18% of women and 3% of men surveyed were the victim of rape at some point in their lives (Tjaden & Thoennes, 2006). Over 300,000 rapes and sexual assaults were reported in the United States (U.S.) during 2009 and 2010 (Truman, 2011). As of November 2011 there were 747,408 registered sex offenders in the U.S. (National Center for Missing & Exploited Children, 2011). These offenses clearly have long-term negative effects on victims and society as a whole. Additionally, the perpetrators of these offenses experience lasting negative consequences related to their identity as registered sex offenders.

Many may argue that these individuals deserve all of the consequences they experience due to the heinous nature of their crimes. However, the behaviors that constitute a sex offense are wide ranging and are not necessarily always of a heinous nature. Additionally, some offenses are straightforwardly indicative of strictly criminal behavior as legislated on a state-by-state basis, while others are indicative a high probability for meeting criteria for a mental disorder.

## *Sex Offender Etiology and Treatment*

The online Legal Dictionary defines a sex offender as “a person convicted of *crimes* involving sex, including rape, molestation, sexual harassment, and pornography production or distribution” (Hill & Hill, 2012, p. 1). It is easy to see from this definition the behaviors that constitute a sex offense are far reaching and cover a broad continuum. The breadth of variability of sex offending behaviors mirrors the variability in the types of individuals who commit them. Sex offenders come from every facet of society and chances are that most people in the United States know someone who has first hand experience with a sex offense or is a sex offender (Fedoroff & Moran, 1997).

Like the actual incidence of sex offenses, the etiology of sex offenses is also unknown, yet several theories have been put forward, including psychoanalytic (Becker & Murphy, 1998; Marshall, Jones, Ward, Johnston, & Barbaree, 1991), biological, social, and cultural perspectives (Howitt & Sheldon, 2007; Mann, Webster, Wakeling, & Marshall, 2007). There are few solid predictive factors regarding who is likely to become an offender, and some of these are not as solid as many think. It is commonly believed that being a childhood victim of a sexual assault will likely lead to that person becoming a sexual offender (Fedoroff & Moran, 1997). However, though victim status may predict an increase in the likelihood that a person will offend, this relationship has not proven to be definitive nor causal (Becker & Murphy, 1998; Center for Sex Offender Management, 2010). Being male is a strong predictive factor, as males are said to commit at least 90% of all sex offenses; but it has also been asserted that offenses committed by females are substantially underreported and thus, substantially underestimated (West, Friedman, & Kim, 2011).

The extent to which substance abuse is a contributing factor in the commission of sex

offenses has been investigated, but while it is generally accepted that 30% of rapists have used alcohol prior to commission of their offense, substance use is not in itself a catalyst for sex offense (Greenfield, 1998). Research into the role of pornography in the commission of sex offenses is mixed. A few researchers support the notion that it is potentially contributory (Bensimon, 2007; Kingston, Fedoroff, Firestone, Curry, & Bradford, 2008; Kingston, Malamuth, Fedoroff, & Marshall, 2009), while others do not recognize it as a risk factor (Bauserman, 1996; Bergen 2000; Langevin & Curnoe, 2004; Tiefenwerth, 2008; Walp, 2006;). Internet-initiated sexual offenses that may remain ‘virtual’ or lead to in-person encounters are thought to be on the rise, but the literature on this topic is scant (Briggs, Simon, & Simonsen, 2011).

Treatment for sex offenders has historically consisted of psychoanalytic, pharmacologic, and biologic modalities with limited efficacy (Becker & Murphy, 1998; Hanson, 1998). The most common and preferred treatment modality currently is cognitive-behavioral therapy with a relapse-prevention component, which addresses cognitive distortions and helps offenders develop strategies to avoid reoffense (e.g., Marshall, Jones, Ward, & Johnston, 1991; Schaffer, Jeglic, Moster & Wnuk, 2010). Bauman and Kopp (2006) reported a high success rate for a humanistic treatment modality that provides a supportive environment for offenders. Though sex offender treatment has demonstrated some effectiveness in reducing recidivism (Wnuk, Chapman, & Jeglic, 2006), research has also shown a divide among community members regarding attitudes toward such treatment, where some feel it is indeed effective and support its use (Payne, Tewksbury, & Mustaine, 2010) and others believe it to be ineffective and support indefinite incarceration for offenders (Brown, 1999; Washington State Institute for Public Policy, 2004).

Ninety percent of prosecuted sex offenders will receive probation as opposed to prison

sentences and are consequently released into the community (Greenfield, 1997). Of those incarcerated, the average time served is approximately 3.5 years (U.S. Department of Justice, 2003; Minnesota Department of Corrections, 2011). Sex offender registry laws are designed to protect the community and came about as a result of the rape and murder of 7-year-old Megan Kanka in 1994. All convicted sex offenders have to maintain registry for a time ranging from 10 years to life, depending on state laws (Tewksbury, 2006). There is a great deal of support for sex offender registry (Gaines, 2006; Levenson & Cotter, 2005; Schiavone & Jeglic, 2009; Tewksbury, 2006; Zevitz, 2006), although its effectiveness in reducing recidivism is debated. Further, there is no evidence to suggest a relationship exists between sex offender residence restrictions and levels of recidivism, though this literature is quite limited (Meloy, Miller, & Curtis, 2008).

While there is no firm conclusion that mandatory registration or residence restrictions are helpful in preventing recidivism, such programs do have definitive effects on the offenders who are subject to their implementation. The collateral consequences of registry include social stigma (Brown, Spencer, & Deakin, 2007), harassment, employment and residential difficulties, a sense of isolation, and financial and emotional distress (Gideon, 2009; Petersilia, 2003; Shechory & Idisis, 2006; Tewksbury, 2004; Tewksbury & Lees, 2006). Several factors have been identified as integral to reducing offender recidivism and promoting successful societal reintegration, and these include social support (Blitz, 2006), stability (Cesaroni, 2001), health (Graffam, Shinkfield, Lavelle, & McPherson, 2001), planning (Naser & La Vigne, 2006), and employment (Palermo, 2009; Willis & Grace, 2008, 2009).

It is difficult for sex offenders to engage in these positive predictive factors due to the collateral consequences of mandatory sex offender registration and residency restrictions. In a

review of eight empirical studies, sex offenders reliably reported negative consequences, both practical and psychological, to the stigma induced by such programs (Lasher & McGrath, 2010). These authors cited evidence relating such consequences to increased rates of reoffending and warned that these findings should not be ignored.

### *Attitudes About Sex Offenders*

Several factors contribute to the formation and severity of attitudes toward sex offenders including various personality variables (Price-Jones & Barrowcliff, 2010), views regarding women (Craig, 2005), offense type (Tennfjord, 2006), and circumstances of the offense (Engle, McFalls, & Gallagher, 2007; Nelson, Herlihy, & Oescher, 2002), as well as personal empathy, training, and experiences (Sanghara & Wilson, 2006). Characteristic views toward groups or objects or ideas are often considered to be attitudes. An attitude is comprised of mental constructs that influence behavior and interpretations of events that are developed via experiences, consist of both cognitive and affective components, and reside in long-term memory (Anderson, 1983; Fazio, 1986; Higgins, 1986).

Several studies have demonstrated that a variety of misconceptions are commonly held about sex offenders (Butler, 2006; Fedoroff & Moran, 1997; Johnston, Ward, & Hudson, 1997; Levenson, Brannon, Fortney, & Baker, 2007; Payne, Tewksbury, & Mustaine, 2010; Sahlstrom & Jeglic, 2008). Sex offender myth endorsement serves to propagate negative stereotypes and attitudes toward sex offenders. It is commonly believed that sex offenders are sex maniacs who lack self-control and cannot resist temptation to reoffend (Fedoroff & Moran, 1997). Likewise, it is generally thought that sex offenders have higher recidivism rates than other types of offenders. However, a 2004 report indicates that sex offenders had an average recidivism rate of 15% as compared to an average of 43% for all other types of criminal offenders (State of Washington

Sentencing Guidelines Commission, 2004). Nonetheless, Kernsmith, Craun, and Foster (2009) found community members are typically afraid of all types of sex offenders and consequently support registration for offenders. Two other common stereotypes include the notion that sex offenders are a homogenous group and that treatment of sex offenders does not work (Fedoroff & Moran, 1997).

Personal biases of therapists toward sex offenders can potentially negatively impact the therapeutic alliance and thwart clinical gains. A supportive environment (Baumann & Kopp, 2004; Farrenkopf, 2004; Reimer & Mathieu, 2006) as well as an empathic, warm, and nonjudgmental therapist have been shown to increase patient investment in treatment and therapeutic effectiveness (Serran, Fernandez, Marshall, & Mann, 2003). Research on clinicians working with sex offenders shows they too also commonly hold misconceptions and are frequently pessimistic with respect to treatment efforts. Fortney, Baker, and Levenson (2009) found clinicians generally had accurate perceptions about how often strangers victimize children; however, they also tended to overestimate rates of recidivism and offenders' own sexual abuse histories, and underestimate treatment effectiveness. Additionally, correctional officers also tend to endorse stereotypes about sex offenders including seeing sex offenders as dangerous, harmful, violent, bad, unpredictable, unchangeable, aggressive, weak, immoral, and mentally ill (Weekes, Pelletier, & Beaudette, 1995). These two professional groups are charged with promoting sex offender behavior change, but the abilities of many therapists and correctional personnel to successfully support these noble efforts are likely to be somewhat diminished by their stereotypical attitudes and beliefs.

### *Stigma and Discrimination*

Schemas are cognitive structures representing an individual's understanding of a concept and its related attributes (Fiske, 1995). Schemas drive behavioral scripts, direct attention, guide perceptual interpretation of stimuli, and facilitate memory formation and retrieval (Geen, 1998). Schemas have a powerful impact on how individuals process information and the attitudes they hold (e.g., Fiske, 1995; Ross & Nesbitt, 1991), including negative stereotypes that support the social stigmatization of groups and group members. Stigma has been defined as an attribute that discredits one's social identity (Goffman, 1963) or as reflecting a belief that a person possesses a defining characteristic that is devalued in particular social contexts (Crocker, Major, & Steele, 1998). Stigma typically creates negative impacts for those who are its target, including personal distress and reduced access to social, political, or economic power (Link & Phelan, 2005).

Stigma is composed of cognitive (stereotypes), affective (prejudice), and behavioral (discrimination) components and has been observed in both the general populous as well as among those who work in a rehabilitative or care giving capacity (Corrigan, 2007; Devine, 1995; Ross & Nisbett, 1991; Grieve, McLaren, Lindsay, & Culling, 2008; Slade, Molloy, & Keating, 2006). Stigma is categorized by existential and achieved stigma depending on the extent to which the stigmatized individual is believed to have contributed to his or her stigmatized status (Falk, 2001). While aspects of physical appearance stigmatize some groups, sex offenders have no visible qualities to betray their stigmatized status. It has been hypothesized that part of the fear of sex offenders comes as a result of the fact that they do not generally appear different from other members of the general populous (Bonnar-Kidd, 2010).

Various theories have been put forth in an attempt to explain stigma formation, including cognitive appraisal theory, misattribution theory, and the just world hypothesis (e.g., Corrigan,

2007; Major & O'Brien, 2005). The cognitive appraisal approach holds that schema-driven interpretations of an event precipitate an emotional reaction to the event. Misattribution occurs when individuals mistakenly attribute negative behaviors of others to dispositional characteristics and negative outcomes of self to situational characteristics. Likewise, positive outcomes of others are attributed to external factors, while positive outcomes for the self are attributed to dispositional factors of the individual. The just world hypothesis is believed to affect most people and occurs when we feel others generally get what they deserve and, thus stigmatized populations deserve maltreatment and victims are in some part to blame for whatever occurred to them. Affective approaches theorize that prejudice manifests due to a negative emotional response to stigmatized populations, whereas cognitive approaches are based on the idea that humans are predisposed to identify and separate all stimuli into meaningful categories (Corrigan, 2007). Arnold (1960) illustrated the concept of cognitive appraisal theory by exploring the link between how past cognitive appraisals lead to emotional reactions when people are exposed to a stigmatized population.

Expanding on the role of cognition in the formation and maintenance of stigma, social cognition is critical in determining how situations are interpreted, which responses are selected, and how response effects are interpreted (Crick & Dodge, 1994). Feedback from the implementation of the response is often interpreted by default in such a way as to strengthen the dominant schema, which will continue to influence future behavior. This process is implicit as social cognition occurs outside of conscious awareness. Its influence on behavior is carried out in a relatively automatic fashion and biased responses can be activated by even brief exposure to a stigmatized target (Greenwald & Banaji, 1995). These processes are continually reciprocal and serve to continually strengthen stigma-related prejudices. As the process typically lies outside of

conscious awareness, and because people are motivated to maintain pre-existing attitudes via a host of social cognitive processing biases (e.g., Fiske, 1995), stigma is difficult to ameliorate. The collateral consequences of stigma, particularly for sex offenders, contribute to producing an environment that is not conducive to reducing recidivism.

### *Importance of Measuring Attitudes Toward Sex Offenders*

Not all sex offenses or sex offenders are viewed equally; however, it is not known what aspects of sex offenses lead to greater negative attitudes and subsequent increased discriminatory behavior. There are several aspects to every sex offense that vary and the effects these variations have in relation to attitudes and stigma toward sex offenders are not fully understood. Hopefully, future research will bring a better understanding of the unique aspects of sex offenses that are most negative in the eyes of the public and this information may help to inform public policy, therapeutic innovations, and changing public perceptions of offenders. For now, as a starting point, such attitudes should be measured reliably and validly.

The Sex Offender Attitude Scale (SOAS) (Bogle, 2009) was designed to quantify the degree to which negative attitudes are held by people with regard to sex offenders, and initial statistical analyses indicated it was reliable and likely valid. However, with any new instrument, it is necessary to gain further evidence that it demonstrates quality psychometric properties. Therefore, the purpose of this study was to replicate with a new sample previous analyses with regard to reliability and to expand assessment of the validity of the SOAS, with an ultimate goal being to more fully understand people's attitudes toward sex offenders and sex offenses.

