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Characterizing Trauma in a Community Sample : How Trauma Symptoms are Related to Problem Behaviors

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Thesis Signature Page

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Characterizing Trauma in a Community Sample: How Trauma Symptoms are Related to Problem Behaviors

by

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CHARACTERIZING TRAUMA IN A COMMUNITY SAMPLE: HOW TRAUMA SYMPTOMS ARE RELATED TO PROBLEM BEHAVIORS

A THESIS

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Abstract

Exposure to trauma can lead to an array of maladaptive behaviors and an extensive range of physical, emotional, and psychological difficulties. In fact, researchers have linked trauma to the development of debilitating symptoms such as anxiety (Suliman et al., 2009), psychiatric disorders such as schizophrenia (Read, van Os, Morrison, & Ross, 2005) and risky behaviors such as substance abuse (Danielson et al., 2009). Unfortunately, studies examining the consequences of trauma often do so using clinical samples, limiting the generalizability of those results. Thus, the current study sought to characterize trauma in a community sample. Data analyzed for the present study was derived from a larger study assessing psychological functioning across the lifespan. Participants included 143 adult men and women ages 18 to 58-years old. Consistent with the hypothesis, significant results revealed that participants diagnosed with a psychiatric disorder had higher trauma scores than participants without a psychiatric disorder. Moreover, participants with higher trauma scores were significantly more likely to report greater levels of depressive symptomatology, internalizing problems and externalizing problems. Interestingly, higher trauma scores were also associated with heavy drinking but were not associated with illicit drug use or risky sexual activities.

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Trauma can have devastating lifelong effects including anxiety, depression, dissociation, personality disorders, and substance abuse (Yehuda, Hallugan, & Bierer, 2001). Although trauma has wide ranging effects, most research examining the impact of trauma on mental health focuses on the subsequent development of posttraumatic stress disorder (PTSD) as this is one of the most prevalent and debilitating outcomes associated with trauma (Koss, Bailey, Yuan, Herrera, & Lichter, 2003). While traumatic experiences increase an individual's risk for developing PTSD, exposure to trauma also increases the risk for other issues such as problem behaviors (Roustit et al., 2009) that are associated with other negative outcomes such as depression and substance use disorders (Waller et al., 2006). Focusing exclusively on PTSD overlooks many people who may not meet criteria for this disorder but engage in equally detrimental maladaptive behaviors following exposure to trauma that contribute to lifelong mental health problems.

Furthermore, much research on trauma focuses on the characterization of trauma in clinical populations (e.g., war veterans and survivors of childhood maltreatment; Wekerle, Miller, & Wolfe, 2006). While useful, this method fails to examine the existence of trauma and trauma-related symptomatology in nonclinical populations which is needed for understanding the full range of trauma-related reactions (Cicchetti & Toth, 2005). Researchers have found that although individuals may not meet criteria for a clinical diagnosis, they still may exhibit significant symptoms (Smith et al., 2009). Thus, it is important to examine trauma-related symptoms in community samples.

Defining trauma, traumatic events, and post-traumatic responses

In recent years the word *trauma* has become an all-encompassing term that is casually thrown around and used lightly to describe events that are glaringly less distressing than the events originally associated with the word (Papadopoulos, 2002, p. 26). As a result, the term is not only subject to frequent misuse but its once impactful connotation has become increasingly muddied and vague. This fact is evident, for example, in the following statement[1]: "Yesterday was full of trauma, I lost my favorite necklace and someone at work ate my lunch out of the department refrigerator." While unfortunate and disappointing, the experiences described in the previous statement are not examples of trauma; in fact, they are a far cry from even the most rudimentary definition of the term. Meriam-Webster's dictionary defines trauma as (Trauma, 2012):

1. An injury to living tissue caused by an extrinsic agent; 2. A disordered psychic or behavioral state resulting from severe mental or emotional stress of physical injury; and 3. An emotional upset.

More clinically apt, the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition, Text Revision (American Psychiatric Association, 2000, p. 463) defines trauma as:

> A direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate.

[1]This is a fictional statement that was devised by the author of this thesis for illustrative purposes.

More specifically, traumatic events include a wide range of incidents, among others, robbery, being kidnapped, terrorist attacks, child abuse, being a victim of a physical or sexual assault, experiencing a natural disaster, and witnessing the injury or death of a loved one (American Psychiatric Association, 2000; First, Spitzer, Gibbon, & Williams, 1997). Referring to the stress-inducing event and the resulting post-traumatic reaction, responses to and the symptomatology of trauma can vary widely. An individual's coping style, previous experiences and perception of the traumatic event can all contribute to an individual's post-traumatic response. In fact, researchers have found that perception of trauma is affected by mental state (McNally, 2003). That is, individuals who have more stress reactions tend to report higher severity of their trauma whereas individuals with fewer stress reactions tend to report lower severity of similar traumatic events (McNally, 2003). Nonetheless there are several psychological reactions that are common among individuals who have experienced trauma regardless of their mental state. Those reactions include anxiety, hyper-vigilance, sleep disturbance, intrusive memories, guilt, withdrawal, mental and/or behavioral avoidance, irritability, anger and sadness (Regel & Joseph, 2010).

Who experiences trauma?

Traumatic events are experienced by a majority (56%) of the general population (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). These traumatic events occur on parity with some of the most prevalent and serious health problems, including cancer. One in every eight women will develop breast cancer during her lifetime (American Cancer Society, 2012); four in every eight women will experience trauma at least once (U.S. Department of Veterans Affairs, 2007). One in every six men will be diagnosed with prostate cancer (American Cancer Society, 2012);

nearly four in six men will experience at least one traumatic event in their lifetime (U.S. Department of Veterans Affairs, 2007). Moreover, nearly 17% of men and 13% of women will experience multiple traumatic events during their lifetime (PTSD Alliance, 2001).

Unfortunately, trauma is not restricted to adults. One in four children will experience at least one traumatic event before their 16th birthday (Costello, Erkanli, Fairbank, & Angold, 2002). While an estimated 26% of children report experiencing physical abuse and more than 8% report being sexually abuse, 6% report experiencing both forms of abuse (Chartier, Walker, & Naimark, 2007). Retrospective studies have found that nearly 8% of men and 20% of women report being sexually abused as children (Pereda, Guilera, Forns, & Gomez-Benito, 2009). Moreover, an estimated 60.6% of children have directly experienced or witnessed victimization at least once within the past year (Finkelhor, Turner, Ormrod, & Hamby, 2009).

Posttraumatic Stress Disorder and Trauma

Posttraumatic Stress Disorder is a debilitating psychopathological response that is triggered by a traumatic event. In fact, trauma and PTSD symptomatology have a positive relationship; PTSD symptoms tend to increase as the number of traumatic experiences increase (Najdowski & Ullman, 2009). Like all anxiety disorders, PTSD is characterized by inappropriate arousal and feelings of fear and hesitation (APA, 2000). The diagnostic criteria for PTSD consists of 17 specific symptoms that are grouped into three clusters: avoidance and numbing (e.g., avoidance of stimuli associated with the trauma), re-experiencing of the event (e.g., distressing recollections of the event) and hyperarousal (e.g., disturbances in concentration) (APA, 2000). Although more than half of the population will experience at least one traumatic

event in their lifetime, only an estimated 8% of the general population will develop PSTD (APA, 2000; Kessler et al., 1995). Researchers have identified several traits (e.g., effective coping skills and positive social support) that are negatively associated with PTSD and thus, place individuals at a lower risk for developing the PTSD symptomatology (Bonanno, 2005). On the other hand, research has also consistently found specific populations to be more at-risk for developing PTSD. Those populations include those exposed to the most serious types of trauma, including childhood maltreatment and abuse (Kearney, Wechsler, Kaur, & Lemos-Miller, 2010), war veterans (Eisen et al., 2004), rape survivors (Coker, Weston, Creson, Justice, & Blakeney, 2005) and individuals who have experienced devastating disasters (Galea, Nandi, &Vlahov, 2005).

Childhood maltreatment

Child abuse and maltreatment cases are no doubt some of the most unimaginable, heartbreaking, and heinous crimes committed. Statistics show that an estimated 5.9 million children were involved in reported cases of child abuse and neglect made in 2010 alone (U.S. Department of Health and Human Services, 2010). Moreover, an estimated five children die as a result of child abuse every single day (U.S. Department of Health and Human Services, 2007); nearly 80% of those fatalities are children under age 4 (U.S. Department of Health and Human Services, 2010). With such a high rate of child maltreatment in this country, one cannot help but wonder what happens to the children that make it out of such neglectful, violent, and depriving environments alive.

Chronic maltreatment is frequent victimization that is associated with a host of negative outcomes including anxiety disorders (e.g., PTSD, Panic Disorder and Generalized Anxiety

Disorder) as well as suicide attempts and completed suicides (Dube et al., 2005; Klomek, et al., 2009; Sourander et al., 2007). Not only have researchers found childhood maltreatment and abuse to be predictors of adulthood PSTD (Grass-Oliveria & Stein, 2008) but the lifetime rate of PTSD in adult women who experienced childhood sexual abuse is three times higher than that of women who were not abused (Saunders, Kilpatrick, Hanson, Resnick, & Walker, 1999).

In a cross-sectional study of 115 Brazilian adults who were abused or neglected as children, researchers found that above all forms of childhood maltreatment, child sexual abuse, childhood emotional abuse and childhood emotional neglect accounted for the largest proportion of the reported PTSD symptoms (Grass-Oliveria et al., 2008). While the previous article examined the effects of a single form of abuse or neglect in a clinical population, much of the current interest is in multi-type maltreatment. This interest stems from the findings that, in many cases, children are not experiencing just one form of abuse; instead children frequently experience several forms of abuse simultaneously (Herrenkohl & Herrenkohl, 2009).

Higgins and McCabe (2000) examined the prevalence of multi-type maltreatment in a community sample and found that 43% of adults had been exposed to two or more forms of maltreatment. Co-occurrence of abuse as well as the fact that the majority of abuse goes on behind closed doors makes it extremely difficult to identify where the effects of one form of abuse stop and another begins. To this end, rather than attempting to tease out the effects of a specific form of abuse, current research has shifted the focus to examining possible additive and interactive effects of multi-type abuse (Clemmons, DiLillo, Martinez, DeGue, & Jeffcott, 2003; Finkelhor, Ormrod, & Turner, 2007).

Multi-type maltreatment is associated with greater maladjustment than single type maltreatment (Arata et al., 2005). In fact, Roth et al. (1997) found that in a mixed sample of clinical and community participants, both physical abuse and sexual abuse were risk factors for complex PTSD in adult women. However, when sexual abuse was co-occurring with physical abuse, the association was even stronger. Individuals who were both sexually and physically abused as children were more likely to report symptoms of PTSD than those individuals who suffered a single form of abuse- either sexual abuse or physical abuse alone (Roth et al., 1997). Vranceanu, Hobfoll, and Johnson (2007) studied the effects of child multi-type maltreatment in a sample of 100 inner-city, low-income women. They found that most of the women in their sample reported being exposed to multiple forms of abuse; physical abuse and neglect was the most commonly reported combination of multi-type maltreatment. Similar to Roth's findings, Vranceanu and colleagues also found child multi-type maltreatment to be a predicator of PTSD.

Other studies have reviewed (e.g., Higgins & McCabe, 2001) and even extended on the current literature by examining the effects of multi-type abuse on adult adjustment in minority populations (Clemmons et al., 2003). All four studies came to the same conclusion: individuals who were exposed to more than one form of maltreatment in childhood consistently report greater trauma symptomatology than those individuals who report being exposed to a single form of childhood maltreatment as well as those individuals who were not maltreated at all. Hence, these findings support the belief that exposure to multi-type maltreatment produces an additive traumatic effect.

Little research has explored the impact of sexual trauma by comparing the psychological functioning of childhood sexual abuse survivors to individuals who only experienced sexual trauma in adulthood. One study did find that women who experienced sexual abuse in childhood alone reported higher levels of distress than women who experienced assault (sexual or physical abuse) in adulthood only (Messman-Moore, Long, & Siegfried, 2000). Moreover, childhood sexual abuse survivors also reported higher levels of anxiety, somatization, interpersonal sensitivity and depression than adulthood abuse survivors. These findings further highlight the enduring effects of childhood abuse and maltreatment.