### *Psychometric Elements of Quality*

The two most important psychometric properties of a test are reliability and validity. Reliability refers to the stability and internal consistency of a measure (Crocker & Algina, 1986;

McIntire & Miller, 2007; Nunnally & Bernstein, 1994). Test-Retest reliability measures a test's consistency across time, correlating scores from the first and second administrations. However, the memory effect is a concern with test-retest reliability as it can inflate apparent reliability if the administrations are close together in time. Allowing an ample time period to elapse between administrations can mitigate the memory effect.

As schemas are relatively stable cognitive constructs, the attitudes one holds toward sex offenders should also show a high degree of consistency across time. The internal consistency of items is measured by Cronbach's alpha, which gives an indication of how strongly items are related to one another, with greater reliability indicated as the figure approaches 1.0 (Cronbach, 1951). If the SOAS measures a unified construct, the items should logically have a high degree of relation to one another. Another method to assess item consistency is factor analysis, and it can determine whether there is a single construct represented or whether there are subsets of items that have common themes subordinate to the main construct (Crocker & Algina, 1986; McIntire & Miller, 2007). A single factor solution indicates a solitary dominant construct and it supports the notion that the tests are unidimensional, as the items 'hang together' solidly.

Validity refers to the degree to which an instrument measures what it is designed to measure and validity can be assessed in a variety of ways (Crocker & Algina, 1986; McIntire & Miller, 2007). Criterion-related validity demonstrates that a measure has the ability to predict a related behavior, or criterion, which is to say it has practical utility (Crocker & Algina, 1986; McIntire & Miller, 2007). Convergent validity, a subset of criterion-related validity, refers to the degree to which a test is related to another valid instrument that measures a similar construct. It indicates that an instrument should be significantly correlated to another instrument in an expected direction. For instance, a measure of tolerance should be positively correlated with a

measure of forgiveness of others and negatively correlated with a measure of stigma. Conversely, divergent validity assesses the degree to which an instrument is unrelated to measures to which it should not theoretically be related. For instance, the same measure of tolerance discussed above would not be expected to have a meaningful relationship with a measure of self-efficacy. The existence and strength of relationships, or the lack thereof respectively, indicate the specificity of a particular instrument, lending credence and confidence in its validity.

Face validity refers to the extent to which the construct of an instrument is easily identifiable by untrained individuals reading the items. The SOAS has a high level of transparent face validity, as any layperson could reasonably determine the construct by reading the items. The initial development of the SOAS (Bogle, 2009), described in detail below, included a brief assessment of concurrent and divergent validity in examining relationships between SOAS scores and levels of the Big Five personality traits. This study will include a replication of these investigations with the addition of a greater number of measures.

#### *Preliminary Development of the SOAS*

The items making up the original Sex Offender Attitude Scale (SOAS) were created by a research team and were based upon general myths about sex offenders revealed in the literature and listed above (Fedoroff & Moran, 1997; Johnston et al., 1997; Schwartz & Cellini, 1995). Each myth listed by Fedoroff and Moran was used virtually verbatim as a survey item and as the basis for development of additional items, which yielded a total of 27 items (Bogle, 2009; see Appendix A for all SOAS items). Items were presented as statements and response choices were presented on a Likert scale with anchors of 1 = Strongly Disagree and 5 = Strongly Agree. Higher scores indicate greater endorsement of negative attitudes toward sex offenders.

One goal was to assess the strongest pool of items via factor analysis and use the results to hone the measure and reduce its overall length to enhance its real-world value as long tests take longer to administer and score. The item factor-loading criterion cut off was set as .40 on any interpretable factor. Thus, any item loading higher than .40 on a factor that was interpretable was retained. Internal reliability estimates were computed once the final items were selected.

The 27 SOAS items were analyzed using an exploratory Unrotated Principal Components Factor Analysis. An Eigenvalue cut off of 1.0 was employed and seven factors met this criterion. Yet, an examination of the Scree Plot showed only one factor to be clearly interpretable. The first factor had an Eigenvalue of 6.31, accounting for 23.39% of the total variance in the data set. The second factor Eigenvalue was substantially lower at 2.61, and it accounted for 9.71% of the data variance. The third factor had an Eigenvalue of 2.37 (8.80% of the variance) which was virtually the same as Factor 2 (Bogle, 2009).

Moreover, the second and third factors, which did show greater distinction from the remaining four factors, had far fewer items meeting the .40 factor load criterion than the first factor, with seven and five items, respectively. Further, within these latter two factors, items were loaded negatively on three of the seven items in Factor 2 and on one item in Factor 3. As the statements are all scored in the positive direction, these negative loadings made these two factors less interpretable. Additionally, in Factor 2 all but one of the items were represented fully within the first factor, with three of those six loading opposite the first factor, as noted. In Factor 3, though the five items  $\geq .40$  or greater were not represented in the first factor, three had a 'socialization' component, whereas another dealt with 'personality disorder', and the other with an offender having experienced childhood abuse. These latter two items obscured the clarity of the first three, which had little utility on their own. Subsequent factors had only two items with

factor loadings above .40, except for the fifth factor, which had four items, two of which were within the first factor. Thus, interpretation issues with Factors 4 through 7 were similar to those listed for Factors 2 and 3 (Bogle, 2009; see Figure 1 for the Scree Plot of all factors identified).

Thus, the first factor was selected to comprise the SOAS. With a cutoff of .40 for item factor loadings, 17 of the original 27 items (63%) were retained. All items loaded positively on the first factor, confirming they all should be scored in the same direction. Adding all items gave a total score, with higher scores indicating holding greater levels of negative attitudes toward sex offenders. The 17-item, revised SOAS was then subjected to internal consistency analysis where  $\alpha = .88$ , demonstrating excellent reliability (Cronbach, 1951). An Independent Samples t-test was conducted on the full sample also showed there were no differences on 17-item SOAS scores between males (SOAS  $M = 58.84$ ,  $SD = 13.76$ ,  $N = 217$ ) and females ( $M = 59.69$ ,  $SD = 15.20$ ,  $N = 413$ ).

Of those who took the SOAS in the original data set, all were contacted via email and invited to participate again in a second version of the project. For greater clarity of interpretation and to keep within accepted standards of time intervals, a priori cut off dates for completion were set, where the second administration had to have been accomplished between 14 and 56 days (2-8 weeks) after the first administration for inclusion in analyses. However, as no means existed for ensuring participants took the second administration at any given time, cutoff dates were not announced to them. Ninety of the 684 (13.15%) original participants took the measure again. Of the 90 participants who completed the second administration, 58 (64.44% of second administration participants, and 8.47% of original sample) did so within the cut off range of 2-8 weeks, where the mean age was 22.88 years ( $SD = 7.50$  years, Range = 18-55), 39 were females (67.2%), and 19 were males (32.8%), where mean age and proportions of males and females

were similar to those of the full sample. The mean number of days between Time 1 and Time 2 administrations was 30.55 days ( $SD = 11.70$  days, Range = 15-56 days) (Bogle, 2009).

Within the Time 2 sample, the SOAS yielded an alpha coefficient = .89, again confirming high levels of internal consistency. Smaller groups were made for those completing the Time 2 administration with subsets between 2 and 4 weeks (14 to 28 days), 3 and 4 weeks (29 to 42 days), and 6 and 8 weeks (43 to 56 days). While  $n$ s decreased substantially from one group to the next, interestingly, coefficients of stability became stronger with each increase in group administration range. Specifically, for the 14 to 28 day group,  $r = .63$  ( $p < .001$ ,  $n = 30$ ); for the 29 to 42 day group,  $r = .73$  ( $p < .001$ ,  $n = 18$ ); and, for the 43 to 56 day group,  $r = .86$  ( $p < .001$ ,  $n = 10$ ). Whether a product of distance from the first administration (e.g., being less aware of how one answered items at Time 1 and thus more consistent with one's true attitude) or some quality of those who took the second administration at various times is not known. Still, it seems test-retest correlation coefficients across varying time intervals were at levels sufficient to conclude stigma toward sex offenders is a stable construct and that the SOAS is a good indicator of attitude stability across time, possibly better across longer periods (Bogle, 2009).

Thus, initial analyses established the SOAS as a highly reliable instrument, likely with satisfactory validity given its strong face validity and concurrent validity via correlational analyses with a number of constructs. The current study provided complementary assessments of psychometric properties via replication of the original work and an extension to inclusion of new elements as a means to examine other evidence of validity.

#### *Rationale for Inclusion of Collateral Measures in the Present Study*

While specific information on each of the measures listed in this section is given below in the Methods section, a general reasoning is provided in this section for their inclusion in the

current study. Because the SOAS is measuring negative attitudes towards sex offenders, it is reasonable to believe that it would be negatively correlated with measures that engender compassion for others, such as the traits of empathy, forgiveness, and tolerance. The literature shows forgiveness and tolerance have been directly related to attitudes in mental health workers toward their clients (Knstam et al., 1999), willingness to accept apologies (Exline, Deshea, & Holeman, 2007), and predicting behaviors (Pozzebon & Ashton, 2009). Empathy has been demonstrated to be directly related to attitudes toward sex offenders (Serran, Fernandez, Marshall, & Mann, 2003). Therefore, these measures have been chosen to provide convergent validity as evidenced by a negative correlation with the SOAS. It is also reasonable to hypothesize that the SOAS should be positively correlated with another measure of stigma, such as the Attitude Scale for Mental Illness.

The current study used the same measures of the Big Five personality trait constructs that were found at [www.ipip.ori.org](http://www.ipip.ori.org) (Costa & McCrae, 1992; Robie, Brown, and Bly, 2005; Viswesvaran & Ones, 2000) and used in the original study (Bogle, 2009) and should replicate previous findings. Divergent validity will be evidenced by low magnitude or statistically nonsignificant correlations with measures of all Big Five traits except for Agreeableness and Openness to Experience, as there is no literature to suggest that these other constructs should be related to negative attitudes toward sex offenders. While there is no literature to suggest that Openness should be negatively related to SOAS scores, logically those who are more open-minded may have more liberal attitudes towards many things, and the original study showed such a correlation (Bogle, 2009). To examine divergent validity, other measures were sought that should theoretically not be related to the SOAS. Because measuring attitudes toward sex offenders is a relatively new field of study, there is a sparse literature base, which would indicate

divergent measures. It seems reasonable to assume that instruments measuring cognitive difficulties and general childhood trauma should not be related directly to attitudes toward sex offenders. A review of the literature yielded no publications investigating this relationship. Although exploratory in nature it seems reasonable to assume that these constructs should not be related and the current study will examine this relationship.

### *Hypotheses*

*Hypothesis 1:* It was hypothesized that confirmatory factor analysis results would identify a single interpretable factor on the SOAS, where each of the 17 items would demonstrate loadings of .40 or greater on the first factor. A secondary goal was to reduce the number of items within the measure by increasing factor loadings to .60 or greater in an effort to streamline the instrument for clinical and research practices.

*Hypothesis 2:* It was hypothesized that the SOAS would show excellent internal consistency as evidenced by a Cronbach's  $\alpha \geq .80$ .

*Hypothesis 3:* It was hypothesized that SOAS would demonstrate substantial stability in scores across time and thus would demonstrate a strong positive correlation ( $r \geq .70$ ) between two different administrations within a single sample.

*Hypothesis 4:* It was hypothesized that the SOAS would evidence convergent (by exhibiting moderate magnitude and statistically significant negative correlations with measures of empathy, forgiveness, tolerance, and openness, and a statistically significant positive correlation with stigma towards people with mental illness) and divergent validity (by exhibiting low magnitude or nonsignificant correlations with measures of agreeableness, conscientiousness, extraversion, neuroticism, childhood trauma, and cognitive failures).

## CHAPTER 2

### METHOD

#### *Procedure*

This study was approved by the East Tennessee State University Institutional Review Board prior to data collection. Voluntary participants were recruited via an online participant and survey study management system, Sona Systems (<http://www.sona-systems.com/>). Participant identification was kept confidential and Sona Systems assigned each participant a participant code. All surveys were presented in random order. Those who completed the first set of surveys (Part 1) were sent an invitation to complete the study a second time (Part 2) to obtain test-retest data. Invitation emails were sent out every 2 weeks to Part 1 participants with an invitation code to allow participation in Part 2. The time gap between administrations was calculated after data collection, and participants were grouped accordingly.

#### *Time 1 Participants*

Participants consisted of 886 undergraduates from a moderately-sized university in the Southeastern United States. Five hundred ninety-two (66.8%) identified as female, while 294 (33.2%) identified as male. The vast majority, 738 (83.3%), identified as Caucasian or White, while the remaining identified as: 71 (8.0%) African-American or Black; 15 (1.7%) Hispanic; 20 (2.3%) Biracial or Multiracial; 2 (0.08%) Middle Eastern; 3 (0.03%) Native American Indian; 3 (0.03%) African; 4 (0.05%) European; 23 (2.6%) Other; and 1 did not report.

Relationship status was reported as: 425 (48.0%) Single; 357 (40.3%) Monogamously dating; 70 (7.9%) Married; 8 (0.9%) Married but separated; 15 (0.17%) Divorced; 2 (0.02%) Widowed; and 5 did not report. Participants reported annual income as follows: 612 (69.1%) ≤ \$20,000; 81 (9.1%) \$20,000-\$40,000; 50 (5.7%) \$40,000-\$60,000; 32 (3.6%) \$60,000-\$80,000;

19 (2.1%) \$80,000-\$100,000; 19 (2.1%) \$100,000 or more; and 66 (7.4%) did not report. Also, participants were asked questions regarding personal experience with sex offenses or offenders. To the question, “Do you know someone who is a sex offender?” participants responded as follows: Yes = 263 (30.4%); No = 619 (71.5%); and 2 did not report. To the question, “Have you ever been the victim of a sexual offense?” participants responded as follows: Yes = 121 (13.7%); No = 758 (85.6%); and 5 did not report. To the question, “Have you ever committed a sex offense?” participants responded as follows: Yes = 4 (0.005%); and, No = 882 (99.6%). To the question, “Do you know a victim of a sex offense?” participants responded as follows: Yes = 351 (40.5%); No = 533 (61.5%); and 2 did not respond.

### *Time 2 Participants*

There were 445 participants (50.2% of the Time 1 sample) in the Time 2 phase of the project, where 331 (74.4%) identified as female and 114 (25.6%) identified as male. Again, the vast majority of participants, 378 (84.9%), identified as Caucasian or White, while 31 (7.0%) identified as African-American/Black. In terms of relationship status, 195 (43.8%) were single, 190 (42.7%) were monogamously dating, and 45 (10.1%) were married. Three hundred (67.4%) reported an annual income under \$20,000, while 43 (9.7%) fell between that figure and \$40,000. One hundred forty-one (31.7%) reported knowing a sex offender, 74 (16.6%) reported having been the victim of a sex offense, 1 (0.2%) reported having committed a sex offense, and 268 (60.2%) reported knowing someone who was the victim of a sex offense. The percent of participants at Time 2 who reported being the victim of a sex offense was 21.2% higher than at Time 1. The percent of participants at Time 2 who reported knowing the victim of a sex offense was 48.6% higher than at Time 1. These increases indicate that there may have been some

systematic self-selection biases that influenced some participants to take the study again at Time 2.

### *Measures*

**Sex Offender Attitude Scale (SOAS).** The Sex Offender Attitude Scale is a 17-item instrument designed to measure attitudes toward sex offenders. Initial results indicated a Cronbach's alpha coefficient of .88. Participants will choose a response from a set of options presented on a 5-point Likert scale with responses ranging from 1- Strongly Disagree to 5- Strongly Agree (see Appendix A).

**Demographic questionnaire.** Each participant completed a short demographic survey with questions about sex, race, socioeconomic status, and a 4-item section that assessed exposure and history with sex offenders and sex offenses (see Appendix B).

**Big Five Personality Traits.** These traits are well-established across time and cultures and are robust across different instruments (e.g., Costa & McCrae, 1992; Robie, Brown, & Bly, 2005; Viswesvaran & Ones, 2000). The measure used was obtained from the International Personality Item Pool (IPIP, 2011, [www.ipip.ori.org](http://www.ipip.ori.org)), which is a public-domain site that hosts over 2,000 items measuring common constructs in the field of psychology. The IPIP scales have demonstrated psychometric properties in several studies with coefficient alphas for the measures ranging from .79 to .93 (Goldberg et al., 2006). The measure has 60 items total with each trait being measured by 12 items. This measure has been commonly used in several studies and is considered to be a valid measure of the personality traits in question (Adams, White, Bogle, & Dula, 2008; Bogle et al., 2005; Burns et al., 2006; Collier, Bogle, & Dula, 2007; Fletcher & Nusbaum, 2008; Gilmer, Chumney, & Dula, 2007; Gow, Whiteman, Pattie, & Deary, 2005; Martin et al., 2008; Waiyavutti, Johnson, & Deary, 2011; Witt, Donnellan, & Blonigen, 2009).

IPIP Big Five items were scored using a 5-point Likert scale ranging from 1- Strongly Disagree to 5- Strongly Agree (see Appendix C). Big Five traits have been used for a wide variety of purposes including predicting the presence of personality disorders (Ball, Tennen, Poling, Kranzler, & Rounsaville, 1997), self-representations and subsequent behavior (Hurley, 1998), and music preferences (Zweigenhaft, 2008). Each personality measure was used to establish either convergent or divergent validity of the SOAS given the expected relationship, or lack thereof, to each personality construct.

Empathy. Empathy is a construct that encapsulates the ability to understand, be aware of, sensitive to, and vicariously experience the feelings, thoughts, and experience of another, in this case, sex offenders (Merriam-Webster, 2012). This instrument was chosen to establish convergent validity because it was expected that participants who are empathic of sex offenders would have less negative attitudes toward them as indicated by a negative correlation. The 8-item measure of empathy used was from IPIP (2011) and it was based on constructs similar to those in Cloninger's Temperament and Character Inventory (TCI) which has a reported Cronbach's alpha of .79 (Cloninger, Svrakic, & Przybeck, 1993). Participants chose a response from a 5-point Likert scale with responses from 1- Strongly Agree to 5- Strongly Disagree (see Appendix D).

Tolerance. Tolerance is comprised of sympathy or indulgence for beliefs or practices differing from or conflicting with one's own (Merriam-Webster, 2012). This instrument was chosen to establish convergent validity because it was expected that participants who are tolerant of sex offenders would have less negative attitudes toward them as evidenced by a negative correlation. The 12-item measure of tolerance was also from IPIP (2011) and also based on the TCI, with a reported Cronbach's alpha coefficient of .72 (Cloninger, Svrakic, & Przybeck, 1993;

www.ipip.ori.org). Items had 5-point Likert scale responses ranging from 1- Strongly Disagree to 5- Strongly Agree (see Appendix E).

Forgiveness. Forgiveness can be defined many ways and there are several types of forgiveness (self, others, God, etc). For this study a measure of Forgiveness of others was chosen to establish convergent validity because it was expected that participants who are forgiving of sex offenders would have less negative attitudes toward them as indicated by a negative correlation. The 10-item measure of forgiveness also came from IPIP (2011) and was based on the HEXACO Personality Inventory, with reported Cronbach's alpha coefficient ranges from .65 to .91 (Lee & Ashton, 2006). It had a 5-point Likert scale ranging from 1- Strongly Disagree to 5- Strongly Agree (see Appendix F).

Attitude Scale for Mental Illness. The Attitude Scale for Mental Illness is a 34-item instrument designed to measure stigma toward individuals with mental illness. It is a modified version of Ng and Chan's (2000) Opinions about Mental Illness in the Chinese Community (OMICC), and it has a reported Cronbach's alpha coefficient of .86. It has a 5-point Likert scale with responses ranging from 1- Strongly Disagree to 5- Strongly Agree, where higher scores indicate one endorses more negative views of mentally ill individuals (see Appendix G).

Cognitive Failures. The 10-item cognitive failures measure was created by Broadbent and associates (1982) and is designed to measure how often a participant makes routine mistakes in domains such as perception, memory, and motor function over a 6-month period. Cronbach's alpha coefficient of .79 has been reported. Participants will choose a response option presented on a 5-point Likert scale with responses ranging from 1- Strongly Disagree to 5- Strongly Agree (see Appendix H).

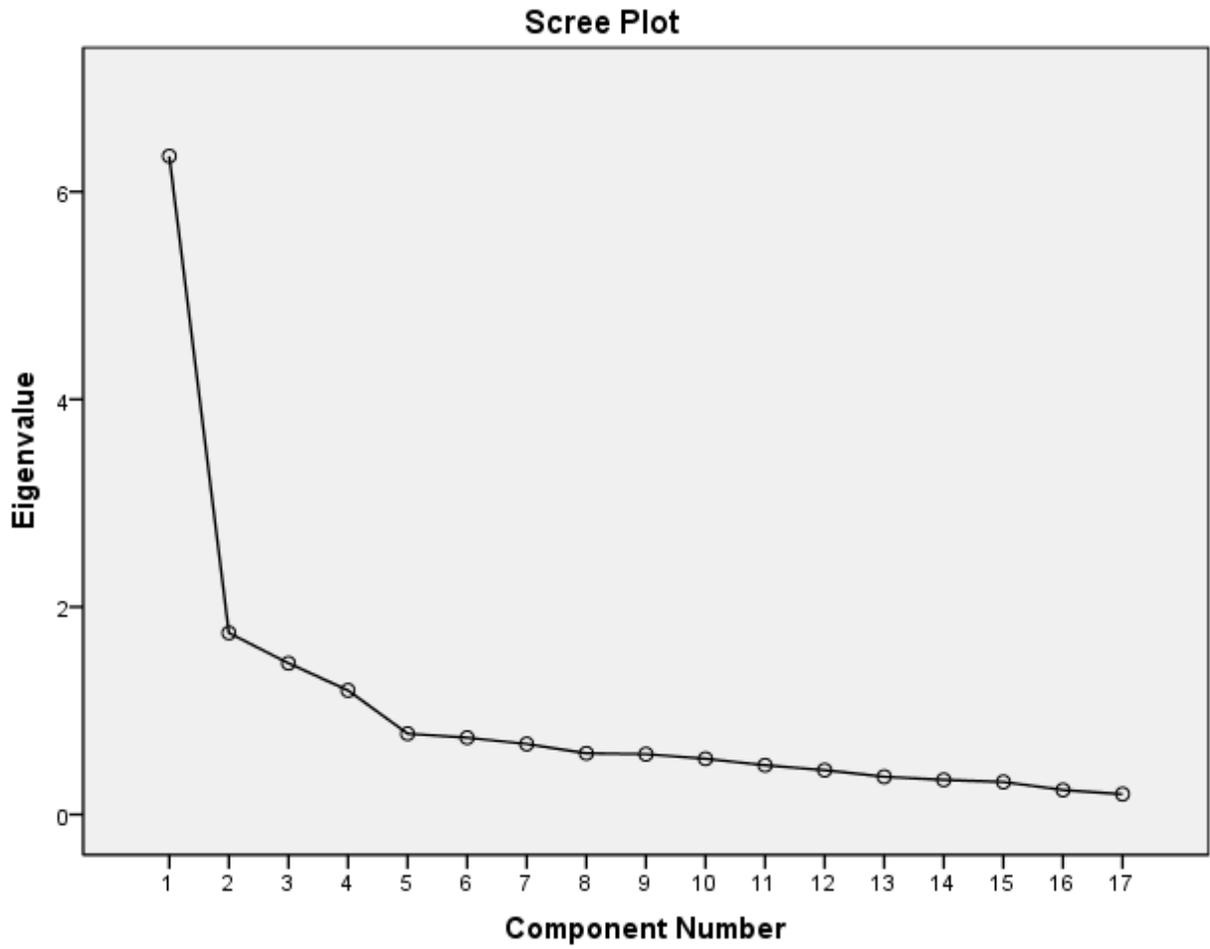
Childhood Trauma Questionnaire. The Childhood Trauma Questionnaire is a 28-item self-report inventory that provides brief, reliable, and valid screening for histories of abuse and neglect. It was developed by Bernstein, Fink, Handelsman, and Foote (1994) and inquires about five types of maltreatment: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. It is scored on a 5 point Likert scale and has reported Cronbach's alphas ranging from .80-.97 (see Appendix I).

## CHAPTER 3

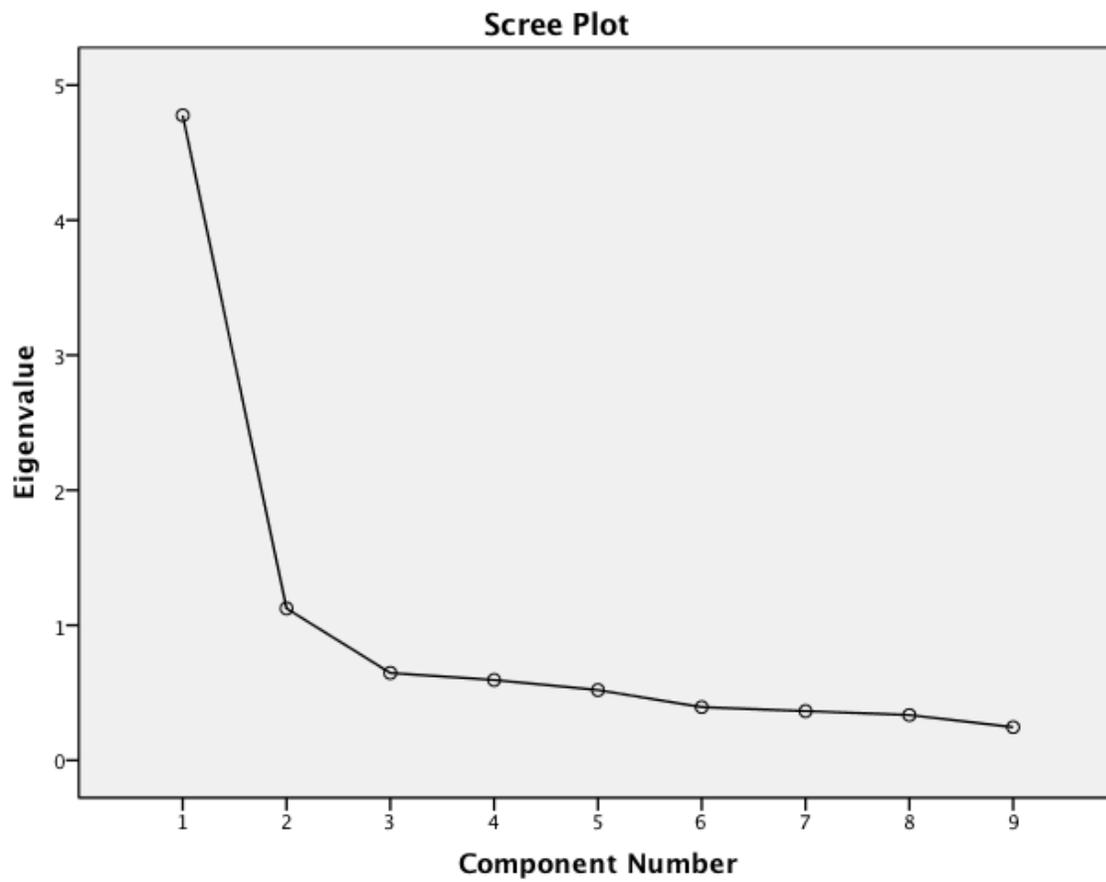
### RESULTS

*Hypothesis 1:* It was predicted that a single interpretable construct would be identified via a principal components analysis with factor criteria established at Eigenvalues of 1.0 as a cutoff and that all 17 items will load onto this factor with factor loadings of .4 or greater. Such a stated prediction fulfills accepted criteria for being considered a confirmatory factor analytic procedure (McIntire & Miller, 2007). This hypothesis was solidly supported and replicated results found in the original SOAS study (Bogle, 2009). Indeed, a single interpretable factor did emerge using an Unrotated Principle Components procedure, with an Eigenvalue of 6.06. Sixteen of the 17 items loaded at .40 or higher with only one item, with a factor loading of .35, just missing the cutoff for factor inclusion. While four factors had Eigenvalues in excess of 1.0 (Factor 1: Eigenvalue = 6.06, 16 items with factor loadings  $\geq$  .40; Factor 2: Eigenvalue = 1.88, 6 items with factor loadings  $\geq$  .40; Factor 3 = 1.39, 2 items with factor loadings  $\geq$  .40; and Factor 4 = 1.22, 2 items with factor loadings  $\geq$  .40), all but one of the items were captured within the first factor, which was thus the only factor with interpretable utility.