Exposure to War

Exposure to warfare can have a severe traumatic impact on soldiers and civilians alike. For this reason, the relationship between war and PTSD symptomatology has been studied thoroughly and the results of these studies have consistently found higher levels of PTSD in war veterans (De Albuquerque, Soares, De Jesus, & Alves, 2003; Hoge, Auchterlonie, & Miliken, 2006; Seal, Metzler, Gima, Bertenthal, Maguen, & Marmar, 2009). Even more, researchers have found variation among fellow soldiers. Active duty veterans younger than 25-years-old develop PTSD at a significantly higher rate than active duty veterans older than 40 years (Seal et al. 2009). Additionally, Koren et al. (2005) found that United States Army soldiers who experienced combat-related injuries were much more likely than uninjured soldiers to meet criteria for a PTSD diagnosis. Nearly 17% of injured soldiers met diagnostic criteria for a diagnosis of PTSD yet only 2.5% of uninjured soldiers met the same criteria. Moreover, injured soldiers scored significantly higher than uninjured soldiers on measures of depression, anxiety, dissociation, and PTSD symptomatology.

Similar effects have been found in refugee and civilian populations. Specifically, Turner et al. (2003) examined the prevalence of anxiety and PTSD in a sample of 842 adult war refugees using self-report measures such as the Beck Anxiety Inventory and the Post-traumatic Diagnostic Scale. They found that nearly 57% of their sample met or surpassed threshold scores for anxiety and 65% of their sample met criteria for a probable PTSD diagnosis. This is more than 8 times the prevalence rate of PTSD in the general population. Cardozo et al. (2004) had similar findings when they investigated symptoms of depression, anxiety and PTSD in postwar Afghanistan. In their sample of 799 civilian participants, 72.2% reported symptoms of anxiety, 67.7% reported symptoms of depression, and 42.1% reported symptoms of PTSD.

Disasters

Disasters such as hurricanes and earthquakes can devastate entire cities, uproot families and produce major destruction and trauma (Neria, Nandi, & Galea, 2008). Dogan (2011) examined PTSD symptoms and behavior problems in a sample of 695 adolescents from Golcuk, the epicenter of the 1999 Marmara earthquake in Turkey. More than 75% of the adolescents reported moderate to severe levels of PTSD following the earthquake. In addition, many of the adolescents reported an increase in behavioral problems- 79% reported a rise in feelings of restless behavior and having a strong temper. Even more, adolescents who resided in the areas hit hardest by the earthquake reported more symptoms than those who resided in medium and low impact areas.

High rates of PTSD diagnoses were also found in Gulf Coast residents following the devastation of Hurricane Katrina in 2005 (Coon, Tucker, Pfefferbaum, & Holmes, 2011). As a

result of Hurricane Katrina many residents experienced numerous traumatic events and were forced to evacuate their place of residence; two factors that significantly increase the risk for development of PTSD symptoms (Weems et al., 2007). While an estimated 31% of Hurricane Katrina survivors reported symptoms consistent with a mood or anxiety disorder, only an estimated 32% of those with evidence of a psychological disturbance had received mental health treatment in the eight months following the hurricane (Wang et al., 2007). Even worse, the development of trauma symptomatology following a traumatic event is often times delayed. To this fact, Paxson, Fussel, Rhodes, & Waters (2012) found that 19% of Hurricane Katrina survivors reported hurricane-related posttraumatic stress symptoms three years after the Hurricane although they had not done so during the initial post-hurricane interview 7 to 19 months following the disaster.

Survivors of rape and other interpersonal traumas

Interpersonal traumas such as rape and domestic violence can have devastating long-lasting effects including physical and mental health disturbances as well as functional impairments (Kilpatrick, Amstadter, Resnick, & Ruggiero, 2007). Intimate partner violence (IPV) describes four subset behaviors: physical violence, sexual violence, threats and emotional abuse that can occur between current or former intimate partners (Center for Disease Control, 2012). Researchers have consistently found a significant relationship between IPV and PTSD symptoms in battered women (Coker et al., 2005; Saunders, 1994). In a sample of 132 adult women who had experienced at least one episode of intimate partner violence in the previous year, researchers found frequent violence and past victimization to be associated with PTSD

severity (Lilly & Graham-Berman, 2009). Additionally, along with frequency, severity of the IPV was also associated with PTSD severity (Johnson, Zlotnick, & Perez, 2008).

Rape, whether the assailant is an imitate partner or stranger, has also been linked to posttraumatic stress. In fact, researchers have found that 45% of female rape survivors would meet criteria for a probable PTSD diagnosis 3 months following the sexual assault (Elklit & Christiansen, 2010). Even more, women who acknowledge and label their sexual assault as such are more likely to meet criteria for a PTSD diagnosis than those women who do not acknowledge their experience as a sexual assault although it meets the legal definition of rape (Littleton & Henderson, 2009). This finding may suggest that denial or downplaying of rape is an effective coping mechanism for some rape survivors. As such, it supports Bonanno's findings that effective coping skills place traumatized individuals at a decreased risk of developing symptoms associated with PTSD (Bonnanno, 2005).

While an overwhelming percentage of the current literature examining PTSD's association with exposure to rape and IPV focuses on female survivors, males with a history of sexual assault or IPV also display higher levels of posttraumatic stress (Coker et al., 2005; Hines &Douglas, 2011). Specifically, male survivors of rape exhibit higher levels of psychological disturbance, anxiety and insomnia when compared with matched controls (Walker, Archer, & Davies, 2005). Furthermore, experiencing IPV is associated with higher levels of re-experiencing, avoidance and hyperarousal in men (Hines et al., 2011).

PTSD is one of the two most common psychological responses among trauma survivors; the second is depression (Koss et al., 2003).

Depression and Trauma

Major Depressive Disorder (MDD) is a mood disorder characterized by sleep disturbances, diminished interest or pleasure, significant changes in weight or appetite, and loss of energy or fatigue (APA, 2000). A diagnosis of MDD requires an episode of depressed mood most of the day, nearly every day for a minimum of 2 weeks. Like all clinical disorders, this change in mood must interfere with previous functioning in order to be diagnosable (APA, 2010). MDD shares several symptoms with PTSD including disturbances in sleep, diminished concentration, and anhedonia so it is no surprise that PTSD is often co-morbid with MDD (Franklin & Zimmerman, 2001). In fact, researchers have found that PTSD and depression are often correlated in abused populations (Cascardi, O'Leary, & Schlee, 1999). While correlated, PTSD and MDD remain separate disorders. Similar to PTSD, researchers have identified several populations that have an increased risk for developing depression. Those populations include survivors of interpersonal traumas (Walker et al., 2005) and survivors of child maltreatment (Spataro, Mullen, Burgess, Wells, & Moss, 2004).

Rape and other interpersonal traumas

Sexual victimization is a predictor of subsequent psychopathology and survivors of interpersonal traumas often display poor psychological functioning even years after the assault (Hedtke et al., 2008; Koss, Herrera, & Lichter, 2003). These findings have been replicated in both male and female populations (Afifi et al., 2009; Walker et al., 2005). Notably, Choudhary,

Smith, and Bossarte (2011) examined the impact of sexual violence on mental health in a sample of over 60,000 adult men and women. More than 5% of their sample reported being victims of sexual violence and nearly 19% of those individuals had a clinical diagnosis of depression. Not only was depression more prevalent in individuals who had been sexually assaulted, but survivors of sexual violence also reported more feelings of self-blame for personal failures. Similarly, researchers have found that survivors of IPV have an increased risk for developing severe depressive symptoms as well (Bonomi et al., 2006).

Child abuse and maltreatment

Child abuse and maltreatment are predictors of many psychological disorders including depression (Lee, Cronley, White, Mun, Stouthamer-Loeber, & Loeber, 2012). In fact, men and women with a history of childhood sexual abuse, physical abuse and/or exposure to domestic violence are more likely to be depressed than individuals who were not maltreated as children (Fergusson, Boden, & Horwood, 2008; Meston, Rellini, & Heiman, 2006; Roustit, et al., 2009; Spataro, et al., 2004). In a sample of over 4,000 adult women, Saunders et al. (1999) found that childhood sexual abuse survivors were three times more likely to report symptoms of depression than women who were not sexually abused as children. Even more, the depressive symptoms that stem from childhood sexual abuse often contribute to a subsequent negative sexual affect (Meston, et al., 2006). This is especially concerning because survivors of childhood sexual abuse often show signs of sexual anxiety and diminished sexuality as well (Simon & Feiring, 2008). Thus, the guardedness that is characteristic of negative sexual affect may further hinder the development and maintenance of intimate relationships.

Although childhood physical abuse is often associated with subsequent externalizing behaviors such as aggression (Lansford et al., 2007), it also predicts subsequent internalizing behaviors including depression (Fergusson et al., 2008). In fact, depression partially mediates the relationship between childhood physical abuse and aggressiveness (Scarpa, Haden, & Abercromby, 2010). Expectedly, frequent exposure to domestic abuse is also a risk factor for subsequent depression, an effect that remains significant even when controlling for exposure to childhood physical and sexual abuse (Russell, Springer, & Greenfield, 2010). Moreover, earlier onset of maltreatment (prior to age 6) as opposed to later onset (after age 6), is significantly predictive of elevated levels of depressive symptoms in adulthood (Kaplow & Widom, 2007).

Problem and Risky Behaviors and Trauma

Engaging in risky behaviors is often a function of personality that stems from a pursuit of positive affect or an avoidance of negative outcomes (Cooper, Agocha, & Sheldon, 2000). As such, problem and risky behaviors have been linked to personality traits such as neuroticism and extraversion (Cooper et al., 2000). Problem behaviors are often thought of as a composite of two independent clusters of symptoms- externalizing and internalizing behaviors. Externalizing behaviors describe behaviors that are extroverted (i.e. aggressiveness; Achenbach & Rescorla, 2003). Conversely, internalizing behaviors are those that are introverted (i.e. depressive mood). While the two domains are considered separate phenomena, researchers have consistently found externalizing and internalizing problem behaviors to co-occur (Eisenberg et al., 2009; Pesenti-Gritti et al., 2008). Further, there is mounting evidence that suggests that impulsivity also influences problem behaviors - previous research has found externalizing behaviors to be

associated with high impulsivity while internalizing problems are associated with low impulsivity (Eisenberg et al., 2009).

Like problem behaviors, many studies have thoroughly examined the nature of risky behaviors. Several findings suggest that the cognitive development (e.g., improved reasoning skills and greater processing speed) that occurs throughout childhood and adolescence decreases the likelihood of engaging in risky behaviors as an adult (Boyer, 2006). Even so, many adults consistently engage in risky behaviors, a tendency that may be driven by sensation seeking and impulsivity (Hoyle, Fejfar, & Miller, 2000). Researchers have identified a wide range of risky behaviors including illicit drug use, risky sexual activities, heavy drinking, aggressive and illegal behaviors and participation in high risk sports (Fromme, Katz, Rivet, 1997). For the purposes of this paper, the discussion of risky behaviors will be limited to substance abuse and risky sexual behaviors.

Substance abuse

Research has consistently found elevated levels of substance use and abuse in maltreated populations (Roustit et al., 2009). Specifically, Saunders et al. (1999) found that survivors of childhood sexual abuse are more likely than their non-maltreated counterparts to unwarrantedly take prescription medications and use illicit drugs (e.g., marijuana and cocaine). Additionally, survivors of childhood sexual abuse are also more likely to meet criteria for a diagnosis of both current and lifetime alcohol abuse. This may stem from the fact that maltreated individuals tend to experiment with drugs and alcohol at an earlier age than those individuals who were not maltreated as children (Saunders et al., 1999). Interestingly, adults who were sexually abused as

children have a 40% increased risk of marrying an alcoholic (Dube et al., 2005). This finding may indicate maltreated individuals' propensity for making poor choices.

Although substance abuse is often labeled as a coping strategy (Shipherd, Stafford, & Tanner, 2005), it has the potential to result in a wide range of maladaptive responses (Brady & Sinha, 2005). In fact, alcohol and illicit drug usage are often associated with violent events (Boles & Miotto, 2001), a fact that is not surprising since researchers have consistently found an association between alcohol consumption and increased aggressive behavior (Giancola et al., 2009; Well, Graham, & West, 2000). To this point, Busch and Rosenberg (2004) examined substance abuse in a sample of 90 men and women arrested for domestic violence. They found that 60% of women and 78% of men were suspected of using drugs or alcohol when they were arrested. Similarly, Stuart et al. (2006) found that cigarette smokers reported higher levels of intimate partner violence than nonsmokers.

Substance use is also associated with an increased risk for road trauma (Movig et al., 2004). Specifically, chronic reckless drivers are more likely to be diagnosed with cocaine and amphetamine use disorders than individuals who do not drive recklessly (Vaughn et al. 2010). Also examining the effects of substance use, Impinen et al. (2010) used a register of all DUI arrests in Finland between 1988 and 2006 to examine the mortality rates of DUI arrestees. They found that individuals with a history of DUI arrests had higher mortality rates than individuals without a previous DUI arrest; this includes deaths due to a range of factors including violence, suicides and traffic accidents. This finding may be due in part to high rates of recidivism among DUI offenders (Marowitz, 1998).

Even more, substance abuse disorders are often co-morbid with PTSD (Breslau, Davis, & Schultz, 2003). In fact, while examining the link between drug and alcohol use and PTSD symptoms in Persian Gulf War veterans, Shipherd et al. (2005) found that symptoms of PTSD predicted subsequent drug use; an effect that remained significant after controlling for prior drug use. Researchers have also found PTSD and substance abuse to be associated with symptoms of psychosis. Specifically, a PTSD diagnosis in war veterans coupled with drug and alcohol abuse increases the likelihood of endorsing suicidal ideations 5.7 times more than a diagnosis of PTSD alone (Jakupcaket al., 2009).

Risky Sexual Behaviors

Researchers have found that exposure to trauma increases the risk for engaging in risky sexual behaviors (Green et al., 2005). Child maltreatment and abuse is one form of trauma that has been extensively researched. Women with a history of childhood sexual abuse are more likely to subsequently engage in risky sexual behaviors including having sexual intercourse with multiple partners, engaging in sexual intercourse for money and having sexual intercourse before the age of 15 (Hahm et al., 2010). Unfortunately, engaging in such risky sexual behaviors increases the likelihood of developing depressive symptoms (Waller et al., 2006). In essence, childhood maltreatment places individuals at an increased risk for engaging in risky behaviors and engaging in risky behaviors places maltreated individuals at an increased risk for developing depression; a risk that is already exponentially higher in maltreated populations.

Engaging in risky sexual behaviors also increases individuals' vulnerability for negative health outcomes (Spialnick et al. 2007). Sturdevant et al. (2001) examined the prevalence of

risky sexual behaviors in a sample of 243 female participants with and without a diagnosis of HIV. They found that a positive HIV status was associated with a greater number of sexual partners and earlier initiation of sexual intercourse. Unfortunately, a positive HIV status does not always deter risky sexual behaviors. Aidala, Lee, Garbers, & Chiasson (2006) found that 31% of men and 36% of women infected with HIV reported having unprotected sex with someone who was not HIV positive or whose HIV status was unknown. Similar results were found in a study examining risky sexual behaviors and pregnancy. Pregnant adolescents revealed an ongoing propensity for engaging in several risky sexual behaviors- 21.5% of the adolescents tested positive for an STD, 14.7% reported using marijuana and 66% reported having unprotected sex in the 30 days preceding the study (Crosby, DiClemente, Wingood, Rose, & Lang, 2003).

The preceding research has shown that exposure to traumatic events is not only associated with anxiety disorders and depression, but high risk behaviors as well. Collectively these studies suggest that survivors of trauma have an increased risk of engaging in risky and problem behaviors that may in turn increase their vulnerability to experiencing adverse mental health outcomes and further traumatization. In fact, problem behaviors are often seen in those exposed to trauma regardless of a psychiatric diagnosis. While researchers have extensively examined the relationship trauma has with depression and anxiety disorders (e.g., PTSD) in clinical samples (Elklit et al., 2010; Hoge et al., 2006), further investigation of those findings in community samples is needed to examine whether these associations will remain significant in a population characterized by lower levels of trauma. Thus, the current study attempts to expand on the current literature by examining the characteristics of trauma in a community sample.

Current Study

Hypotheses

We hypothesize that individuals with a psychiatric diagnosis will have higher trauma scores than those without a psychiatric diagnosis. In line with the current literature (Heim et al., 2009; Hovens et al., 2010; Suliman et al., 2009), we further hypothesize that individuals with higher trauma scores will report higher levels of internalizing behavior, including symptoms of depression and anxiety. Additionally, we hypothesize that participants with higher trauma scores will report more externalizing behavior, particularly pertaining to risky and problem behaviors, than those participants with lower trauma scores.

Method

Participants

Data analyzed for the current study were derived from the IRB approved (IRB# 000983) Rockland Sample to Assess Neural Development Across the Lifespan. This study sought to assess psychological functioning across the lifespan in the community. The purpose of the Rockland Sample is to serve as an ecologically valid approach to identifying mechanisms involved in the development and maintenance of mental health problems. Approaches like these are vital for identifying critical periods and designing interventions for heterogeneous problems like trauma.

Between May 2010 and August 2011, the study enrolled 250 participants ranging from 4 to 85-years-old. Anonymous versions of these data were shared prospectively with the scientific community as part of the 1000 Functional Connectomes Project, http://fcon_1000.projects.nitrc.org/indi/pro/nki.html. As part of the study, participants aged 18 to

59-years-old were asked to complete a day long battery that is described in detail in the "Procedure" section. Data from one hundred and forty-five men (62.8%) and women (37.2%) were analyzed for this study. This represents all adult participants who completed the study; child (age $\leq$ 17 years) and older adult (age $\geq$ 60 years) were not included in the present analysis because the present study focuses on adults. Participants ranged in age from 18 to 58 years, with a mean age of 34.4 years (SD=11.6). Caucasians made up more than half of the sample (53.8%), followed by African Americans (37.2%), Asians/Pacific Islanders (6.9%), American Indians (1.4%), and Native Hawaiian/Others (.7%). These demographics closely matched those of the 2010 United States Census of Rockland County, indicating that the racial make-up of the sample matched the community (U.S. Census Bureau, 2010).

Measures

Trauma Symptom Checklist (TSC-40). The TSC-40 (Elliot & Briere, 1992) is a self-report measure that assesses trauma-related symptoms in adults occurring within the past two months. The instrument consists of 40-items that measure trauma symptomatology across six subscales: anxiety, depression, dissociation, Sexual Abuse Trauma Index (SATI), sexual problems and sleep disturbance. Items are scored using a 4-point scale ranging from 0 (never occurring) to 3 (often occurring). Previous research has found the TSC-40 to have strong psychometric properties, including an internal consistency of α= .90 for the overall scale and an internal consistency of α= .69 for the subscales (Elliot et al., 1992).

Structured Clinical Interview for DSM Disorders (SCID). The SCID (First et al., 1997) is a semi-structured interview used by clinicians to evaluate and diagnose the presence and severity of

psychiatric disorders pertaining to substance abuse, somatization, psychosis, anxiety, mood, and eating. The present study uses the SCID to diagnose Axis I disorders which are clinical disorders that are associated with current symptoms. In regard to inter-rater reliability, kappa values range from .60 to .83 for SCID Axis I diagnoses and .77 to .94 for Axis II diagnoses (Lobbestael, Leurgans, & Arntz, 2011).

Adult Self-Report (ASR). The ASR (Achenbach et al., 2003) is a self-report instrument designed for adults ages 18-59 years-old that assesses problem behaviors (e.g., behavioral, social and emotional problems) occurring in the past 6 months. Consisting of 126-items, the instrument produces scores on three subscales: internalizing, externalizing, and total problems. Internalizing behaviors are characterized by over control of emotion (e.g., withdrawing from social situations) whereas externalizing behaviors are characterized by under control of emotion (e.g., yelling due to frustration; Achenbach & Edelbrock, 1978). Items are rated on a three-point scale: 0 (not true), 1 (somewhat or sometimes true), and 2 (very true or often true). More problem behaviors are indicated by higher scores on each subscale. Research has found the ASR to have moderate to high levels of internal consistency, including $\alpha = .78$ for somatic complaints and $\alpha = .94$ for total problems (Achenbach et al., 2003).

Beck Depression Inventory (BDI-II). The BDI-II (Beck, Sterr, & Brown, 1996) is a self-report instrument that measures the severity of depressive symptomatology in adults and adolescents. This questionnaire consists of 21 groups of statements that assess symptoms of depression occurring within the past two weeks. Items are rated on a three-point scale ranging from 0 (not present) to 3 (most severe). Greater severity of symptoms is indicated by higher total scores.

Previous studies have found the BDI-II to have high levels of internal consistency (e.g., $\alpha \geq .91$) in both clinical and nonclinical adult samples (Beck et al., 1996) and a test-retest correlation of .82 - .98 (Sprinkle et al., 2002).

State-Trait Anxiety Inventory, Form Y (STAI-Y). The STAI-Y (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) is a self-report instrument that is designed to measure and distinguish between state (situational) anxiety and trait (enduring) anxiety. The questionnaire consists of 40-itemsrated on a 4-point scale: 1 (not at all), 2 (somewhat), 3 (moderately so), and 4 (very much so). Higher total scores indicate greater levels of anxiety. Researchers have found internal consistencies for the state anxiety subscale to range from .16 to .62; $\alpha = .93$. Internal consistencies for the trait anxiety subscale range from.73 to .86; $\alpha = .90$ (Spielberger et al., 1983).

Cognitive Appraisal of Risky Events (CARE). The CARE (Fromme et al., 1997) is a 90-item self-report instrument that assesses participants' anticipated risk and benefit of engaging in high-risk behaviors such as drunk driving, having sex without protection for sexually transmitted diseases or pregnancy, and damaging/destroying public property. Respondents are asked to rate the likelihood of risky behaviors yielding a positive (e.g., feeling good about yourself) or negative consequence (e.g., becoming sick or feeling embarrassed). Responses are rated on a 7-point scale: 1 (not at all likely) to 7 (extremely likely). Respondents are then asked to indicate the frequency of their involvement in those risky behaviors within the past 6 months. The questionnaire produces scores on 6 risky behavior subscales: (1) illicit drug usage; (2) risky sexual activities; (3) aggressive and illegal behaviors; (4) heavy drinking; (5) high-risk sports; and (6) irresponsible academic or work behaviors. Previous research has found the CARE to

have a test-retest reliability ranging from r = .51 to .65 for expected risks and r = .58 to .79 for expected benefits; internal consistency ranged from .64 to .90 (Fromme et al., 1997).

Demographics. Demographic information including age, sex, race, ethnicity, volunteer and parental socioeconomic status (SES) and family history of mental illness were collected for all participants. These were collected using a project developed measure (See Appendix A).

Procedure

Participants were recruited for the IRB approved Rockland Sample through social networking-based advertising (e.g., Facebook), online bulletin boards (e.g., Craigslist), local churches, synagogues and family centers. Interested individuals underwent a preliminary telephone interview wherein they were screened for inclusion and exclusion criteria. Inclusion criteria were: (1) fluency in English, sufficient cognitive functioning, (2) signed informed consent, (3) absence of any medical, neurologic, or learning disorders, and (4) age at entry between 4 and 99 years. Exclusion criteria were: (1) current use of psychoactive medications that may affect neurovascular blood flow (e.g., antipsychotics), (2) major medical conditions associated with MRI risk (e.g., pregnancy or history of metal implants), (3) insufficient cognitive functioning (IQ $\leq$ 70), (4) inability to provide signed informed consent, (5) inability or unwillingness to remain still during MRI scan, and (6) chronic medical illness (e.g., epilepsy). Participants came in for a day-long battery that took approximately 7.5 hours to complete. Instruments completed as part of this study are presented in Table 1. Participants were paid $100 for the day and also received breakfast and lunch. All participants completed the study and there were no adverse events associated with the study.