In an attempt to make the SOAS more practical for everyday use in clinical settings and to provide greater construct clarity for use in research settings, a shortened version was created by using only the items with factor loadings  $\geq$  .60 on Factor 1. This shortened version (SOAS-S) was comprised of nine items. This group of items was also subjected to an Unrotated Principle Components procedure, where the results were very similar to those found in the procedure noted above (See Figures 1 and 2, and Tables 1, 2, 3, and 4).



*Figure 1.* Factor Analysis Factor Loading Scree Plot for SOAS



*Figure 2.* Factor Analysis Factor Loading Scree Plot for SOAS-S

Table 1

Component Matrix for SOAS Factor Analysis Item Factor Loadings

Item	Component			
	1	2	3	4
soas_1	.42	.07	.20	.72
soas_2	.44	-.03	.14	.72
soas_3	.53	.23	-.68	.10
soas_4	.63	.21	-.62	.12
soas_5	.55	.23	-.28	-.05
soas_6	.59	-.16	-.15	-.18
soas_7	.70	-.46	.14	-.02
soas_8	.62	-.53	.15	-.10
soas_9	.72	-.30	.10	-.06
soas_10	.68	-.30	.05	-.11
soas_11	.74	.05	-.03	-.06
soas_12	.66	.39	.11	-.20
soas_13	.43	.51	.37	-.06
soas_14	.57	.48	.27	-.15
soas_15	.35	.46	.33	-.07
soas_16	.68	.13	.05	-.11
soas_17	.66	-.40	.05	-.05

Extraction Method: Principal Component Analysis.

Table 2

Component Matrix for SOAS-S Factor Analysis Item Factor Loadings

Item	Component	
	1	2
soas_9	.82	-.08
soas_11	.78	.31
soas_10	.78	-.045
soas_7	.77	-.37
soas_17	.76	-.32
soas_8	.70	-.523
soas_16	.68	.25
soas_12	.64	.49
soas_4	.60	.45

Extraction Method: Principal Component Analysis.

Table 3  
*Total Variance Factor Analysis - SOAS*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.34	37.31	37.31	6.34	37.31	37.31
2	1.75	10.29	47.60	1.75	10.29	47.60
3	1.46	8.58	56.18	1.46	8.58	56.18
4	1.20	7.04	63.21	1.20	7.04	63.21
5	.78	4.58	67.79			
6	.74	4.35	72.15			
7	.68	4.00	76.15			
8	.59	3.47	79.62			
9	.58	3.42	83.04			
10	.54	3.16	86.19			
11	.48	2.79	88.99			
12	.43	2.52	91.50			
13	.36	2.14	93.64			
14	.33	1.96	95.61			
15	.31	1.85	97.45			
16	.24	1.39	98.85			
17	.20	1.16	100.00			

Extraction Method: Principal Component Analysis.

Table 4  
*Total Variance Factor Analysis – SOAS-S*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.78	53.07	53.07	4.78	53.07	53.07
2	1.13	12.49	65.57	1.13	12.49	65.57
3	.65	7.19	72.75			
4	.60	6.61	79.36			
5	.52	5.78	85.14			
6	.39	4.37	89.51			
7	.36	4.05	93.56			
8	.34	3.72	97.28			
9	.25	2.72	100.00			

Extraction Method: Principal Component Analysis.

*Hypothesis 2:* It was predicted that the SOAS items would have a Cronbach’s alpha coefficient of .8 or greater. This hypothesis was supported, as the alpha was .88. Additionally, analyses also indicate that removal of any of the items would actually lower the reliability, rather than increase it (See Table 5).

Table 5.  
*Reliability Statistics SOAS & SOAS-S*

	Cronbach’s Alpha	Number of Items
SOAS	$\alpha = .882$	N = 17
SOAS-S	$\alpha = .871$	N = 9

The SOAS-S had an  $\alpha = .87$ , indicating equivalent reliability in the two versions of the measure, with both demonstrating excellent levels of internal consistency by generally accepted standards (e.g., Cronbach, 1951; McIntire & Miller, 2007). Moreover, the alpha coefficients were substantially higher at Time 2, with  $\alpha = .96$  for the SOAS and  $\alpha = .95$  for the SOAS-S. Additionally, the two measures demonstrated an extremely high correlation, with  $r = .95$  with  $p < .001$  at Time 1, and  $r = .96$  with  $p < .001$  at Time 2. Additionally, the Cronbach’s alpha coefficients for the current sample were Agreeableness (.69), Openness (.66), Extraversion (.66), Neuroticism (.88), and Conscientiousness (.89) respectively.

*Hypothesis 3:* It was predicted that the SOAS would show stability across various time spans as evidenced by a statistically significant correlation  $\geq .70$  between two administrations within a single sample. This hypothesis was supported. The SOAS was administered to a sample of participants at two administrations with delay times ranging from 0 to 73 days. While 445 participated in the second administration of the survey, this number was reduced to 311 (69.9%) after participants were removed who did not have a time delay of at least 15 minutes between administrations. Though surveys were presented in random order, it is sensible to presume that the sheer number of items (where the SOAS accounted for 17 of 206, or 8.3% of the total)

encountered in the two administrations, along with a brief time delay between studies, likely precluded anyone from being able to remember verbatim any items at Time 2 they may have encountered at Time 1.

Participants were categorized into four groups according to the amount of time that elapsed between the first and second administrations of the survey (Group 1: 0-14 days, N = 180; Group 2: 15-28 days, N = 90; Group 3: 29-42 days, N = 29; Group 4: 43-56 days, N = 12). A Pearson product-moment correlation procedure was conducted between the first administration and each follow up administration group. Results indicated both the SOAS and the SOAS-S were stable instruments across varying administration times within a single sample. In comparison to the well-established Big Five traits, the SOAS showed similar stability coefficients within each administration time gap group.

Within the 0-14 day administration time gap group (N = 180), relevant results were as follows: SOAS ( $r = .79, p < .001$ ), SOAS-S ( $r = .78, p < .001$ ), Agreeableness ( $r = .81, p < .001$ ), Conscientiousness ( $r = .89, p < .001$ ), Extraversion ( $r = .82, p < .001$ ), Neuroticism ( $r = .88, p < .001$ ), and Openness ( $r = .85, p < .001$ ). See Table 6.

Table 6  
*Coefficients of Stability for Time Group A: 1-14 Days (ns = 224 – 249)*

SOAS	SOAS-S	Open.	Cons.	Extra.	Agree.	Neuro.
.80***	.78***	.82***	.87***	.84***	.80***	.87***

Note: Open = IPIP Openness, Cons = IPIP Conscientiousness, Extra = IPIP Extraversion, Neuro = IPIP Neuroticism; \*\*\* =  $p \leq .001$  (2-tailed).

Within the 15-28 day administration time gap group (N = 90) relevant results were as follows: SOAS ( $r = .70, p < .001$ ), SOAS-S ( $r = .71, p < .001$ ), Agreeableness ( $r = .85, p < .001$ ), Conscientiousness ( $r = .79, p < .001$ ), Extraversion ( $r = .79, p < .001$ ), Neuroticism ( $r = .85, p < .001$ ), and Openness ( $r = .73, p < .001$ ). See Table 7.

Table 7

*Coefficients of Stability for Time Group B: 15-28 Days (ns = 93 – 108)*

SOAS	SOAS-S	Open.	Cons.	Extra.	Agree.	Neuro.
.84**	.71**	.68**	.74**	.80**	.76**	.84**

Note: Open = IPIP Openness, Cons = IPIP Conscientiousness, Extra = IPIP Extraversion, Neuro = IPIP Neuroticism; \*\* =  $p \leq .01$  (2-tailed).

Within the 29-42 day administration time gap group (N = 29) relevant results were as follows: SOAS ( $r = .66, p < .001$ ), SOAS-S ( $r = .85, p < .001$ ), Agreeableness ( $r = .74, p < .001$ ), Conscientiousness ( $r = .73, p < .001$ ), Extraversion ( $r = .84, p < .001$ ), Neuroticism ( $r = .78, p < .001$ ), and Openness ( $r = .92, p < .001$ ). See Table 8.

Table 8

*Coefficients of Stability for Time Group C: 29-42 Days (ns = 37 – 44)*

SOAS	SOAS-S	Open.	Cons.	Extra.	Agree.	Neuro.
.83**	.85**	.93**	.84**	.74**	.84**	.83**

Note: Open = IPIP Openness, Cons = IPIP Conscientiousness, Extra = IPIP Extraversion, Neuro = IPIP Neuroticism; \*\* =  $p \leq .01$  (2-tailed).

Within the 43-56 day administration time gap group (N = 12) relevant results were as follows: SOAS ( $r = .92, p < .001$ ), SOAS-S ( $r = .86, p < .001$ ), Agreeableness ( $r = .76, p = .005$ ), Conscientiousness ( $r = .83, p < .001$ ), Extraversion ( $r = .80, p < .001$ ), Neuroticism ( $r = .85, p < .001$ ), and Openness ( $r = .94, p < .001$ ). See Table 9.

Table 9

*Coefficients of Stability for Time Group D: 43-56 Days (ns = 14 – 17)*

SOAS	SOAS-S	Open.	Cons.	Extra.	Agree.	Neuro.
.94**	.86**	.83**	.86**	.87**	.65**	.81**

Note: Open = IPIP Openness, Cons = IPIP Conscientiousness, Extra = IPIP Extraversion, Neuro = IPIP Neuroticism; \*\* =  $p \leq .01$  (2-tailed).

*Hypothesis 4:* It was hypothesized that the SOAS would demonstrate convergent and divergent validity, as indicated by statistically significant, medium-strength correlations with measures with which it should be related (i.e., empathy, forgiveness, tolerance, openness, and

stigma towards people with mental illness) and, conversely, by the lack of statistically significant or of weak magnitude if significant correlations with measures with which it should not be related (i.e., agreeableness, conscientiousness, extraversion, neuroticism, childhood trauma, and cognitive failures). This hypothesis was moderately well supported. Pearson product-moment correlation analyses were performed to determine the existence and strength of relationships among the SOAS and personality, stigma, trauma, and cognitive functioning constructs.

Interestingly, the predicted relationships were typically stronger for the SOAS-S than for the SOAS, which supports the notion that the SOAS-S is a more pure measure of the construct. Also, variations in correlation magnitudes existed depending on whether one looked at Time 1 or Time 2 administrations, so results from both Time 1 and Time 2 are provided below. As time delay between survey administrations was not of importance for the current set of analyses, the full Time 2 sample ( $n = 445$ ) was employed to maximize statistical power.

Convergent validity was established as results indicate statistically significant, though relatively weaker than predicted, negative correlations between the SOAS and SOAS-S and: Agreeableness ( $r = -.10, p < .001$  and,  $r = -.16, p < .01$ , respectively at Time 1; where  $r = -.10, p < .001$  and,  $r = -.22, p < .001$ , respectively at Time 2 ); Openness ( $r = -.25, p < .001$  and,  $r = -.35, p < .001$ , respectively at Time 1; where  $r = -.23, p < .001$  and,  $r = -.34, p < .001$ , respectively at Time 2); Tolerance ( $r = -.23, p < .001$  and,  $r = -.26, p < .001$ , at Time 1 respectively; where  $r = -.20, p < .001$  and,  $r = -.27, p < .001$ , respectively at Time 2 ), Forgiveness ( $r = -.11, p < .05$  and,  $r = -.15, p < .01$ , at Time 1 respectively; where  $r = -.15, p < .001$  and,  $r = -.26, p < .001$ , respectively at Time 2 ); and Empathy ( $r = -.01, p = ns$  and,  $r = .04, p = ns$ , at Time 1 respectively; where  $r = -.16, p < .001$  and,  $r = -.11, p < .001$ , respectively at Time 2). Additionally, a significant and strong positive correlation was found between the SOAS

and SOAS-S and the Attitude Scale for Mental Illness ( $r = .57, p < .001$  and,  $r = .56, p < .001$ , respectively at Time 1; where  $r = .66, p < .001$  and,  $r = .63, p < .001$ , respectively at Time 2).

Divergent validity was established by the weak or absence of statistically significant relationships between the SOAS and SOAS-S and: Extraversion ( $r = .18, p < .001$  and,  $r = .11, p < .05$ , respectively at Time 1; where  $r = .08, p = ns$  and,  $r = .01, p = ns$ , respectively at Time 2); Neuroticism ( $r = .02, p = ns$  and,  $r = .02, p = ns$ , respectively at Time 1; where  $r = -.09, p = ns$  and,  $r = -.06, p = ns$ , respectively); the Childhood Trauma Questionnaire ( $r = -.08, p = ns$  and,  $r = -.11, p < .05$ , respectively at Time 1; where  $r = -.01, p = ns$  and,  $r = -.06, p = ns$ , respectively at Time 2); and Cognitive Failures ( $r = .09, p = ns$  and,  $r = .11, p < .05$ , respectively at Time 1; where  $r = .15, p < .05$  and,  $r = .12, p < .05$ , respectively at Time 2). See Tables 10-12.

Table 10  
*Correlation Matrix for Convergent Validity Measures at Time 1 & Time 2*

	SOAS	Forgiveness	Tolerance	Empathy	Attitude Scale for Mental Illness
SOAS Time 1	---	-.11*	-.23***	-.01	.57***
SOAS-S Time 1	.95***	-.15**	-.26***	.04	.56***
SOAS Time 2	---	-.15***	-.20***	.16***	.66***
SOAS-S Time 2	.96***	-.26***	-.27***	.11*	.63***

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$  (all 2-tailed).

Table 11  
*Correlation Matrix for Divergent Validity Measures at Time 1 & Time 2*

	Childhood Trauma Questionnaire	Cognitive Failures
SOAS Time 1	-.08	.09
SOAS-S Time 1	-.11*	.11*
SOAS Time 2	-.01	.15*
SOAS-S Time 2	-.06	.12*

Note: \*\*\* =  $p \leq .001$  (2-tailed).

Table 12

*Correlation Matrix for SOAS and Big Five Traits at Time 1 & Time 2*

	Openness <sup>C</sup>	Conscientiousness <sup>C</sup>	Extraversion <sup>D</sup>	Agreeableness <sup>C</sup>	Neuroticism <sup>D</sup>
SOAS Time 1	-.25***	.10*	.18***	-.10*	.02
SOAS-S Time 1	-.35***	.05	.11*	-.16**	.02
SOAS Time 2	-.23***	.04	.08	-.10***	-.09
SOAS-S Time 2	-.34***	-.03	.01	-.22***	-.06

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$  (all 2-tailed);

<sup>C</sup> = Convergent Measures; <sup>D</sup> = Divergent Measures.

To examine the effect a participant's exposure to sex offenses and sex offenders has on his or her attitude toward sex offenders, participants were presented with four questions related to this matter. The first asked, "Do you know anyone who is a sex offender?" The second asked, "Have you ever been a victim of a sex offense?" The third asked, "Have you ever committed a sex offense?" The fourth asked, "Do you know anyone who has been the victim of a sex offense?" The SOAS and SOAS-S scores were weakly but occasionally significantly related to Question 2 ( $r = .15$ ,  $p < .01$  and,  $r = .11$ ,  $p < .05$ , respectively at Time 1; where  $r = .13$ ,  $p < .01$  and,  $r = .10$ ,  $p < .05$ , respectively at Time 2) and Question 4 ( $r = .04$ ,  $p = ns$  and,  $r = .01$ ,  $p = ns$ , respectively at Time 1; where  $r = .10$ ,  $p < .05$  and,  $r = .10$ ,  $p < .05$ , respectively at Time 2). A substantial minority of participants positively endorsed the constructs of knowing a sex offender, having been a victim of a sex offense, and knowing a victim of a sex offense. Only two participants in Time 1 and two participants in Time 2 endorsed having committed a sex offense (See Table 13).

Table 13

*Correlation Matrix SOAS and SOAS-S – Sex Offense History Questionnaire at Time 2*

	Sex Offense History 1	Sex Offense History 2	Sex Offense History 3	Sex Offense History 4
SOAS Time 1	.08	.15**	.01	.04
SOAS-S Time 1	.05	.11*	-.03	.01
SOAS Time 2	.03	.13**	-.04	.10*
SOAS-S Time 2	.00	.10*	-.04	.10*

Note: \* =  $p \leq .05$ ; \*\* =  $p \leq .01$ ; \*\*\* =  $p \leq .001$  (all 2-tailed).

## CHAPTER 4

### DISCUSSION

Due to the number and magnitude of problems associated with sex offenses for the victim, the perpetrator, and society at large, it is necessary to make strides in attenuating the perpetration of these offenses and subsequent consequences (Brown, Spencer, & Deakin, 2007; National Center for Missing & Exploited Children, 2011; Smith & Breiding, 2011). A first step in making such strides is gaining a better understanding of the offenses, the offenders, and attitudes of the general public toward these offenders. The Sex Offender Attitude Scale was developed to address this need (Bogle, 2009). The original 27-item version of the SOAS was developed by a committee of students and faculty based upon the work of Federoff and Moran's (1997) myths and misconceptions about sex offenders. Further research reduced the instrument to 17 items via factor analytic statistical procedures. Initial results indicated the SOAS is a valid and reliable instrument for measuring attitudes toward sex offenders. A primary purpose of this study was to replicate these findings by examining and establishing the stability, validity, and utility of the instrument.

A predominant goal in measurement development is to produce an instrument that is concise, valid, and reliable. As is stated above, the 17-item version of the instrument was subjected to confirmatory factor analysis with this sample and all but one of the items loaded onto a single interpretable factor. Further, more stringent factor loadings of .6 yielded a 9-item version that has very similar psychometric properties of the 17-item version. Results indicate that both the 17-item and 9-item versions are sound instrument for measuring this construct, and that the SOAS-S is a reliable replacement for the 17-item version. In regards to clinical and research

utility, the SOAS-S may be a better choice as it retains similar psychometric properties as the SOAS while reducing the time for administration, scoring, and interpretation.

The degree to which any instrument demonstrates utility in clinical and research settings is partially determined by its reliability and stability. The internal reliability of the items within an instrument is an important psychometric property as it is indicative of the consistency of the items in relation to the measured construct (Cronbach, 1951). It was hypothesized that the SOAS would be a reliable and stable instrument as evidenced by a Cronbach's Alpha reliability statistic of  $\alpha = .8$  or greater and a statistically significant positive correlation between two administrations within a single sample. Indeed, both the SOAS and the SOAS-S exceed this criterion, indicating high degrees of internal consistency among their respective items. The high internal consistency is important in that it is indicative of the degree to which each of the items within the measure are related to the measured construct. This level of internal consistency indicates that each item measures the specific construct, in this case, attitudes toward sex offenders.

To address the stability of the SOAS and SOAS-S over time, participants were grouped according to the amount of time between two administrations of the SOAS. In each of these time groups the stability of the SOAS was clearly evident by its repeated statistically significant positive correlations between the initial and subsequent administration regardless of the amount of time between each administration. Replication of these results would be beneficial in providing further validation of the psychometric properties of the instrument.

Due to the consistency of answers between two administrations of the same measure within the same sample, it seems that attitudes toward sex offenders are more trait like than state like. Although further inquiry is required to investigate this notion further; however, these results

are give insight into the nature of attitudes toward a particular ostracized population. The NEO – Big 5, a well-established measure of personality traits, had stability coefficients ranging from .65 to .93 at each time group. Accordingly, the SOAS also had relatively similar stability coefficients ranging from .80 to .94 during the same time gaps. It may be that stable, trait-like attitudes are more difficult to change and as such, this information should be taken into consideration when developing reintegration and treatment strategies that target changing attitudes or attenuating discriminatory behaviors toward sex offenders.

Higher SOAS scores indicate more negative, stigmatizing, and less tolerant attitudes toward sex offenders. Accordingly, it makes intuitive sense that participants who endorsed higher scores on measures of agreeableness, openness, tolerance, forgiveness, and empathy would have lower SOAS scores, and indeed this was the case for this sample of participants. However, in the case of Empathy the relationship was not as strong as would be expected given the nature of the construct. It is not clear as to why this is the case with this sample and further replication with this measure of Empathy as well as others may help bear out the reasons for this phenomenon. Because higher scores on the SOAS indicate stigmatizing attitudes, participants who with high SOAS scores should also have high scores on an additional measure of stigma. This held true for participants in this sample, as those who demonstrated higher scores on the SOAS also demonstrated high scores on the Attitude Scale for Mental Illness. All of these relationships indicate convergent validity in that the SOAS is appropriately related to measures that it should be related to if it is indeed measuring negative and stigmatizing attitudes.

Convergent validity is beneficial because it indicates that the SOAS is measuring specific constructs; however, if the SOAS is related to any and every construct, it has no specificity and, therefore, no utility in measuring attitudes toward sex offenders. However, this is not the case.

The SOAS scores were compared to scores on a measure of Cognitive Failures and Neuroticism neither of which were related, as was expected. There is no discernable reason for these constructs to be related and because they are not, it indicates that the SOAS is specific to measuring attitudes toward sex offenders.

In regards to the effect of experience with sex offenders and offenses as investigated by the four item Sex Offense History questionnaire, it appears that having familiarity with a victim of a sex offense, whether personal experience or the experience of an acquaintance, has a greater bearing on attitudes toward sex offenders than does being or knowing a sex offender. Only two people endorsed having committed a sex offense and it seems that in a sample of 772 individuals, more than two people would have committed a sex offense. Given the pervasiveness and extent of the stigma and discrimination directed toward sex offenders, it is not surprising that participants would not want to voluntarily accept that identity, despite the fact that participant identities are confidential and anonymity is ensured.

### *Limitations*

Although great care was taken to conduct this study in a manner consistent with the highest standards of empirical inquiry, it is not free of limitations. This study was limited by a relatively homogenous sample comprised of undergraduate students from a moderately sized university in the southeastern United States. While this method of using a convenience sample is common practice, it is not ideal and hopefully future research will replicate this study with a more diverse sample. Another limitation to this study is the fact that the data were collected via self-report questionnaires. Again, while a common practice, this method is fraught with several issues inherent to self-report measures such as the tendency toward socially desirable responding, response sets or lack of dedication to the task of filling out surveys in a genuine manner.

Although it doesn't appear to be a factor, participants may be responding to items in the second administration in a manner consistent with the first administration due to the effect of memory. It would be beneficial to test this notion in the future by having a larger sample of participants within a greater number of administration groups. Additionally, future investigations should include a measure to account for the effect of social desirability on participant responses, especially in questions regarding personal experience with sex offenders and sex offenses. Another limitation may be a self-selection bias that may motivate certain participants to choose to participate in the second administration of the study. Despite the aforementioned limitations, the findings of the present research indicate the SOAS and the SOAS-S are stable and valid instruments that measure attitudes toward sex offenders.

#### *Future directions*

The proliferation of sex offenders in the United States makes it evident that a systematic approach is needed to effectively manage the plethora of issues that have unfortunately become commonplace. While there is a significant body of literature addressing treatment for sex offenders, there remains a paucity of literature regarding interventions targeting the societal factors that contribute to recidivism in this population. Future research is needed from a macro level to investigate ways in which stigma and discrimination toward sex offenders can be attenuated in the general population as well as with those who work with offenders in therapeutic and punitive settings.

Due to the lack of empirical work in the literature, this field of study is in need of further exploration. Future research should focus more specifically on the variables that affect an individual's attitudes and resulting behaviors toward sex offenders. Continued investigation is warranted to determine the degree to which specific nuances of offenders and offenses affect on

attitudes toward sex offenders. It is hoped that by better understanding these phenomena effective interventions can be developed and employed to increase maximal reintegration into society in hopes of decreasing recidivism rates, although this has yet to be determined. The development and refinement of the SOAS is the initial step in this endeavor. To this point the SOAS and SOAS-S have only been examined in the lab and these instruments are ready to be used in practical and clinical settings.

The results are also promising in terms of suggesting that there are possible uses for the SOAS measure in a variety of areas of sex offender rehabilitation, including treatment and reintegration programs. While the actual future uses of the SOAS are yet to be specifically determined, it is hoped that it will be a screening tool on a micro level for individuals who work with offenders in rehabilitative environments and at a macro level to identify geographic areas that may be more welcoming of offenders. Further studies that investigate the psychometric properties of the SOAS are welcomed in an ongoing attempt to develop the most valid, concise, and effective method of evaluating attitudes toward sex offenders.

The Sex Offender Attitude Scale (SOAS) was designed to quantify the level of negative attitudes people hold with regard to sex offenders, and initial statistical analyses indicated it was reliable and likely valid. This study sought to replicate with a new sample, previous analyses with regard to reliability, and to gain further evidence that the SOAS demonstrates quality psychometric properties. Indeed it appears that the SOAS and the SOAS-S are both valid and reliable instruments that have promising utility in a variety of research and clinical settings where accurately measuring attitudes toward sex offenders would be beneficial.