Table 1. *Measures participants completed as part of the original study.*

#	**Measures Completed By All Participants**
1	6 minute Walk
2	Autism Spectrum Screening Questionnaire (ASSQ)
3	Blood Draw
4	Checklist of Tic Symptoms
5	Delis-Kaplan Executive Function System (D-KEFS)
6	Magnetic resonance imaging (MRI)
7	Media Multitasking Index- ages 8+
8	Repetitive Behavior Scale-Revised (RBS-R)
9	Registration Forms- includes vitals and demographics
10	Social Responsiveness Scale (SRS)- ages 11+
11	VAS- Multi-item test meal
12	Wechsler Abbreviated Scale of Intelligence (WASI)
#	**Measures Completed By Adult Participants Only**
1	Adult ADHD Clinical Diagnostic Scale (ACDS) V 1.2
2	Adult Self Report (ASR)
3	Beck Depression Inventory-II (BDI)
4	Cognitive Appraisal of Risky Events (CARE)
5	Fagerstrom Test for Nicotine Dependence
6	State Trait Anxiety Inventory (STAI)
7	Structured Clinical Interview for DSM-IV Disorders (SCID)
8	Three Factor Eating Questionnaire
9	Trauma Symptom Checklist for Adults
10	UPPS Impulsive Behavior Scale

Note: Highlighted instruments are those that pertained to the hypotheses for the current study

Data Analysis

To test the first hypothesis that participants with a psychiatric diagnosis will have higher trauma scores than participants without a psychiatric diagnosis, a one-way ANOVA was conducted using psychiatric diagnosis as an independent variable and total trauma score as the dependent variable. The second hypothesis, that participants with higher trauma scores will

report higher levels of depressive and anxiety symptoms, was tested using a bivariate correlation to examine basic pairwise relationships between the outcome variables (i.e., problem behaviors, anxiety, depression, and risky behavior) and the criterion variable, trauma score. Last, the third hypothesis, that participants with higher trauma scores will report more risky and problem behaviors than those participants with lower trauma scores, was tested using a multiple regression analysis to examine the relationship between trauma and the outcome variables.

Results

Preliminary Analyses

Based on the structured clinical interview (i.e., SCID), 37.2% (n = 54) of the participants met criteria for a clinical diagnosis either in the present or in their lifetime. Type and prevalence of psychiatric disorders is represented in Table 2. Preliminary analyses (i.e., t-tests) were conducted to examine potential differences in demographic variables (including age, sex, race, ethnicity, volunteer and parental SES and family history of mental illness) based on the presence or absence of a psychiatric diagnosis. Participants with a psychiatric diagnosis did not significantly differ from those without a psychiatric diagnosis for sex, age, race, ethnicity, parental SES or family history of mental illness. However, individuals with a psychiatric diagnosis had significantly lower levels of individual socioeconomic status (SES), $F(1, 143) = 6.244$, $p = .014$. Additionally, participants with a psychiatric diagnosis scored significantly higher than those without a psychiatric diagnosis on all of the trauma variables, including total trauma scores, $F(1, 143) = 34.881$, $p \leq .01$, as illustrated in Figure 1.

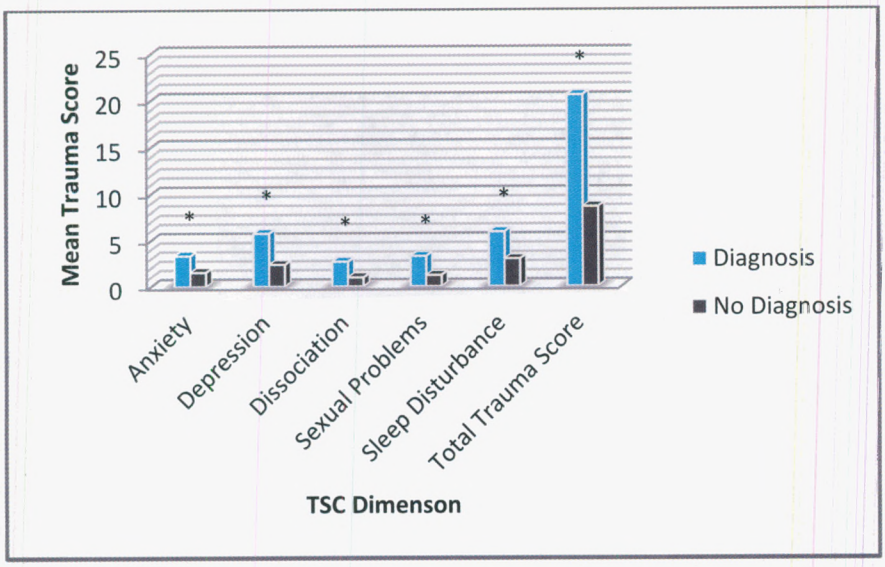

Figure 1. Mean Scores on the Trauma Symptom Checklist.

Bivariate Pearson correlations were conducted to examine the relationships between the outcome variables (i.e., anxiety, depression, internalizing problems, externalizing problems, and risky behaviors) and trauma. As presented in Figure 2, findings indicate that trauma score has a strong and statistically significant correlation with anxiety, $r(137)= .64$, $p \leq .01$; depression, $r(143)= .77$, $p \leq .01$; internalizing problems, $r(134)= .77$, $p \leq .01$; and externalizing problems $r(134)= .67$, $p \leq .01$. While trauma score has a weak but still statistically significant correlation with heavy drinking, $r(138)= .18$, $p = .034$. The correlations between trauma score and the remaining risky behavior variables (i.e., illicit drug use, $r(138)= .16$, $p = .064$ and risky sexual behaviors, $r(138)= .04$, $p = .64$) were not significant.

Table 2

Prevalence of psychiatric disorders in a community sample.

Clinical Diagnosis	Frequency	Percent
Diagnosis Present	*54*	*37.2*
Diagnosis Absent	*91*	*62.8*
Specific Type		
Anxiety Disorders	*15*	*10.79*
Anxiety Disorder NOS	1	
Generalized Anxiety Disorder	1	
OCD	1	
Panic Disorder without Agoraphobia	2	
Posttraumatic Stress Disorder	6	
Social Phobia	3	
Specific Phobia	1	
Adjustment Disorders		*.72*
Adjustment Disorder with Mixed Anxiety	1	
Attention-Deficit and Disruptive Behavior Disorders		*2.16*
Attention deficit hyperactivity disorder	3	
Eating Disorders		*1.44*
Eating Disorder NOS	2	
Mood Disorders	*30*	*21.58*
Bipolar Disorder	5	
Depressive Disorder NOS	5	
Major Depressive Disorder	20	
Psychotic Disorders	*3*	*2.16*
Delusional Disorder	1	
Psychotic Disorder NOS	2	
Substance Related Disorders	*85*	*61.15*
Alcohol Abuse	14	
Alcohol Dependence	19	
Alcohol Induced Mood Disorder	1	
Amphetamine Dependence	1	
Cannabis Abuse	12	
Cannabis Dependence	8	
Cocaine Abuse	4	
Cocaine Dependence	12	
Hallucinogen Dependence	2	
Opioid Abuse	1	
Opioid Dependence	7	
Polysubstance Dependence	1	
Sedative, Hypnotic, or Anxiolytic Abuse	1	
Sedative, Hypnotic, or Anxiolytic Dependence	2	

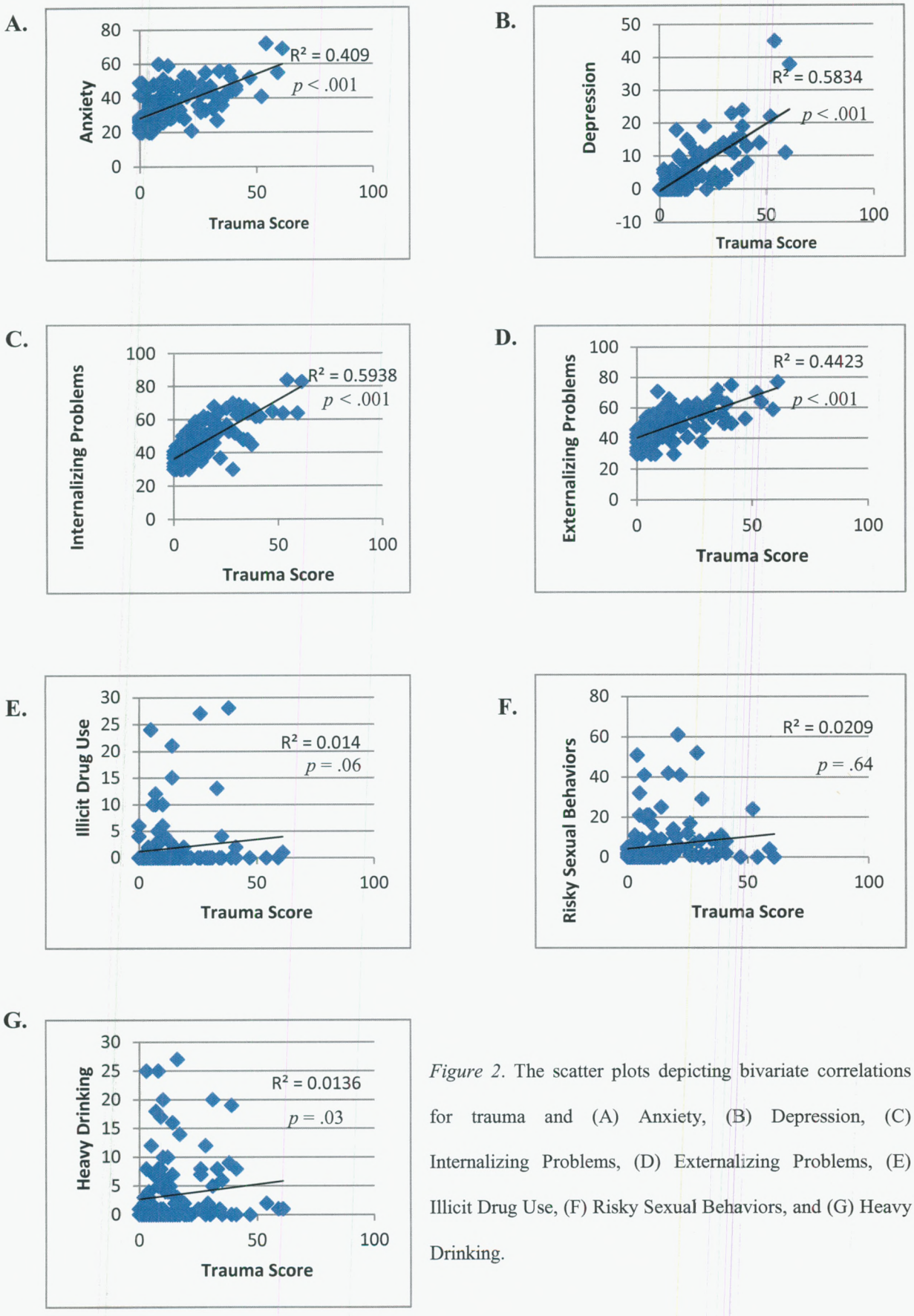

Figure 2. The scatter plots depicting bivariate correlations for trauma and (A) Anxiety, (B) Depression, (C) Internalizing Problems, (D) Externalizing Problems, (E) Illicit Drug Use, (F) Risky Sexual Behaviors, and (G) Heavy Drinking.

Multiple Regression Analysis

A multiple linear regression analysis was conducted to investigate how well the outcome variables were associated with trauma score. The outcomes variables (anxiety, depression, internalizing behaviors, externalizing behaviors, and risky behaviors) served as independent variables in the model while total trauma score served as the dependent variable. The model explains 70% of the variance in trauma scores, $F(7,125) = 44.08$, $p < .001$, Adjusted $R^2 = .70$, 95% CI ranged from .63 to .80.