## REFERENCES

- Adams, C. L., White, D. R., Bogle, B. C., & Dula, C. S. (2008, May). The effect of forgiveness on the attitude toward sex offenders. Poster presented at the 20th Annual Convention of the Association for Psychological Science (APS), Chicago, IL.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR* (4<sup>th</sup> ed., text revision). Arlington, VA: Author.
- Ball, S. A., Tennen, H., Poling, J. C., Kranzler, H. R., & Rounsaville, B. J. (1997). Personality, temperament, and character dimensions and the DSM-IV personality disorders in substance abusers. *Journal Of Abnormal Psychology, 106*, 545-553. doi:10.1037/0021-843X.106.4.545
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122-147. doi:10.1037/0003-066X.37.2.122
- Bates, A., & Metcalf, C. (2007). A psychometric comparison of internet and non-internet sex offenders from a community treatment sample. *Journal of Sexual Aggression, 13*, 11-20. doi:10.1080/13552600701365654
- Bauman, S., & Kopp, G. (2006). Integrating a humanistic approach in outpatient sex offender groups. *The Journal For Specialists in Group Work, 31*, 247-261. doi:10.1080/01933920600777931
- Bauserman, R. (1996). Sexual aggression and pornography: A review of correlational research. *Basic and Applied Social Psychology, 18*, 405-427. doi:10.1207/s15324834basp1804\_4
- Beck, V., & Travis, L. (2004). Sex offender notification and protective behavior. *Violence and Victims, 19*, 289-302. doi:10.1891/vivi.19.3.289.65762

- Becker, J., & Murphy, W. (1998). What we know and do not know about assessing and treating sex offenders. *Psychology, Public Policy, and Law*, 4, 116-137. doi: 10.1037/10492-005
- Bensimon, P. (2007). The role of pornography in sexual offending. *Sexual Addiction & Compulsivity*, 14, 95-117. doi:10.1080/10720160701310468
- Bergen, R. (2000). Exploring the connection between pornography and sexual violence. *Violence and Victims*, 15, 227-234. doi: not available.
- Bernstein, D. P., Fink, L., Handelsman, L., & Foote, J. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. *American Journal of Psychiatry*, 151, 1132-1136.
- Blitz, C. (2006). Predictors of stable employment among female inmates in New Jersey: Implications for successful reintegration. *Journal of Offender Rehabilitation*, 43, 1-22. doi:10.1300/J076v43n01\_01
- Bogle, B., Chumney, F., Morelock, A.M., Burns, L., Jones, S., & Dula, C.S., (2005, November). Public Perceptions of Sex Offenders. Poster presented at the Annual Convention of the Tennessee Psychological Association, Nashville, TN.
- Bogle, B. (2009). *Initial development of the sex offender attitude scale*. East Tennessee State University. ProQuest Dissertations and Theses, <https://login.ezproxy.etsu.edu:3443/login?url=http://search.proquest.com/docview/304882595?accountid=10771>
- Bonnar-Kidd, K. (2010). Sexual offender laws and prevention of sexual violence or recidivism. *American Journal of Public Health*, 100, 412-419. doi:10.2105/AJPH.2008.153254

- Boysen, G. A., & Vogel, D. L. (2008). Education and mental health stigma: The effects of attribution, biased assimilation, and attitude polarization. *Journal Of Social And Clinical Psychology, 27*, 447-470. doi:10.1521/jscp.2008.27.5.447
- Breckler, S. J., & Wiggins, E. C. (1989). On defining attitude and attitude theory: Once more with feeling. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), *Attitude structure and function* (pp. 407-427). Hillsdale, NJ England: Lawrence Erlbaum Associates.
- Briggs, P., Simon, W. T., & Simonsen, S. (2011). An exploratory study of Internet-initiated sexual offenses and the chat room sex offender: Has the Internet enabled a new typology of sex offender? *Sexual Abuse: Journal Of Research And Treatment, 23*, 72-91. doi:10.1177/1079063210384275
- Brown, S. (1999). Public attitudes toward the treatment of sex offenders. *Legal And Criminological Psychology, 4*(Part 2), 239-252. doi:10.1348/135532599167879
- Brown, K., Spencer, J., & Deakin, J. (2007). The Reintegration of Sex Offenders: Barriers and Opportunities for Employment. *Howard Journal Of Criminal Justice, 46*, 32-42. doi:10.1111/j.1468-2311.2007.00452.x
- Brown, S., Deakin, J., & Spencer, J. (2008). What people think about the management of sex offenders in the community. *Howard Journal Of Criminal Justice, 47*, 259-274. doi:10.1111/j.1468-2311.2008.00519.x
- Burns, L., Chumney, F. L., Bogle, B., Jone, S., Morelock, A., & Dula, C. S. (2006, April). The relationships between academic stress, reactions to stress, and the Big Five Personality Traits. Poster presented at the 20th National Conference on Undergraduate Research, Asheville, NC.

- Butler, B. (2006). Jurors' attitudes toward post-sentence civil commitment. *American Journal Of Forensic Psychology, 24*, 21-30. doi: unavailable.
- Callero, P. L. (1985). Role-identity salience. *Social Psychology Quarterly, 48*, 203-215.  
doi:10.2307/3033681
- Center for Sex Offender Management (2007). A Project of the U.S. Department of Justice, Office of Justice Programs. Managing the Challenges of Sex Offender Reentry. Retrieved from the World Wide Web on February 13, 2009: Available at [http://www.csom.org/pubs/reentry\\_brief.pdf](http://www.csom.org/pubs/reentry_brief.pdf).
- Cesaroni, C. (2001). Releasing sex offenders into the community through 'circles of support'--a means of reintegrating the 'worst of the worst'. *Journal Of Offender Rehabilitation, 34*, 85-98. doi:10.1300/J076v34n02\_06
- Church, W., Wakeman, E. E., Miller, S. L., Clements, C. B., & Sun, F. (2010). 'The Community Attitudes Toward Sex Offenders Scale: The development of a psychometric assessment instrument': Erratum. *Research On Social Work Practice, 20*,  
doi:10.1177/1049731510387096
- Cloninger, C., Svrakic, D. M., & Przybeck, T. R. (1993). A psychobiological model of temperament and character. *Archives Of General Psychiatry, 50*, 975-990.  
doi:10.1001/archpsyc.1993.01820240059008
- Collier, L., Bogle, B., & Dula, C. (2007, November). The interplay between the constructs of sympathy, empathy, and forgiveness. Poster presented at the Tennessee Psychological Association conference, Nashville, TN.
- Craig, L. A. (2005). The impact of training on attitudes towards sex offenders. *Journal Of Sexual*

- Aggression, 11*, 197-207. doi:10.1080/13552600500172103
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin, 115*, 74-101. doi:10.1037/0033-2909.115.1.74
- Corrigan, P. W. (2007). How clinical diagnosis might exacerbate the stigma of mental illness. *Social Work, 52*, 31-39. doi:10.1093/sw/52.1.31
- Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In S. Fiske, D. Gilbert, and G. Lindzey (Eds.), *Handbook of social psychology, 2*, 504-553. Boston, MA: McGraw Hill.
- Crocker, L., & Algina, J. (1986). Introduction to classical and modern test theory. Fort Worth, TX: Harcourt Brace Jovanovich.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334. doi:10.1007/BF02310555
- Cunningham, S. D., Kerrigan, D. L., Jennings, J. M., & Ellen, J. M. (2009). Relationships between perceived STD-related stigma, STD-related shame and STD screening among a household sample of adolescents. *Perspectives On Sexual And Reproductive Health, 41*, 225-230. doi:10.1363/4122509
- Dula, C.S., Lehman, P.K., Geller, E.S., & Chumney, F.L. (2009). A survey of social influence: Measuring individual differences in vulnerability to social pressure. Unpublished manuscript.
- Empathy. 2012. In Merriam-Webster.com. Retrieved May 8, 2012, from <http://www.merriam-webster.com/dictionary/empathy>.

- Engle, M. J., McFalls, J. r., & Gallagher, B. (2007). The attitudes of members of the association for the treatment of sexual abusers towards treatment, release, and recidivism of violent sex offenders: An exploratory study. *Journal Of Offender Rehabilitation, 44*, 17-24.  
doi:10.1300/J076v44n04\_02
- Faigin, D. A., & Stein, C. H. (2008). Comparing the effects of live and video-taped theatrical performance in decreasing stigmatization of people with serious mental illness. *Journal Of Mental Health, 17*, 594-606. doi:10.1080/09638230701505822
- Farrenkopf, T. (1992). What happens to therapists who work with sex offenders? *Journal Of Offender Rehabilitation, 18*, 217-223. doi:10.1300/J076v18n03\_16
- Fedoroff, J. (1995). Antiandrogens vs. serotonergic medications in the treatment of sex offenders: A preliminary compliance study? *Canadian Journal Of Human Sexuality, 4*, 111-122.
- Fedoroff, J., & Moran, B. (1997). Myths and misconceptions about sex offenders. *Canadian Journal Of Human Sexuality, 6*, 263-276.
- Ferguson, K., & Ireland, C. A. (2006). Attitudes towards sex offenders and the influence of offence type: A comparison of staff working in a forensic setting and students. *The British Journal Of Forensic Practice, 8*, 10-19. doi:10.1108/14636646200600009
- Fiske, S. T. (1995). Social cognition. In Tesser, A. (Ed.) *Advanced social psychology*. (pp. 149-193). New York, NY: Mcgraw-Hill.
- Fletcher, T. D., & Nusbaum, D. N. (2008). Trait competitiveness as a composite variable: Linkages with facets of the big-five. *Personality And Individual Differences, 45*, 312-317. doi:10.1016/j.paid.2008.04.020

- Furby, L., Weinrott, M. R., & Blackshaw, L. (1989). Sex offender recidivism: A review. *Psychological Bulletin, 105*, 3-30. doi:10.1037/0033-2909.105.1.3
- Fortney, T., Baker, J. N., & Levenson, J. (2009). A look in the mirror: Sexual abuse professionals' perceptions about sex offenders. *Victims & Offenders, 4*, 42-57. doi:10.1080/15564880802561754
- Gannon, T. A., & Polaschek, D. L. (2005). Do Child Molesters Deliberately Fake Good on Cognitive Distortion Questionnaires? An Information Processing-Based Investigation. *Sexual Abuse: Journal Of Research And Treatment, 17*, 183-200. doi:10.1177/107906320501700208
- Gaines, J. S. (2006). Law enforcement reactions to sex offender registration and community notification. *Police Practice & Research: An International Journal, 7*, 249-267. doi:10.1080/15614260600825448
- Gibbens, T. C., Soothill, K. L., & Way, C. K. (1981). Sex offences against young girls: A long-term record study. *Psychological Medicine: A Journal Of Research In Psychiatry And The Allied Sciences, 11*, 351-357. doi:10.1017/S0033291700052168
- Gilmer, K. S., Chumney, F. L., & Dula, C. S. (2007, May). Effect of context on the NEO-FFI. Poster presented at the Annual Convention of the Association for Psychological Science, Washington, DC.
- Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice-Hall.

- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C., & Gough, H. G. (2006). The international personality item pool and the future of public-domain personality measures. *Journal Of Research In Personality, 40*, 84-96.  
doi:10.1016/j.jrp.2005.08.007
- Gow, A. J., Whiteman, M. C., Pattie, A., & Deary, I. J. (2005). Goldberg's 'IPIP' Big-Five factor markers: Internal consistency and concurrent validation in Scotland. *Personality And Individual Differences, 39*, 317-329. doi:10.1016/j.paid.2005.01.011
- Groth, A. (1977). The adolescent sexual offender and his prey. *International Journal Of Offender Therapy And Comparative Criminology, 21*, 249-254.  
doi:10.1177/0306624X7702100309
- Groth, A., Burgess, A. W., & Holmstrom, L. L. (1977). Rape: Power, anger, and sexuality. *The American Journal Of Psychiatry, 134*, 1239-1243.
- Guy, L. S., & Edens, J. F. (2006). Gender differences in attitudes toward psychopathic sexual offenders. *Behavioral Sciences & The Law, 24*, 65-85. doi:10.1002/bsl.665
- Graffam, J., Shinkfield, A., Lavelle, B., & McPherson, W. (2004). Variables affecting successful reintegration as perceived by offenders and professionals. *Journal Of Offender Rehabilitation, 40*, 147-171. doi:10.1300/J076v40n01\_08
- Greenfield, L. (1997). Sex Offenses and Offenders: An analysis of data on rape and sexual assault, NCJ-163392, Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.

- Grieve, A., McLaren, S., Lindsay, W., & Culling, E. (2009). Staff attitudes towards the sexuality of people with learning disabilities: A comparison of different professional groups and residential facilities. *British Journal Of Learning Disabilities, 37*, 76-84.  
doi:10.1111/j.1468-3156.2008.00528.x
- Hanson, A., Berlin, F., Malin, H., Fedoroff, J., & McGuire, M. (1992). Simulated paraphilias: A preliminary study of patients who imitate or exaggerate paraphilic symptoms and behaviors. *Journal Of Forensic Sciences, 37*, 902-911.
- Hanson, R. (1998). What do we know about sex offender risk assessment? *Psychology, Public Policy, And Law, 4*(1-2), 50-72. doi:10.1037/1076-8971.4.1-2.50
- Hanson, R., & Morton-Bourgon, K. E. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal Of Consulting And Clinical Psychology, 73*, 1154-1163. doi:10.1037/0022-006X.73.6.1154
- Harrison, B., & Schehr, R. (2004). Offenders and post-release jobs: Variables influencing success and failure. *Journal Of Offender Rehabilitation, 39*, 35-68.  
doi:10.1300/J076v39n03\_03
- Hebl, M. R., & Kleck, R. E. (2000). The social consequences of physical disability. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, J. G. Hull (Eds.), *The social psychology of stigma* (pp. 419-439). New York, NY: Guilford Press.
- Higgins, E. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. Higgins, & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133-168). New York, NY: Guilford Press.