As presented in Table 3, the partial regression coefficient relating anxiety to trauma score was not statistically significant, $\beta = .03$, $p = .72$, CI = -.16 to .22. The partial regression coefficient relating depression to trauma score was statistically significant, $\beta = .40$, $p < .001$, CI = .46 to 1.0. The partial regression coefficient relating internalizing behaviors to trauma score was statistically significant, $\beta = .34$, $p = .001$, CI = .16 to .56. The partial regression coefficient relating externalizing behaviors to trauma score was statistically significant, $\beta = .18$, $p = .02$, CI = .03 to .42. The partial regression coefficient relating illicit drug use to trauma score was not statistically significant, $\beta = .06$, $p = .33$, CI = -.03 to .10. The partial regression coefficient relating risky sexual activity to trauma score was not statistically significant, $\beta = -.07$, $p = .17$, CI = -.09 to .02. The partial regression coefficient relating heavy drinking to trauma score was not statistically significant, $\beta = .00$, $p = .98$, CI = -.12 to .12.

Table 3

Multiple Regression Analysis of Anxiety, Depression, Problem and Risky Behaviors on Trauma.

Outcome	β	*p*
Anxiety		
Total Score	.03	.72
Depression		
Total Score	.40**	.001
Problem Behaviors		
Internalizing	.34**	.001
Externalizing	.18*	.02
Risky Behavior		
Illicit Drug Use	.06	.33
Risky Sexual Activity	-.07	.17
Heavy Drinking	.00	.98

Note: $R^2 = .71$, Adjusted $R^2 = .70$ ($p < .001$); * $p < .05$

Discussion

The current study sought to characterize trauma in a community sample by examining the associations between trauma and various mental health outcomes. We found that participants with a psychiatric diagnosis had significantly higher trauma scores than those participants without a psychiatric diagnosis. We found trauma to be associated with depressive symptoms and problem behaviors (i.e. internalizing and externalizing behaviors). We did not find an association between trauma and anxiety or trauma and risky behaviors (i.e. illicit drug use, risky sexual activities and heavy drinking). As follows is a discussion of each of these specific findings.

Substance abuse disorders accounted for more than 61% of the clinical diagnoses given to the participants in this study while PTSD accounted for a very small percentage (4.3%) of the diagnoses. It may be possible that symptoms related to PTSD are present but not exacerbated enough to meet diagnostic criteria for a PTSD diagnosis. It also may be that the structured clinical interview used to assess for PTSD was not sensitive enough, as a PTSD specific assessment tool would have been, to detect the disorder.

As hypothesized, we found higher levels of trauma for those with a clinical psychiatric diagnosis. Consistent with previous research (Dedert et al., 2009), this finding indicates that individuals who report higher levels of trauma are more likely to be diagnosed with a psychiatric disorder. This finding is not surprising because exposure to trauma is predictive of both low social support and high stress; the high stress is predictive of depression and low social support is predictive of high levels of PTSD (Hensley & Varela, 2008). Thus, researchers posit that survivors of trauma are not only at an increased risk for developing depression and PTSD but their exposure to trauma may also hinder them from seeking out and maintaining social support structures. This impairment further increases trauma survivors' vulnerability to experience adverse mental health outcomes and future trauma (Hensley et al., 2008).

Freeman and Fowler (2009) found trauma to be significantly associated with higher levels of anxiety, depression, and illicit drug use. In support of our second hypothesis, we also found trauma to be significantly correlated with depression. In fact, depression symptomatology was associated with trauma scores in our regression model. However, the current study did not find anxiety to be predictive of trauma although anxiety is significantly correlated with trauma.

This may be because although PTSD is the most common anxious reaction following exposure to trauma (Shalev et al, 1998); it is only one of several anxiety disorders. Therefore, assessing general anxiety may not be the most accurate way of measuring PTSD symptoms.

Consistent with the third hypothesis, the current study did find internalizing and externalizing problems to be predictors of higher trauma scores. This finding is in line with previous studies that have found a link between exposure to trauma (e.g. domestic violence and childhood maltreatment) and higher levels of externalizing (e.g., acting out and defiance) and internalizing behaviors (e.g., social isolation and eating too little or too much; Milot, Ethier, St-Laurent, & Provost, 2010; Moylan et al., 2010). This finding suggests that problem behaviors should be assessed in individuals exposed to trauma.

Contrary to our prediction, the relationship between trauma and risky behaviors (i.e. risky sexual behaviors, illicit drug use and heavy drinking) was also not significant despite previous research finding that individuals exposed to trauma have an increased likelihood of alcohol dependency (Enoch et al., 2010), illicit drug use (Smith, Davis, & Fricker-Elhai, 2004) and engaging in sexual risk-taking behaviors (Kaufman, Beals, Mitchell, Lemaster, & Fickenscher, 2004). Similar to the current study, Smith et al. (2004) also used the CARE to assess risk-taking behavior in trauma survivors. They found that among survivors of maltreatment, only individuals who had survived child sexual abuse (CSA) and adult sexual assault (ASA) perceived illicit drug use and risky sexual behaviors as being less risky than a control group. Additionally, ASA survivors associated heavy drinking with greater benefits. Smith et al.'s (2004) work may suggest that individuals exposed to trauma have distorted perceptions of the risks and benefits

associated with their behaviors and it possible that this distorted thinking motivates participation in risk-taking activities.

As previously mentioned, the present study did not find a link between trauma symptoms and risky behaviors. Yet, the work of Smith and colleagues (2004) offers some insight into why the association did not reach significance in the present study. Most notably, their study highlights the benefit of examining the distinctive effects associated with various forms of abuse independent of each other. It is possible that the current study's failure to disentangle the various types of risky behavior related to trauma may be due to the fact that the specific dimensions assessed identify health behaviors rather than the wide range of consequences that are more commonly associated with trauma and PTSD symptoms (Lobbestael, Arntz, & Bernstein, 2010). Taken together, future research should seek to extend Smith's findings by measuring risky behaviors in individuals who have survived a range of other traumas, not limited to abuse.

The present study has a number of limitations that warrant attention. First, although our sample was representative of the racial composition of Rockland County; it was not a nationally representative sample of the United States. Particularly underrepresented were Hispanics/Latinos. Future research should use a more nationally representative sample. Second, the current study used correlational data and a cross-sectional design. Hence, we are unable to assume a direct cause and effect relationship among the variables. For instance, it is possible that exposure to trauma (e.g. combat) can heighten an individual's desire to engage in risky behaviors (e.g. illicit drug use), yet it is equally possible that engaging in risky behaviors (e.g. drunk driving) places an individual at increased risk of experiencing trauma (e.g. a fatal car accident).

Future research should employ longitudinal designs which will extend the current literature by allowing researchers to assess the directionality of the relationships between exposure to trauma and subsequent behaviors and symptoms. The third limitation of the present study was the use of an instrument that assessed general trait anxiety. In the future, researchers should use PTSD specific assessment tools (i.e. UCLA-PTSD Index) in combination with data derived from clinical interviews in order to have a more well-rounded view of PTSD symptoms. Further, future studies should check the content validity of instruments assessing risky behaviors to examine whether they relate to underlying psychopathology rather than just measuring health behavior. Last, the current study did not take type of trauma into account when examining the link between trauma and various outcomes. Since previous research indicates that different types of trauma may be associated with unique outcomes, future studies should take type of trauma into consideration.

Despite these limitations, the current study has several important implications. The findings of this study revealed that trauma exposure is closely linked to mental health; therefore, highlighting the need for a better understanding of the mechanisms involved in this complicated relationship. Ultimately the findings of this study indicate that trends attributed to higher levels of traumatic exposure can also be extended to individuals who exhibit lower levels of trauma-related symptoms. This is particularly important because although research has consistently found a link between exposure to trauma and mental health disturbances, trauma is often overlooked or ineffectively screened for in professional settings, especially within the public sector (Weinreb et al., 2010). In order to effectively screen for trauma, all patients should undergo a brief and broad universal screen for exposure to trauma wherein clinicians should

attempt to identify factors (e.g., poverty) that increase the risk for trauma-related symptoms and behavior problems (Collins et al., 2010). Our finding of an association between trauma and depression supports the notion that everyone who is depressed should be screen for trauma and everyone who is exposed to trauma should be screened for depression. Moreover, our finding of an association between trauma and problem behaviors supports the importance of not only assessing problem behaviors in survivors of trauma but also constructing a treatment plan that focuses on alleviating problem behaviors because these maladaptive behaviors may be contributing to individuals' psychological problems.

If the patient reports exposure to any traumatic event during the preliminary universal trauma screen, a more specific and validated trauma assessment tool should be used to further examine symptom severity and the nature of the traumatic event (Harris & Fallot, 2001). This assessment tool should be developmentally specific because trauma-related symptoms manifest differently across age. For instance, younger children may display their trauma-related symptoms through play or develop a fear of things that seem unrelated to the trauma (i.e. monsters) while older children may develop a disinterest in their friendships and hobbies (Anderson, 2005). Further, the present study supports recommendations that emphasize the importance of clinicians screening clients for all types of trauma as different traumas may manifest themselves in a range of symptoms and behaviors.

Although this study did not take type of trauma into account as that data was not available for the present study, we did find a link between trauma and various types of psychopathology. To adequately untangle this relationship with an eye toward prevention and

targeted intervention, longitudinal explorations of trauma in community samples that include an in-depth exploration of specific types of trauma as well as psychopathology are warranted. This study is an important first step in that process.

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APPENDIX A

CHARACTERIZING TRAUMA IN A COMMUNITY SAMPLE:

HOW TRAUMA SYMPTOMS ARE RELATED TO PROBLEM BEHAVIORS

Enclosed:

Rockland Sample Consent Form

Rockland Sample Registration Form (Demographics)

Trauma Symptom Checklist (TSC-40)

Structured Clinical Interview for DSM Disorders (SCID)

Adult Self-Report (ASR)

Beck Depression Inventory (BDI-II)

State-Trait Anxiety Inventory, Form Y (STAI-Y)

Cognitive Appraisal of Risky Events (CARE)

Participant Initials: _____
ID#: _____

CONSENT FORM TO PARTICIPATE IN THE STUDY TITLED "ROCKLAND SAMPLE TO ASSESS NEURAL DEVELOPMENT ACROSS THE LIFE SPAN"

Nathan S. Kline Institute For Psychiatric Research (NKI)
140 Old Orangeburg Rd, Orangeburg, NY 10962

Participant Name: _____ **Participant ID:** _____

Project Directors: **Lawrence Maayan, M.D.** **Phone: 845-398-6637**
Kate Nooner, Ph.D. **845-398-5432**
Coordinator: **Melissa Benedict, M.A.**

THE PURPOSE OF THIS RESEARCH IS: To develop and test new Magnetic Resonance Imaging (MRI) methods for gaining information about how the brain is related to ways people think, feel and how their body works at different ages from early childhood to old age. These methods may be used in research studies of mental illnesses to enhance our understanding of the causes and treatments for these disorders. We also want to learn more about how genetic variations are related to biological traits in neuropsychiatric disorders.

THE FOLLOWING PROCEDURES WILL BE INVOLVED:
If you choose to participate, you will complete 1 visit that will take approximately 7.5 hours. If you choose, these procedures can be split up over two days.

You will be asked to read and sign this consent form before any study-related procedures are performed.

The following tests and procedures will be performed:

- Demographic information such as gender, ethnicity and education
- Review of your medical history including any medication you are taking, hospitalizations and surgeries
- Measurement of your vital signs (blood pressure, pulse rate, height and weight)
- Waist and Hip measurements
- We will measure your body composition – the measurement of body fat in relation to lean body mass. Sticky electrode pads will be placed on your hand and foot and will be attached to a machine that will measure how much water you have in your body. This procedure along with your weight, height, age, and sex, will allow us to calculate approximately how much body fat you have.
- Collection of fasting blood samples for routine tests (glucose, cholesterol, triglycerides, and insulin). At the same time, we will also collect additional tubes of blood for genetic testing. (See below for more information on genetic testing)
- You will have a meal prepared for you and you will be able to select the items that you want to eat. After you are done eating you will be asked to fill out a questionnaire to assess your eating habits.
- You will be interviewed and asked to answer a number of questions about how you have been feeling recently as well as feelings you may have had in the past.
- A brief intelligence screening (IQ test) will be completed
- You will be asked to complete several questionnaires regarding your recent behavior, lifetime stressful events, eating habits, nicotine use, impulsive behaviors and physical activity levels.
- You will complete some psychological tests, for example looking at pictures or answering questions involving reasoning or other thinking abilities.
- You will complete an MRI. (see below for more information)

You may have been asked to complete some of the above questionnaires at home. If you completed these questionnaires at home and brought them with you today they are also covered under this consent and will become part of your research record.

MRI scanning makes pictures of your brain. During the scanning session, you will lie down quietly on a platform, and the platform will slide into the scanner. Once you are inside the scanner, it will start to take the pictures. For some experiments, pictures of the brain are not actually taken, but other information about the brain's structure and/or function is measured by the scanner. You will be in the scanner for approximately 50 minutes.

While the scanner is working, you may hear noises, like knocking or beeping sounds. We will give you ear-plugs or earphones to reduce the noise to a more comfortable level. While you are in the scanner, you can talk to the person who is running the scanner, and if you ask, they can stop the scan.

If there are technical difficulties, we may ask you to return to NKI for an additional (optional) visit.

For the genetic testing, the amount collected will be about 2.5 tablespoons of blood. After we collect the sample, we will send a portion of it to a laboratory where experts will examine the genes that we are currently studying. Your sample may be stored in the laboratory indefinitely, so that in the future, additional genes of interest may be studied as well. The genetic information obtained will be analyzed together with the biological data, to study the relationship between genetic variations and biological traits. The sample that is collected for this study is for research purposes only and not for medical purposes.

All information obtained as described (including any questionnaires you may have completed at home) above will be kept confidential in password-secured databases and locked file cabinets in the Outpatient Research Department at NKI. Your identifiable information will only be accessible to the Project Director, other NKI investigators, and designated research staff.

Anonymous data from this study may also be combined with other anonymous data and sent to a data bank that is supported by the National Institutes of Health (NIH). Sharing anonymous data is helpful because it allows for newer, larger questions to be studied. Your data will be made completely anonymous, which means that there will be no information that can identify who you are in any way.

If you have previously completed a diagnostic interview or any of the other procedures listed above, as part of your participation in another NKI study, you may not have to repeat these procedures. You will be asked to sign a separate release form so that the project staff for this study may obtain a copy of those assessments for your research record.

You may receive information about your health from any laboratory tests done in this study. You will receive feedback from the study doctor as appropriate for your clinical care.

THE POTENTIAL RISKS OR DISCOMFORTS TO YOU ARE: Sometimes individuals may become uncomfortable about questions in an interview. You may always take a break during the interview, and may also discontinue it if you find it too distressing. Please also read the information in the Confidentiality section below. Issues or concerns that arise during interviewing can be discussed with the project director Dr. Lawrence Maayan, who is a licensed child psychiatrist, or Dr. Kate Nooner, who is a licensed psychologist as well as any of the project staff for this study. Possible side effects from the blood draw include pain, swelling, bruising, or bleeding where the needle is inserted and fainting.

Genetic Risk:
Some people may be worried about their sample being tested for things that indicate they have a particular disease or medical conditions such as AIDS. Others may have concerns about genetic testing for a disease or condition such as breast cancer or Huntington's chorea. At this time there is no plan to test your sample for things that indicate that you or your biological relatives have a disease or medical condition.

Your sample will be kept indefinitely and used in future research studies. In these studies we may test other genes for involvement in neuropsychiatric disorders. Your sample will be stripped of information identifying you before it is stored and will be maintained using a coding system designed to protect your identity. The only people who will have access to your individual identity are the principal investigator and other NKI research staff.

There is a chance that participation in this study could cause psychological distress, economic and social harm. A new Federal law (2009), called the Genetic Information Nondiscrimination Act (GINA) generally makes it illegal for health insurance companies, group health plans, and employers of 15 or more persons to discriminate against you based on your genetic information. This means that employers with 15 or more employees may not use any genetic information from this research when making a decision to hire, promote, or fire you. Starting on May 21, 2010, health insurance companies and group health plans may not request your genetic information that we get from this research. This means they may not use your genetic information when making decisions regarding your health insurability. Be aware that this new federal law will not protect you against genetic discrimination by companies that sell life insurance, disability insurance, or long-term care insurance or by adoption agencies.

MRI Risk
There are no known long term risks associated with this kind of MRI scanning. The magnet of an MRI scanner, including this one, can cause electronic devices like pacemakers, beepers, and watches to malfunction, and some metal objects can be pulled into the magnet. If you have an electronic device (like a pacemaker) on your body, or implanted in your body, there is a risk that it may stop working. Certain medical devices or objects that you have on or in your body may make it unsafe for you to be scanned. We will ask you a series of questions before the scan to make sure you do not have any unsafe device or object on or in your body, and we will ask you to take off metallic objects you may be wearing (such as a watch or jewelry). If we determine that you have an unsafe device or object in or on your body that cannot be removed, you cannot have the scan.
It has been reported that a small number of subjects with tattoos may experience mild tingling or heating during the scan. If you have tattoos and notice similar sensations, please notify the person running the scanner, and the scan will be stopped.

PREGNANCY
According to the American College of Radiology guidance document for safe MR practices (2007), there are no known risks associated with MRI during pregnancy, and MRI is commonly performed in pregnant women. However, we will not scan someone who is pregnant and you should understand that if you are a woman in her child-bearing years, your consent to participate indicates that you believe you are not pregnant. Pregnancy testing is available upon request and we recommend you take advantage of this option if there is any chance you might be pregnant. Pregnancy testing will be performed by the NKI clinical laboratory.

THE POTENTIAL BENEFITS TO YOU OR TO OTHERS ARE: This research study will give you no direct benefits. It is hoped, however, that the knowledge gained will be of benefit to others in the future. These methods may be used in research studies of mental illnesses to enhance our understanding of the causes and treatments for these disorders. This project is for research purposes only and is not directed toward, nor designed for, clinical diagnosis. The scans performed in this study are not intended to find abnormalities. On occasion, a member of the research team may notice a finding on a scan that seems abnormal. When this happens, the investigator or designate may consult a specialist, such as a radiologist or neurologist, as to whether the finding merits further investigation. In accordance with patient confidentiality, no personal information will be given to the specialist. If the specialist recommends a follow-up, the Principal Investigator or designate will contact you. The initial contact may be verbal (telephone or in-person) followed by a notification letter documenting the nature of the finding and the kind of follow-up that is recommended. If you have elevated lab values, a copy of your labs will be mailed to you with the notification letter. If requested, a copy of the images (on a CD) can be mailed to you or picked up in-person. The decision as to whether to proceed with further examination or treatment lies with you. Costs for clinical follow-up are not budgeted in the cost of this research.

You are not expected to receive any direct benefit as a result of your participating in this research. We hope that the information we obtain from this research will improve our understanding of the genetic and biological basis of neuropsychiatric disorders. The genetic analyses we will do are for research purposes only and have no known value for your medical care. Therefore, you will not generally receive any reports of the genetic analyses performed on your sample, even if you ask to know the results.
If you indicate (by marking the appropriate box below) that we have your permission to do so, we may contact you at a future time for research or other purposes, to give general information about the research findings, or to provide information about a test on your sample that may benefit you or your family members.

IF YOU DO NOT PARTICIPATE IN THIS STUDY, YOU MAY RECEIVE THE FOLLOWING ALTERNATIVE TREATMENT: Since this is not a treatment research study, there are no alternative treatments.

CONFIDENTIALITY: While we do not anticipate any harmful consequences from enrolling in this study, we understand that you may have concerns about confidentiality regarding the information you disclose, and who has access to it. Should you consent to participate in this study, your identity will be kept confidential within the following limits. A copy of your informed consent may be sent to the Director of Quality Assurance at Rockland Psychiatric Center for monitoring purposes. Under state law, certain legal advocacy organizations (groups that support patient' rights) have authority to obtain confidential patient records. We could be required to give copies of your study records to one of these organizations if they request these. However, they would not be allowed to reveal your identifying information to anyone else without your permission. If we found that you intended to hurt yourself or someone else, we would also be obligated to break confidentiality to protect the safety of the individual at risk.
All information obtained from your interview will be kept in a confidential, password-secured database and locked filing cabinets at the NKI Outpatient Research Program. Information given during interviews will be accessible to Dr. Maayan, Dr. Nooner and the interviewers for this project, and to other NKI investigators and their research staff. Any publications resulting from this study will not identify you.

TERMINATION OF YOUR PARTICIPATION: The decision to take part in this research study is voluntary. You have the right to decide not to participate. Should you agree to participate in this research, you may change your mind at any time and withdraw from the study. If you choose not to participate or discontinue your participation, there will be no penalty or loss of benefit to which you would otherwise be entitled. The Project Director may also withdraw you from the study without your consent at anytime if: he believes it is in your best interest; you significantly fail to follow study directions and procedures; there are unexpected or serious side effects.

MEDICAL COMPENSATION FOR RESEARCH-RELATED INJURIES: Federal and New York State regulations require that we inform you about our institution's policy with regard to compensation and payment for treatment of research-related injuries. All forms of medical diagnosis and treatment, whether routine or experimental, involve some risk of injury. In the event that you experience an injury at Nathan Kline Institute as a direct result of participating in this effort the facility will provide emergency medical care within its capabilities, arrange such other emergency medical care as may be necessary and assist you in arranging follow up care for you. Neither the facility nor the Research Foundation for Mental Hygiene makes any commitment to pay for medical care, nor do they have programs to provide you with financial compensation for such injury. By agreeing to participate in this study and signing this consent form, you do not waive any legal rights nor do you release the research staff, the Nathan Kline Institute, The Research Foundation for Mental Hygiene, Inc. from liability for negligence.

PAYMENT FOR PARTICIPATION: You will receive $20 for the questionnaires that you completed at home. You will receive $40 for the assessments and $40 for the MRI. If you complete all of the procedures the total payment is $100. If you are asked to return for an additional visit due to technical difficulties, we will compensate you $25 for that visit.

Additional Information:
You may withdraw your consent for this research use of your genetics sample at any time by contacting Dr. Maayan at 845-398-6637 or Dr. Nooner at 845-398-5432. Your sample or any portion of it that has not already been used for research, will then be destroyed.

Commercialization of samples (genetics):
Your tissue samples, DNA, and their derivatives may be used to develop commercially valuable medical products. Cells obtained from your tissue sample may be used to establish a cell line which will be used to help identify genes or genetic markers. These cell lines may have commercial value. You are being asked to consent to such commercial uses. There are no plans to share any financial benefits arising from the commercial uses with you.

ACCESS TO RESEARCH RECORDS

Many of the studies being conducted at Nathan Kline Institute/Rockland Psychiatric Center obtain similar kinds of information, including MRI scans, cognitive tests, diagnosis and/or psychiatric symptomatology and interviews about education, health and family background and psychological tests. If you have participated in some of these studies, you may grant us permission to obtain the information described above from the researchers who directed those studies. You may also grant us permission to share information from this study with other researchers at NKI/RPC.

Please initial one:

_____ Yes, I give my permission for these researchers to obtain the above information from other research studies in which I have participated at NKI/RPC as well as to share information from this study with other NKI/RPC researchers.

_____ No, I do not give my permission for these researchers to obtain the above information from other studies I have participated in at NKI/RPC or to share information from this study with other NKI/RPC researchers.

PERMISSION FOR FUTURE CONTACT

Please indicate below with "Yes" or "No" and writing your initials if the researchers may contact you in the future for research purposes, to provide general information about the research findings, or to provide information about the test on your sample that may benefit you or your family members in relation to choices regarding preventive or clinical care:

Please initial one:

- I will allow researchers to contact me in the future for research purposes.

  YES ☐ NO ☐ Subject Initials _____

- I will allow researchers to contact me in the future to provide general information about the research findings.

  YES ☐ NO ☐ Subject Initials _____

- I will allow researchers to contact me in the future to provide information about the test on my sample that may benefit me or my family members in relation to choices regarding preventive or clinical care.