- Hill, G., & Hill, K. (2012). Sex offender. The People's Law Dictionary. Retrieved from the World Wide Web April 12, 2012: <http://dictionary.law.com/Default.aspx?selected=1943>
- Howitt, D., & Sheldon, K. (2007). The role of cognitive distortions in paedophilic offending: Internet and contact offenders compared. *Psychology, Crime & Law, 13*, 469-486.  
doi:10.1080/10683160601060564
- International Personality Item Pool (2011). A scientific collaboratory for the development of advanced measures of personality traits and other individual differences. Retrieved from the World Wide Web on January 20, 2011: <http://ipip.ori.org>.
- Johnston, L., Ward, T., & Hudson, S. M. (1997). Deviant sexual thoughts: Mental control and the treatment of sexual offenders. *Journal Of Sex Research, 34*, 121-130.  
doi:10.1080/00224499709551876
- Kernsmith, P. D., Craun, S. W., & Foster, J. (2009). Public attitudes toward sexual offenders and sex offender registration. *Journal Of Child Sexual Abuse: Research, Treatment, & Program Innovations For Victims, Survivors, & Offenders, 18*, 290-301.  
doi:10.1080/10538710902901663
- Kingston, D. A., Fedoroff, P., Firestone, P., Curry, S., & Bradford, J. M. (2008). Pornography use and sexual aggression: The impact of frequency and type of pornography use on recidivism among sexual offenders. *Aggressive Behavior, 34*, 341-351.  
doi:10.1002/ab.20250
- Kingston, D. A., Malamuth, N. M., Fedoroff, P., & Marshall, W. L. (2009). The importance of individual differences in pornography use: Theoretical perspectives and implications for treating sexual offenders. *Journal Of Sex Research, 46*(2-3), 216-232.  
doi:10.1080/00224490902747701

- Langevin, R., & Curnoe, S. (2004). The use of pornography during the commission of sexual offenses. *International Journal Of Offender Therapy And Comparative Criminology*, 48, 572-586. doi:10.1177/0306624X03262518
- Langevin, R., Glancy, G. D., Curnoe, S. S., & Bain, J. J. (1999). Physicians who commit sexual offenses: Are they different from other sex offenders? *The Canadian Journal Of Psychiatry / La Revue Canadienne De Psychiatrie*, 44, 775-786.
- Langevin, R., Lang, R. A., & Curnoe, S. (1998). The prevalence of sex offenders with deviant fantasies. *Journal Of Interpersonal Violence*, 13, 315-327.  
doi:10.1177/088626098013003001
- Levenson, J. S., Brannon, Y. N., Fortney, T., & Baker, J. (2007). Public perceptions about sex offenders and community protection policies. *Analyses Of Social Issues And Public Policy (ASAP)*, 7, 137-161.
- Levenson, J. S., & Cotter, L. P. (2005). The impact of sex offender residence restrictions: 1,000 feet from danger or one step from absurd? *International Journal Of Offender Therapy And Comparative Criminology*, 49, 168-178. doi:10.1177/0306624X04271304
- Levenson, J. S., D'Amora, D. A., & Hern, A. L. (2007). Megan's Law and its impact on community re-entry for sex offenders. *Behavioral Sciences & The Law*, 25, 587-602.  
doi:10.1002/bsl.770
- Levenson, J. S., Macgowan, M. J., Morin, J. W., & Cotter, L. P. (2009). Perceptions of sex offenders about treatment: Satisfaction and engagement in group therapy. *Sexual Abuse: Journal Of Research And Treatment*, 21, 35-56. doi:10.1177/1079063208326072

- Levenson, J. S., & Morin, J. W. (2006). Factors predicting selection of sexually violent predators for civil commitment. *International Journal Of Offender Therapy And Comparative Criminology*, *50*, 609-629. doi:10.1177/0306624X06287644
- Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology*, *56*, 393-421. doi:10.1146/annurev.psych.56.091103.070137
- Mann, R., Webster, S., Wakeling, H., & Marshall, W. (2007). The measurement and influence of child sexual abuse supportive beliefs. *Psychology, Crime & Law*, *13*, 443-458. doi:10.1080/10683160601061141
- Marshall, W. L., Jones, R., Ward, T., & Johnston, P. (1991). Treatment outcome with sex offenders. *Clinical Psychology Review*, *11*, 465-485. doi:10.1016/0272-7358(91)90119-F
- Martin, B. A., Russell, R. B., White, D. R., Adams, C., & Dula, C. S. (2008, March). Relationships between tattoos and the big five personality traits. Poster presented at the Annual Convention of the Southeastern Psychological Association, Charlotte, NC.
- Masuda, A., Price, M., Anderson, P. L., Schmertz, S. K., & Calamaras, M. R. (2009). The role of psychological flexibility in mental health stigma and psychological distress for the stigmatizer. *Journal Of Social And Clinical Psychology*, *28*, 1244-1262. doi:10.1521/jscp.2009.28.10.1244
- Matson, S., & Lieb, R. (1996) Sex offender registration: a review of State laws Olympia, WA: Washington State Institute for Public Policy, 48pp. Retrieved from the World Wide Web on February 11, 2009: Available at <http://www.wsipp.wa.gov/rptfiles/regsrtm.pdf>.
- McConnell, A. R., Rydell, R. J., Strain, L. M., & Mackie, D. M. (2008). Forming implicit and explicit attitudes toward individuals: Social group association cues. *Journal Of Personality And Social Psychology*, *94*, 792-807. doi:10.1037/0022-3514.94.5.792

- McCrae, R. R., & Costa, P. r. (2004). A contemplated revision of the NEO Five-Factor Inventory. *Personality And Individual Differences, 36*, 587-596. doi:10.1016/S0191-8869(03)00118-1
- McIntire, S. A., & Miller, L. A. (2007). Foundations of psychological testing: A practical approach (2nd ed.). Thousand Oaks, CA: Sage.
- Meloy, M. L., Miller, S. L., & Curtis, K. M. (2008). Making sense out of nonsense: The deconstruction of state-level sex offender residence restrictions. *American Journal Of Criminal Justice, 33*, 209-222. doi:10.1007/s12103-008-9042-2
- Minnesota Department of Corrections (2011). Sex offenders in prison. Retrieved from the World Wide Web on February 19, 2011:  
<http://www.doc.state.mn.us/publications/backgrounders/documents/12-08SexOffenderBackgrounder.pdf>
- Michie, A. M., Lindsay, W. R., Martin, V., & Grieve, A. (2006). A test of counterfeit deviance: A comparison of sexual knowledge in groups of sex offenders with intellectual disability and controls. *Sexual Abuse: Journal Of Research And Treatment, 18*, 271-278.  
doi:10.1177/107906320601800305
- Naser, R. L., & La Vigne, N. G. (2006). Family support in the prisoner reentry process expectations and realities. *Journal Of Offender Rehabilitation, 43*, 93-106.  
doi:10.1300/J076v43n01\_05
- National Center for Missing & Exploited Children (2011). *Map of registered sex offenders in the United States*. Retrieved from the World Wide Web on January 17, 2012 from:  
[http://www.missingkids.com/en\\_US/documents/sex-offender-map.pdf](http://www.missingkids.com/en_US/documents/sex-offender-map.pdf)

- Nelson, M., Herlihy, B., & Oescher, J. (2002). A survey of counselor attitudes towards sex offenders. *Journal of Mental Health Counseling, 24*, 51-67.
- Ng, P., & Chan, K. (2000). Sex differences in opinion towards mental illness of secondary school students in Hong Kong. *International Journal Of Social Psychiatry, 46*, 79-88.  
doi:10.1177/002076400004600201
- Norman, L. R., Abreu, S., Candelaria, E., & Sala, A. (2009). The effect of sympathy on discriminatory attitudes toward persons living with HIV/AIDS in Puerto Rico: A hierarchical analysis of women living in public housing. *AIDS Care, 21*, 140-149.  
doi:10.1080/09540120801932199
- Nunnally, J., & Bernstein, I. (1994). *Psychometric theory* (3<sup>rd</sup> ed.) New York, NY: McGraw-Hill.
- Palermo, G. B. (2009). Reintegration and recidivism. *International Journal Of Offender Therapy And Comparative Criminology, 53*, 3-4. doi:10.1177/0306624X08329575
- Payne, B. K., Tewksbury, R., & Mustaine, E. (2010). Attitudes about rehabilitating sex offenders: Demographic, victimization, and community-level influences. *Journal of Criminal Justice, 38*, 580-588. doi:10.1016/j.jcrimjus.2010.04.029
- Polaschek, D. L. (2003). Relapse prevention, offense process models, and the treatment of sexual offenders. *Professional Psychology: Research And Practice, 34*, 361-367.  
doi:10.1037/0735-7028.34.4.361
- Price-Jones, D., & Barrowcliff, A. (2010). Attitudes towards sex offenders regarding competency, liability, voluntariness of offence, and disposal: The influence of being classified as having a learning disability. *Psychology, Crime & Law, 16*, 251-263.  
doi:10.1080/10683160802672613

- Putman, S. S. (2008). Mental illness: Diagnostic title or derogatory term? (Attitudes towards mental illness) developing a learning resource for use within a clinical call centre. A systematic literature review on attitudes towards mental illness. *Journal Of Psychiatric And Mental Health Nursing, 15*, 684-693. doi:10.1111/j.1365-2850.2008.01288.x
- Reimer, W. L., & Mathieu, T. (2006). Therapeutic factors in group treatment as perceived by sex offenders: A 'consumers' report'. *Journal Of Offender Rehabilitation, 42*, 59-73. doi:10.1300/J076v42n04\_04
- Resnik, A. G. (2008). The human sexual response cycle: Psychotropic side effects and treatment strategies. *Psychiatric Annals, 38*, 267-280. doi:10.3928/00485713-20080401-07
- Robie, C., Brown, D. J., & Bly, P. R. (2005). The big five in the USA and Japan. *Journal Of Management Development, 24*, 720-737. doi:10.1108/02621710510613744
- Sahlstrom, K. J., & Jeglic, E. L. (2008). Factors affecting attitudes toward juvenile sex offenders. *Journal Of Child Sexual Abuse: Research, Treatment, & Program Innovations For Victims, Survivors, & Offenders, 17*, 180-196. doi:10.1080/10538710801916705
- Sanghara, K. K., & Wilson, J. (2006). Stereotypes and attitudes about child sexual abusers: A comparison of experienced and inexperienced professionals in sex offender treatment. *Legal And Criminological Psychology, 11*, 229-244. doi:10.1348/135532505X68818
- Schaffer, M., Jeglic, E. L., Moster, A., & Wnuk, D. (2010). Cognitive-behavioral therapy in the treatment management of sex offenders. *Journal Of Cognitive Psychotherapy, 24*, 92-103. doi:10.1891/0889-8391.24.2.92
- Schiavone, S., & Jeglic, E. L. (2009). Public perception of sex offender social policies and the impact on sex offenders. *International Journal Of Offender Therapy And Comparative Criminology, 53*, 679-695. doi:10.1177/0306624X08323454

- Schwartz, B. K., & Cellini, H. R. (1995). Female sex offenders. In B. K. Schwartz, H. R. Cellini (Eds.), *The sex offender: Corrections, treatment and legal practice* (pp. 5-1-5-22). Kingston, NJ: Civic Research Institute.
- Scully, D., & Marolla, J. (2003). Interviewing in a difficult situation: 'Riding the bull at Gilley's': Convicted rapists describe the rewards of rape. In J. M. Henslin (Ed.), *Down to earth sociology: Introductory readings* (12th ed.) (pp. 48-64). New York, NY: Free Press.
- Serran, G. G., Fernandez, Y. Y., Marshall, W. L., & Mann, R. E. (2003). Process issues in treatment: Application to sexual offender programs. *Professional Psychology: Research And Practice*, *34*, 368-374. doi:10.1037/0735-7028.34.4.368
- Seto, M. C., Cantor, J. M., & Blanchard, R. (2006). Child pornography offenses are a valid diagnostic indicator of pedophilia. *Journal Of Abnormal Psychology*, *115*, 610-615. doi:10.1037/0021-843X.115.3.610
- Shechory, M., & Idisis, Y. (2006). Rape myths and social distance toward sex offenders and victims among therapists and students. *Sex Roles*, *54*(9-10), 651-658. doi:10.1007/s11199-006-9031-1
- Slade, S., Molloy, E., & Keating, J. (2009). Stigma experienced by people with nonspecific chronic low back pain: A qualitative study. *Pain Medicine*, *10*, 143-154. doi:10.1111/j.1526-4637.2008.00540.x
- Smith, S. G., & Breiding, M. J. (2011). Chronic disease and health behaviours linked to experiences of non-consensual sex among women and men. *Public Health*, *125*, 653-659. doi:10.1016/j.puhe.2011.06.006

- State of Washington Sentencing Guidelines Commission (2004). Sex offender sentencing. Retrieved from the World Wide Web on February 15, 2009: <http://www.sgc.wa.gov/PUBS/SSOSARreport.pdf>.
- Stellar, E. (1954). The physiology of motivation. *Psychological Review*, 61, 5-22.
- Tjaden, P., & Thoennes, N.(2006). *Extent, Nature, and Consequences of Rape Victimization: Findings From the National Violence Against Women Survey. Special Report*. Washington, DC: National Institute of Justice and the Centers for Disease Control and Prevention.
- Tennfjord, O. (2006). Prediction of attitudes towards child sexual abuse among three different Norwegian samples. *Journal Of Sexual Aggression*, 12, 245-263. doi:10.1080/13552600601090196
- Tardif, M., Auclair, N., Jacob, M., & Carpentier, J. (2005). Sexual abuse perpetrated by adult and juvenile females: An ultimate attempt to resolve a conflict associated with maternal identity. *Child Abuse & Neglect*, 29, 153-167. doi:10.1016/j.chiabu.2004.05.006
- Tewksbury, R. (2004). Experiences and attitudes of registered female sex offenders. *Federal Probation, Administrative Office of the United States Courts*, 68, 30-33.
- Tewksbury, R., & Lees, M. (2006). Perceptions of sex offender registration: Collateral consequences and community experiences. *Sociological Spectrum*, 26, 309-334. doi:10.1080/02732170500524246
- Tiefenwerth, T. (2008). Criminal sexuality and psychopathology: Pornography as a contributory risk factor in the psycho-social development of violent sex offender. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 68(8-A), 3602.

- Tolerance. (2012). In Merriam-Webster.com. Retrieved May 8, 2012, from <http://www.merriam-webster.com/dictionary/tolerance>.
- Trivits, L. C., & Reppucci, N. (2002). Application of Megan's law to juveniles. *American Psychologist, 57*, 690-704. doi:10.1037/0003-066X.57.9.690
- Truman, J.L. (2011). *National crime victimization survey: criminal victimization, 2010*. U.S. Department of Justice: Washington, DC. Retrieved from the World Wide Web on January 17, 2012 from: <http://www.bjs.gov/content/pub/pdf/cv10.pdf>
- U.S. Department of Justice: Office of Justice Programs: Bureau of Justice Statistics (2003). 5 percent of sex offenders rearrested for another sex crime within 3 years of prison release. Retrieved from the World Wide Web on February 19, 2009 from: <http://bjs.ojp.usdoj.gov/content/pub/ascii/ecp.txt>
- Valliant, P. M., Furac, C. J., & Antonowicz, D. H. (1994). Attitudes toward sex offenders by female undergraduate university students enrolled in a psychology program. *Social Behavior And Personality, 22*, 105-110. doi:10.2224/sbp.1994.22.2.105
- Viswesvaran, C., & Ones, D. S. (2000). Measurement error in 'Big Five factors' personality assessment: Reliability generalization across studies and measures. *Educational and Psychological Measurement, 60*, 224-235. doi:10.1177/00131640021970475
- Waiyavutti, C., Johnson, W., & Deary, I. J. (2011). Do personality scale items function differently in people with high and low IQ? *Psychological Assessment*, doi:10.1037/a0026266
- Walp, G. (2006). The missing link between pornography and rape: Convicted rapists respond with validated truth. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 66*(7-A), 2734.