  YES ☐ NO ☐ Subject Initials _____

GENERAL CONDITIONS AND OTHER INFORMATION:

1. You will be told of any new findings that may influence your willingness to continue to participate in this research. Your participation in this study may be terminated by the Project Director if in his/her judgment it is inadvisable for you to continue.
2. If you would like to discuss **your rights as a participant in this study** with an institutional representative who is not part of this study, you may **contact Erna Ostrom, NKI/RPC IRB Coordinator at (845) 398-5493 or Carole Roth, JD, IRB Director at (845) 398-5492.**
3. If you have any **questions,** or if you experience a research-related injury at any time during your enrollment, you may call **Dr. Maayan (845) 398-6637, Dr. Nooner (845) 398-5432 or Melissa Benedict at (845) 398-5525.**
4. A copy of this consent form will be given to you, and a copy will be kept at in a locked file in the office of the researchers.

I voluntarily consent to participate in the research study as described above.

_____

Print Name of Participant

_____ _____

Signature of Participant Date

I believe that this consent is freely given, by a study participant with sufficient capacity to consent, who has been given all information deemed necessary by the Institutional Review Board or requested by the study participant.

_____

Print Name of Person Obtaining Consent

_____ _____

Signature of Person Obtaining Consent Date

REGISTRATION FORM

NATHAN KLINE INSTITUTE

Rockland Sample (Adult)

Revised 8/25/2010

Contact Date: _____/_____/_____
mm dd yy

Personal Information

Recorder: _____

Original Referral Source: _____

Name: _____
Last Name *First Name* *Middle Initial*

Address: _____
No. and Street *City* *State* *Zip*

Home Phone: _____ **Cell Phone:** _____

Email address: _____

Preferred methods of contact: 1_____

2_____

Drivers license? _____Yes _____No

Currently in treatment? _____Yes _____No **Date noted:**_____/_____/_____

If yes, doctor's name: _____
Doctor's phone number: _____

Demographics

Gender: _____ **Male** _____**Female**

Date Of Birth: ___ ___/___ ___/___ ___ ___ ___
m m d d y y y y

Age: _____

Ethnicity:

_____ Spanish origin, Hispanic or Latino
_____ Not Hispanic or Latino

Race:

_____ American Indian or Alaska Native
_____ Asian
_____ Black or African American
_____ Native Hawaiian or Other Pacific Islander
_____ White

Subject Initials: _____ ID #: _____

REGISTRATION FORM

NATHAN KLINE INSTITUTE

Rockland Sample (Adult)

Revised 8/25/2010

Native Language:

____ English
____ Spanish
____ Asian Dialect
____ African Dialect
____ Indian Dialect
____ Other (specify) _____

Self Reported Handedness:

____ Left hand favored
____ Right hand favored
____ Ambidextrous

Volunteer SES: _____

Parental SES: _____

Diagnostic Information

Original SCID completed by: _____ on: ____/____/_____
SCID update completed by: _____ on: ____/____/_____

Specify DSM-IV diagnoses:

Current		Lifetime	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Diagnostic Notes :

If subject has a substance diagnosis, note what drug(s) and the time period that diagnosis was met for:

Medical Information

Height: _____ cm. **Waist Circumference:** _____cm Hip Circumference _____cm

Weight: _____kgs. BMI _____ BMI Percentile _____ BMI Z-Score _____

Blood Pressure: _____/_____ **Pulse** _____

Age of mother at participants birth:_____ **Age of father at participants birth:** _____

Currently pregnant? _____Yes _____No **Pregnancy test requested?** _____Yes _____No

Subject Initials: _____ ID #: _____

REGISTRATION FORM

NATHAN KLINE INSTITUTE

Rockland Sample (Adult)

Revised 8/25/2010

Hearing Impaired?
_____Yes _____No If yes, specify (one hearing aid, etc.)_____

Vision Impaired? (answer "yes" only if not corrected to normal with glasses or contact)
_____Yes _____No _____ Colorblind (males only) If yes, specify: _____

Ever admitted to hospital for reasons other than birth or minor injury?
_____Yes _____No
If yes, explain _____

_____

History of stroke?
_____Yes _____No If yes, specify (date, etc.): _____

History of seizure or epilepsy?
_____Yes _____No If yes, specify: _____

History of significant head injury (i.e., with loss of consciousness greater than 15 minutes?)
_____Yes _____No If yes, specify: _____

History of heart problems? (i.e. heart attack, heart surgery, etc.)
_____Yes _____No If yes, specify: _____

History/Current allergies?
_____Yes _____No If yes, specify: _____

Known HIV status?
_____Pos _____ Neg _____ Not known If yes, specify test date or other information: _____

Any other major medical conditions? (i.e. diabetes, liver disease, blood disease, lung disease etc.)
_____Yes _____No If yes, specify: _____

NATHAN KLINE INSTITUTE

Rockland Sample (Adult)

Revised 8/25/2010

Currently taking any medications?

_____Yes _____No **Date information obtained:** _____/_____/_____

If yes, current medications listed below (Including psychiatric, medical, herbals and dietary)

NAME OF MEDICATION	NAME OF MEDICATION

Exclusionary meds include: Antipsychotics, Medications that affect blood pressure or heart rate (Propanolol), Anticonvulsants (Tegretol), Alpha-agonists (Clonidine), Adrenergic blockers (Flomax), Strattera,Tricyclic Antidepressants (Elavil), Sedating Antihistamines (Benadryl), Oral Decongestants (Sudafedrine) Selective Seratonin Medications

Family History

Known biological family history of mental illness?

_____Yes _____No

If yes, specify all known:

Mother _____ Father _____

Brother _____ Sister _____ Child _____

Maternal Grandmother _____ Maternal Grandfather _____

Paternal Grandmother _____ Paternal Grandfather _____

REGISTRATION FORM

NATHAN KLINE INSTITUTE

Rockland Sample (Adult)

Revised 8/25/2010

Social Economic Status: HOLLINGSHEAD CODES

4 Factor Code for Education
1 = Less than seventh grade
2 = Junior high school (including 9th grade)
3 = Partial high school (10th or 11th grade)
4 = High school graduate
5 = Partial college (at least one year or specialized training)
6 = Standard college or university graduation
7 = Graduate/professional training (graduate degree)

4 Factor Code for Occupation
1 = Farm laborers, menial service workers (dependent on welfare, no regular occupation)
2 = Unskilled workers
3 = Machine operators and semi-skilled workers
4 = Smaller business owners (< $25,000), skilled manual laborers, craftsman, tenant farmers
5 = Clerical and sales workers, small farm and business owners (business valued at $25,000-50,000)
6 = Technicians, semi-professionals, small business owners (business valued at $50,000-70,000)
7 = Smaller business owners, farm owners, managers, minor professionals
8 = Administrators, lesser professionals, proprietor of medium-sized business
9 = Higher executive; proprietor of large businesses, major professional

1. **Subject SES:** Highest Level of Education: _____

   a. Subject **Single:** highest level of occupation (write occupation and score below using codes on page 1): _____

   b. Subject **Married:** Highest Level of Education: _____
      i. Subject highest level of occupation: _____
      ii. Spouse highest level of occupation: Highest Level of Education: _____

      (If both working, sum ed and occ scores and divide by two, if not, or if not both gainfully employed, take head of household score.)

   c. Subject **Separated, Divorced or Widowed:**
      i. If employed, use subject highest level of occupation: _____
      ii. If not employed, but receiving payments, use supporter's highest level of occupation: _____
      iii. If not employed, and living off of estate settlement, use deceased's prior highest level of occupation: _____

   d. Subject **Retired:** highest level of occupation before retired: _____

Subject	Spouse
Education ( ) x 3 =	
Occupation ( ) x 5 =	
Total =	
Sum Volunteer + Spouse = ( ) divided by 2 =	
Subject SES Score:	

Subject Initials: _____ ID #: _____

NATHAN KLINE INSTITUTE

Rockland Sample (Adult)

Revised 8/25/2010

2. Parental SES:

Age reference: when the subject was 16 years old:

a. Mothers highest level of occupation: Highest Level of Education: _____

b. Fathers highest level of occupation: Highest Level of Education: _____

(If parents were married when subject was 16, sum ed and occ and divide by 2. Otherwise, take head of household or follow rules above.)

Maternal	**Paternal**
Education ( ) x 3 =	Education ( ) x 3 =
Occupation ( ) x 5 =	Occupation ( ) x 5 =
Total =	Total =
Maternal+ Paternal = ( ) divided by 2 =	
Subject Parental SES Score:	

Notes:

Subject Initials: _____ ID #: _____

Rockland Sample 3 31 10

Participant Initials: _____

Participant ID: _____

Subject Name _____ Date _____

TSC-40 (adults age 18+)

How often have you experienced each of the following in the last two months?

0 = Never 3 = Often

1. Headaches	0 1 2 3
2. Insomnia (trouble getting to sleep)	0 1 2 3
3. Weight loss (without dieting)	0 1 2 3
4. Stomach problems	0 1 2 3
5. Sexual problems	0 1 2 3
6. Feeling isolated from others	0 1 2 3
7. "Flashbacks" (sudden, vivid, distracting memories)	0 1 2 3
8. Restless sleep	0 1 2 3
9. Low sex drive	0 1 2 3
10. Anxiety attacks	0 1 2 3
11. Sexual overactivity	0 1 2 3
12. Loneliness	0 1 2 3
13. Nightmares	0 1 2 3
14. "Spacing out" (going away in your mind)	0 1 2 3
15. Sadness	0 1 2 3

Participant Initials: _____

Participant ID: _____

16. Dizziness	0	1	2	3
17. Not feeling satisfied with your sex life	0	1	2	3
18. Trouble controlling your temper	0	1	2	3
19. Waking up early in the morning and can't get back to sleep	0	1	2	3
20. Uncontrollable crying	0	1	2	3
21. Fear of men	0	1	2	3
22. Not feeling rested in the morning	0	1	2	3
23. Having sex that you didn't enjoy	0	1	2	3
24. Trouble getting along with others	0	1	2	3
25. Memory problems	0	1	2	3
26. Desire to physically hurt yourself	0	1	2	3
27. Fear of women	0	1	2	3
28. Waking up in the middle of the night	0	1	2	3
29. Bad thoughts or feelings during sex	0	1	2	3
30. Passing out	0	1	2	3
31. Feeling that things are "unreal"	0	1	2	3
32. Unnecessary or over-frequent washing	0	1	2	3
33. Feelings of inferiority	0	1	2	3
34. Feeling tense all the time	0	1	2	3
35. Being confused about your sexual feelings	0	1	2	3

Participant Initials: _____

Participant ID: _____

36. Desire to physically hurt others	0	1	2	3
37. Feelings of guilt	0	1	2	3
38. Feelings that you are not always in your body	0	1	2	3
39. Having trouble breathing	0	1	2	3
40. Sexual feelings when you shouldn't have them	0	1	2	3

STRUCTURED CLINICAL INTERVIEW FOR DSM-IV-TR AXIS I DISORDERS

Non-patient Edition (January 2007)

S C I D - I / NP

Michael B. First, M.D.; Robert L. Spitzer, M.D.;
Miriam Gibbon, M.S.W.; and Janet B.W. Williams, D.S.W.

Study: _____ Study No.: _ _ _ _ NP1

Subject: _____ I.D. No.: _ _ _ _ NP2

Rater: _____ Rater No.: _ _ _ NP3

Date of Interview: _ _ _ _ _ _ NP4
Mo. Day Year

Sources of information (check all that apply): NP5
__ Subject NP6
__ Family/friends/associates NP7
__ Health professional/chart/referral note

Edited and checked by: _____ Date: _____

The development of the SCID was supported in part by NIMH Contract #278-83-0007(DB) and NIMH Grant #1 R01 MH40511. DSM-IV-TR criteria are reprinted with permission of the American Psychiatric Association.

For citation: First, Michael B., Spitzer, Robert L., Gibbon, Miriam, and Williams, Janet B.W.: "Structured Clinical Interview for DSM-IV-TR Axis I Disorders – Non-patient Edition (SCID-I/NP, 1/2007 revision)"

Biometrics Research Department
New York State Psychiatric Institute
1051 Riverside Drive - Unit 60
New York, New York 10032

Web page: **http://www.scid4.org**

Please print your answers.