- Weekes, J. R., Pelletier, G., & Beaudette, D. (1995). Correctional officers: How do they perceive sex offenders? *International Journal Of Offender Therapy And Comparative Criminology*, *39*, 55-61. doi:10.1177/0306624X9503900107
- West, S. G., Friedman, S., & Kim, K. (2011). Women accused of sex offenses: A gender-based comparison. *Behavioral Sciences & The Law*, *29*, 728-740. doi:10.1002/bsl.1007
- Willis, G. M., & Grace, R. C. (2008). The quality of community reintegration planning for child molesters: Effects on sexual recidivism. *Sexual Abuse: Journal Of Research And Treatment*, *20*, 218-240. doi:10.1177/1079063208318005
- Willis, G. M., & Grace, R. C. (2009). Assessment of community reintegration planning for sex offenders: Poor planning predicts recidivism. *Criminal Justice And Behavior*, *36*, 494-512. doi:10.1177/0093854809332874
- Willis, G. M., Levenson, J. S., & Ward, T. (2010). Desistance and attitudes towards sex offenders: Facilitation or hindrance? *Journal Of Family Violence*, *25*, 545-556. doi:10.1007/s10896-010-9314-8
- Witt, E. A., Donnellan, M., & Blonigen, D. M. (2009). Using existing self-report inventories to measure the psychopathic personality traits of fearless dominance and impulsive antisociality. *Journal Of Research In Personality*, *43*, 1006-1016. doi:10.1016/j.jrp.2009.06.010
- Wnuk, D., Chapman, J. E., & Jeglic, E. L. (2006). Development and refinement of a measure of attitudes toward sex offender treatment. *Journal Of Offender Rehabilitation*, *43*, 35-47. doi:10.1300/J076v43n03\_03
- Zaichkowsky, J. L. (1985). Measuring the involvement construct. *Journal Of Consumer Research*, *12*, 341-352. doi:10.1086/208520

Zevitz, R. G. (2006). Sex Offender Community Notification: Its Role in Recidivism and Offender Reintegration. *Criminal Justice Studies: A Critical Journal Of Crime, Law & Society*, 19, 193-208. doi:10.1080/14786010600764567

Zweigenhaft, R. L. (2008). A do re mi encore: A closer look at the personality correlates of music preferences. *Journal Of Individual Differences*, 29, 45-55. doi:10.1027/1614-0001.29.1.45

## APPENDICES

### Appendix A: Sex Offender Attitude Scale (SOAS)

1. People who were sexually abused as children will inevitably be abusers themselves.
2. If a sexually abused child grows up to be an offender then, they will offend in the same way.
3. Sex offenders shouldn't masturbate.
4. Masturbation, for sex offenders, only adds fuel to the fire.
5. Sex offenders have too much testosterone.
6. Castration is the cure for sex offenders.
7. A sex offender is destined to re-offend regardless of how much treatment they have.
8. Sex offenders can't be cured.
9. Sex offenders always lie to stay out of treatment.
10. Sex offenders do not want to stop offending.
11. Sex offenders are sex maniacs.
12. Anyone who commits a sex crime is simply too horny.
13. Sex offenders just need a willing partner who will have sex with them more.
14. All sex crimes are purely for the sex.
15. As long as sex offenders are under surveillance, they will not commit any more offences.
16. Sex offenders are all the same.
17. Once a sex offender, always a sex offender.

## Appendix B: Sex Offender Attitude Scale Short (SOAS-S)

4. Masturbation, for sex offenders, only adds fuel to the fire.
7. A sex offender is destined to re-offend regardless of how much treatment they have.
8. Sex offenders can't be cured.
9. Sex offenders always lie to stay out of treatment.
10. Sex offenders do not want to stop offending.
11. Sex offenders are sex maniacs.
12. Anyone who commits a sex crime is simply too horny.
16. Sex offenders are all the same.
17. Once a sex offender, always a sex offender.

## Appendix C: Demographics

### Sex:

- 1- Male
- 2- Female

### Race/Ethnicity:

- 1 Black/African American
- 2 White/Caucasian
- 3 Hispanic
- 4 Biracial
- 5 Multiracial
- 6 Middle Eastern
- 7 Native American Indian
- 8 African
- 9 European
- 10 Other

### Estimated Annual Income:

- 1 Below \$20,000
- 2 \$20,000 - \$40,000
- 3 \$40,000 - \$60,000
- 4 \$60,000 - \$80,000
- 5 \$80,000 - \$100,000
- 6 \$100,000+

### Marital Status:

- 1 Single (never married, not dating steady/monogamously)
- 2 Dating Steady/Monogamously
- 3 Married
- 4 Married, but Separated
- 5 Divorced
- 6 Widowed

### Sex Offense Hx:

- Do you know anyone who is a sex offender? 1 Yes 2 No
- Have you ever been a victim of a sex offense? 1 Yes 2 No
- Have you ever committed a sex offense? 1 Yes 2 No
- Do you know anyone who has been the victim of a sex offense? 1 Yes 2 No

## Appendix D: NEO – Big 5

1. I am not a worrier
2. I like to have a lot of people around me.
3. I don't like to waste my time daydreaming.
4. I try to be courteous to everyone I meet.
5. I keep my belongings neat and clean.
6. I often feel inferior to others.
7. I laugh easily.
8. Once I find the right way to do something, I stick to it.
9. I often get into arguments with my family and co-workers.
10. I am pretty good about pacing myself to get things done one time.
11. When I'm under a great deal of stress, I feel like I am going to pieces.
12. I don't consider myself "light-hearted".
13. I am intrigued by the patterns I find in art and nature.
14. Some people think I am selfish and egotistical.
15. I am not a very methodological person.
16. I rarely feel lonely or blue.
17. I really enjoy talking to people
18. Letting students hear controversial speakers can only lead to confusion and mislead them.
19. I would rather co-operate with others than compete with them.
20. I try to perform all tasks assigned to me, conscientiously.
21. I often feel tense or jittery.
22. I like to be where the action is.
23. Poetry has little or no effect on me.
24. I tend to be cynical and skeptical of others' interests.
25. I have a clear set of goals and work toward them in an orderly fashion.
26. Sometimes I feel completely worthless.
27. I usually prefer to do things alone.
28. I often try new foreign foods.
29. I believe that most people will take advantage of you if you let them.
30. I waste a lot of time before settling down to work.
31. I rarely feel fearful or anxious.
32. I often feel as if I am bursting with energy.
33. I seldom notice the moods or feelings that different environments produce.
34. Most people I know like me.
35. I work hard to accomplish my goals.
36. I often get angry at the way people treat me.
37. I am a cheerful, high-spirited person.
38. I believe we should look to our religious authorities for decisions on moral issues.
39. Some people think of me as cold and calculating.
40. When I make a commitment I can always be counted on to follow through.
41. Too often when things go wrong, I get discouraged and feel like giving up.
42. I am not a cheerful optimist.
43. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.

44. I am hard-headed and tough-minded in my attitudes.
45. Sometimes I am not as dependable or reliable as I should be.
46. I am seldom depressed.
47. My life is fast paced.
48. I have little interest in speculating on the universe or human condition.
49. I generally try to be thoughtful and considerate.
50. I am a productive person who always gets the job done.
51. I often feel helpless and want someone to solve my problems.
52. I am a very active person.
53. I have a lot of intellectual curiosity.
54. If I don't like people, I let them know it.
55. I never seem to be able to get organized.
56. At times I have been so ashamed I just want to hide.
57. I would rather go my own way than be a leader of others.
58. I often enjoy playing with theories or abstract ideas.
59. If necessary, I am willing to manipulate people to get what I want.
60. I strive for excellence in everything I do.

## Appendix E: Empathy

1. I feel others' emotions.
2. I anticipate the needs of others.
3. I reassure others.
4. I make others feel good.
5. I am concerned about others.
6. I have a good word for everyone.
7. I make people feel welcome.
8. I take time out for others.

## Appendix F: Tolerance

1. I accept people as they are.
2. I respect others.
3. I sympathize with the homeless.
4. I believe there are many sides to most issues.
5. I believe that others have good intentions.
6. I can accept a lot from others.
7. I am a bad loser.
8. I get irritated easily.
9. I lay down the law to others.
10. I treat others as inferiors.
11. I am quick to judge others.
12. I am annoyed by others' mistakes.

## Appendix G: Forgiveness

1. I love my enemies.
2. I try to forgive and forget.
3. I am inclined to forgive others.
4. I am nice to people I should be angry at.
5. I find it hard to forgive others.
6. I hold a grudge.
7. I get back at people who insult me.
8. I get even with others.
9. I distrust people.
10. Feel that most people can't be trusted.

## Appendix H: Attitude Scale for Mental Illness

1. People with mental illness have unpredictable behavior.
2. If people become mentally ill once, they will easily become ill again.
3. If a mental health facility is set up in my street or community, I will move out of the community.
4. Even after a person with mental illness is treated, I would still be afraid to be around them.
5. Mental patients and other patients should not be treated in the same hospital.
6. When a spouse is mentally ill, the law should allow for the other spouse to file for divorce.
7. People with mental illness tend to be violent.
8. People with mental illness are dangerous.
9. People with mental illness should be feared.
10. It is easy to identify those who have a mental illness.
11. You can easily tell who has a mental illness by the characteristics of their behavior.
12. People with mental illness have a lower I.Q.
13. All people with mental illness have some strange behavior.
14. It is not appropriate for a person with mental illness to get married.
15. Those who have a mental illness cannot fully recover.
16. Those who are mentally ill should not have children.
17. There is no future for people with mental illness.
18. People with mental illness can hold a job.
19. The care and support of family and friends can help people with mental illness to get rehabilitated.
20. Corporations and the community (including the government) should offer jobs to people with mental illness.
21. After a person is treated for mental illness they can return to their former job position.
22. The best way to help those with a mental illness to recover is to let them stay in the community and live a normal life.
23. After people with mental illness are treated and rehabilitated, we still should not make friends with them.
24. After people with mental illness are treated, they are still more dangerous than normal people.
25. It is possible for everyone to have a mental illness.
26. We should not laugh at the mentally ill even though they act strangely.
27. It is harder for those who have a mental illness to receive the same pay for the same job.
28. After treatment it will be difficult for the mentally ill to return to the community.
29. People are prejudiced towards those with mental illness.
30. It is hard to have good friends if you have a mental illness.
31. It is seldom for people who are successful at work to have a mental illness.
32. It is shameful to have a mental illness.
33. Mental illness is a punishment for doing some bad things.
34. I suggest that those who have a mental illness do not tell anyone about their illness.

## Appendix I: Cognitive Failures

1. Get confused easily.
2. Often forget things.
3. Let my attention wander off.
4. Spill things.
5. Have difficulty keeping things in mind.
6. Can't make up my mind.
7. Like to take responsibility for making decisions.
8. Always know why I do things.
9. Remain calm under pressure.
10. Pay attention to details.

## Appendix J: Childhood Trauma Questionnaire

1. I didn't have enough to eat.
2. I knew that there was someone to take care of me and protect me.
3. People in my family called me things like "stupid," "lazy," or "ugly."
4. My parents were too drunk or high to take care of the family.
5. There was someone in my family who helped me feel that I was important or special.
6. I had to wear dirty clothes.
7. I felt loved.
8. I thought that my parents wished I had never been born.
9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.
10. There was nothing I wanted to change about my family.
11. People in my family hit me so hard that it left me with bruises or marks.
12. I was punished with a belt, a board, a cord, or some other hard object.
13. People in my family looked out for each other.
14. People in my family said hurtful or insulting things to me.
15. I believe that I was physically abused.
16. I had the perfect childhood.
17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.
18. I felt that someone in my family hated me.
19. People in my family felt close to each other.
20. Someone tried to touch me in a sexual way or tried to make me touch them.
21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them.
22. I had the best family in the world.
23. Someone tried to make me do sexual things or watch sexual things.
24. Someone molested me.
25. I believe I was emotionally abused.
26. There was someone to take me to the doctor if I needed it.
27. I believe that I was sexually abused.
28. My family was a source of strength and support.

## VITA

BRANDON C. BOGLE

- Personal Data:                   Date of Birth: January 10, 1976  
  Place of Birth: Nashville, Tennessee  
  Marital Status: Married
- Education:                        Public Schools, Kingsport, Tennessee  
  A.S. Psychology, Northeast State Community College,  
  Blountville, Tennessee 2004  
  B.S. Psychology, East Tennessee State University,  
  Johnson City, Tennessee 2007  
  M.A. Psychology, East Tennessee State University,  
  Johnson City, Tennessee 2009  
  Ph.D. Clinical Psychology, East Tennessee State University,  
  Johnson City, Tennessee 2012
- Professional Experience:       Graduate Assistant, East Tennessee State University,  
  College of Arts and Sciences, 2007 – 2009  
  Summer Instructor, Ronald McNair Post-  
  Baccalaureate Internship, 2008 - 2011  
  Externship, Friends in Need Health Center,  
  Kingsport, Tennessee, 2009 - 2010  
  Externship, Cherokee Health Systems  
  Morristown, Tennessee, 2010 - 2011  
  Predoctoral Internship, Stone Mountain Health  
  Services, Pennington Gap, Virginia, 2011 – 2012
- Publication:                       Bogle, B., Chumney, F., & Dula, C. (2006). Development of  
  the Sex Offender Attitude Scale. *Proceedings of The  
  National Conference On Undergraduate Research.*  
  University of North Carolina at Asheville.