ADULT SELF-REPORT FOR AGES 18-59

For office use only
ID#

YOUR FULL NAME First Middle Last

YOUR GENDER ☐ Male ☐ Female

YOUR AGE

ETHNIC GROUP OR RACE

TODAY'S DATE Mo.____ Date____ Yr.____

YOUR BIRTHDATE Mo.____ Date____ Yr.____

Please fill out this form to reflect ***your*** views, even if other people might not agree. You need not spend a lot of time on any item. Feel free to print additional comments. ***Be sure to answer all items.***

YOUR USUAL TYPE OF WORK, even if not working now. Please be specific—for example, auto mechanic; high school teacher; homemaker; laborer; lathe operator; shoe salesman; army sergeant; student (indicate what you are studying & what degree you expect).

Your work _____ Spouse or partner's work _____

PLEASE CHECK YOUR HIGHEST EDUCATION

- ☐ 1. No high school diploma and no GED
- ☐ 2. General Equivalency Diploma (GED)
- ☐ 3. High school graduate
- ☐ 4. Some college but no college degree
- ☐ 5. Associate's Degree
- ☐ 6. Bachelor's or RN Degree
- ☐ 7. Some graduate school but no graduate degree
- ☐ 8. Master's Degree
- ☐ 9. Doctoral or Law Degree
- ☐ Other education (specify): _____

I. FRIENDS:

A. About how many close friends do you have? (Do not include family members.)

☐ None ☐ 1 ☐ 2 or 3 ☐ 4 or more

B. About how many times a month do you have contact with any of your close friends? (Include in-person contacts, phone, letters, e-mail.)

☐ Less than 1 ☐ 1 or 2 ☐ 3 or 4 ☐ 5 or more

C. How well do you get along with your close friends?

☐ Not as well as I'd like ☐ Average ☐ Above average ☐ Far above average

D. About how many times a month do any friends or family visit you?

☐ Less than 1 ☐ 1 or 2 ☐ 3 or 4 ☐ 5 or more

II. SPOUSE OR PARTNER:

What is your marital status? ☐ Never been married ☐ Married but separated from spouse ☐ Married, living with spouse ☐ Divorced ☐ Widowed ☐ Other—please describe: _____

At any time in the past 6 months, did you live with your spouse or with a partner?

☐ **No—please skip to page 2.**

☐ **Yes**—Circle ***0, 1,*** or ***2*** beside items A-H to describe your relationship ***during the past 6 months:***

0 = Not True 1 = Somewhat or Sometimes True 2 = Very True or Often True

0	1	2	A. I get along well with my spouse or partner	0	1	2	E. My spouse or partner and I *disagree* about living arrangements, such as where we live
0	1	2	B. My spouse or partner and I have trouble sharing responsibilities	0	1	2	F. I have trouble with my spouse or partner's family
0	1	2	C. I feel satisfied with my spouse or partner	0	1	2	G. I like my spouse or partner's friends
0	1	2	D. My spouse or partner and I enjoy similar activities	0	1	2	H. My spouse or partner's behavior annoys me

ASEBA, University of Vermont
1 South Prospect St., Burlington, VT 05401-3456
www.ASEBA.org

Please be sure you have answered all items. Then see other side.

1-03 Edition - 111

Please print. Be sure to answer all items.

III. FAMILY:

Compared with others, how well do you:		Worse than Average	Variable or Average	Better than Average	No Contact
A. Get along with your brothers?	☐ I have no brothers	☐	☐	☐	☐
B. Get along with your sisters?	☐ I have no sisters	☐	☐	☐	☐
C. Get along with your mother?	☐ Mother is deceased	☐	☐	☐	☐
D. Get along with your father?	☐ Father is deceased	☐	☐	☐	☐
E. Get along with your biological or adopted children?	☐ I have no children				
1. Oldest child	☐ Not applicable	☐	☐	☐	☐
2. 2nd oldest child	☐ Not applicable	☐	☐	☐	☐
3. 3rd oldest child	☐ Not applicable	☐	☐	☐	☐
4. Other children	☐ Not applicable	☐	☐	☐	☐
F. Get along with your stepchildren?	☐ I have no stepchildren	☐	☐	☐	☐

IV. JOB: *At any time in the past 6 months,* did you have any paid jobs (including self-employment and military service)?

☐ **No—please skip to Section V.**

☐ **Yes—please describe your job(s):** _____

Circle ***0, 1,*** or ***2*** beside items A-I to describe your work experience ***during the past 6 months:***

0 = Not True **1 = Somewhat or Sometimes True** **2 = Very True or Often True**

0 1 2	A. I work well with others	**0 1 2**	F. I do things that may cause me to lose my job
0 1 2	B. I have trouble getting along with bosses	**0 1 2**	G. I stay away from my job even when I'm not sick or not on vacation
0 1 2	C. I do my work well	**0 1 2**	H. My job is too stressful for me
0 1 2	D. I have trouble finishing my work	**0 1 2**	I. I worry too much about work
0 1 2	E. I am satisfied with my work situation		

V. EDUCATION: *At any time in the past 6 months,* did you attend school, college, or any other educational or training program?

☐ **No—please skip to Section VI.**

☐ **Yes**—what kind of school or program? _____

What degree or diploma are you seeking? _____ Major? _____

When do you expect to receive your degree or diploma? _____

Circle ***0, 1,*** or ***2*** beside items A-E to describe your educational experience ***during the past 6 months:***

0 = Not True **1 = Somewhat or Sometimes True** **2 = Very True or Often True**

0 1 2	A. I get along well with other students	**0 1 2**	D. I am satisfied with my educational situation
0 1 2	B. I achieve what I am capable of	**0 1 2**	E. I do things that may cause me to fail
0 1 2	C. I have trouble finishing assignments		

VI. Do you have any illness, disability, or handicap? ☐ **No** ☐ **Yes—please describe:**

VII. Please describe your concerns or worries about family, work, education, or other things: ☐ **No concerns**

VIII. Please describe the best things about yourself:

Please be sure you have answered all items.

Please print your answers. Be sure to answer all items.

IX. Below is a list of items that describe people. For each item, please circle *0, 1,* or *2* to describe yourself *over the past 6 months.* Please answer all items as well as you can, even if some do not seem to apply to you.

0 = Not True **1 = Somewhat or Sometimes True** **2 = Very True or Often True**

0 1 2 1. I am too forgetful
0 1 2 2. I make good use of my opportunities
0 1 2 3. I argue a lot
0 1 2 4. I work up to my ability
0 1 2 5. I blame others for my problems
0 1 2 6. I use drugs (other than alcohol and nicotine) for nonmedical purposes (describe): _____
_____
0 1 2 7. I brag
0 1 2 8. I have trouble concentrating or paying attention for long
0 1 2 9. I can't get my mind off certain thoughts (describe): _____
_____
0 1 2 10. I have trouble sitting still
0 1 2 11. I am too dependent on others
0 1 2 12. I feel lonely
0 1 2 13. I feel confused or in a fog
0 1 2 14. I cry a lot
0 1 2 15. I am pretty honest
0 1 2 16. I am mean to others
0 1 2 17. I daydream a lot
0 1 2 18. I deliberately try to hurt or kill myself
0 1 2 19. I try to get a lot of attention
0 1 2 20. I damage or destroy my things
0 1 2 21. I damage or destroy things belonging to others
0 1 2 22. I worry about my future
0 1 2 23. I break rules at work or elsewhere
0 1 2 24. I don't eat as well as I should
0 1 2 25. I don't get along with other people
0 1 2 26. I don't feel guilty after doing something I shouldn't
0 1 2 27. I am jealous of others
0 1 2 28. I get along badly with my family
0 1 2 29. I am afraid of certain animals, situations, or places (describe): _____
_____
0 1 2 30. My relations with the opposite sex are poor
0 1 2 31. I am afraid I might think or do something bad
0 1 2 32. I feel that I have to be perfect
0 1 2 33. I feel that no one loves me
0 1 2 34. I feel that others are out to get me
0 1 2 35. I feel worthless or inferior
0 1 2 36. I accidentally get hurt a lot, accident-prone
0 1 2 37. I get in many fights
0 1 2 38. My relations with neighbors are poor
0 1 2 39. I hang around people who get in trouble
0 1 2 40. I hear sounds or voices that other people think aren't there (describe): _____
_____
0 1 2 41. I am impulsive or act without thinking
0 1 2 42. I would rather be alone than with others
0 1 2 43. I lie or cheat
0 1 2 44. I feel overwhelmed by my responsibilities
0 1 2 45. I am nervous or tense
0 1 2 46. Parts of my body twitch or make nervous movements (describe): _____
_____
0 1 2 47. I lack self-confidence
0 1 2 48. I am not liked by others
0 1 2 49. I can do certain things better than other people
0 1 2 50. I am too fearful or anxious
0 1 2 51. I feel dizzy or lightheaded
0 1 2 52. I feel too guilty
0 1 2 53. I have trouble planning for the future
0 1 2 54. I feel tired without good reason
0 1 2 55. My moods swing between elation and depression
56. Physical problems ***without known medical cause:***
0 1 2 a. Aches or pains (***not*** stomach or headaches)
0 1 2 b. Headaches
0 1 2 c. Nausea, feel sick
0 1 2 d. Problems with eyes (***not*** if corrected by glasses) (describe): _____
_____
0 1 2 e. Rashes or other skin problems
0 1 2 f. Stomachaches
0 1 2 g. Vomiting, throwing up
0 1 2 h. Heart pounding or racing
0 1 2 i. Numbness or tingling in body parts
0 1 2 57. I physically attack people
0 1 2 58. I pick my skin or other parts of my body (describe): _____
_____
0 1 2 59. I fail to finish things I should do
0 1 2 60. There is very little that I enjoy
0 1 2 61. My work performance is poor
0 1 2 62. I am poorly coordinated or clumsy

Please be sure you have answered all items.
Then see other side.

Please print your answers. Be sure to answer all items.

0 = Not True **1 = Somewhat or Sometimes True** **2 = Very True or Often True**

0 1 2 63. I would rather be with older people than with people of my own age

0 1 2 64. I have trouble setting priorities

0 1 2 65. I refuse to talk

0 1 2 66. I repeat certain acts over and over (describe): _____

_____

0 1 2 67. I have trouble making or keeping friends

0 1 2 68. I scream or yell a lot

0 1 2 69. I am secretive or keep things to myself

0 1 2 70. I see things that other people think aren't there (describe): _____

_____

0 1 2 71. I am self-conscious or easily embarrassed

0 1 2 72. I worry about my family

0 1 2 73. I meet my responsibilities to my family

0 1 2 74. I show off or clown

0 1 2 75. I am too shy or timid

0 1 2 76. My behavior is irresponsible

0 1 2 77. I sleep more than most other people during day and/or night (describe):

_____

0 1 2 78. I have trouble making decisions

0 1 2 79. I have a speech problem (describe):

_____

0 1 2 80. I stand up for my rights

0 1 2 81. My behavior is very changeable

0 1 2 82. I steal

0 1 2 83. I am easily bored

0 1 2 84. I do things that other people think are strange (describe): _____

_____

0 1 2 85. I have thoughts that other people would think are strange (describe): _____

_____

0 1 2 86. I am stubborn, sullen, or irritable

0 1 2 87. My moods or feelings change suddenly

0 1 2 88. I enjoy being with people

0 1 2 89. I rush into things without considering the risks

0 1 2 90. I drink too much alcohol or get drunk

0 1 2 91. I think about killing myself

0 1 2 92. I do things that may cause me trouble with the law (describe): _____

_____

0 1 2 93. I talk too much

0 1 2 94. I tease others a lot

0 1 2 95. I have a hot temper

0 1 2 96. I think about sex too much

0 1 2 97. I threaten to hurt people

0 1 2 98. I like to help others

0 1 2 99. I dislike staying in one place for very long

0 1 2 100. I have trouble sleeping (describe): _____

_____

0 1 2 101. I stay away from my job even when I'm not sick or not on vacation

0 1 2 102. I don't have much energy

0 1 2 103. I am unhappy, sad, or depressed

0 1 2 104. I am louder than others

0 1 2 105. People think I am disorganized

0 1 2 106. I try to be fair to others

0 1 2 107. I feel that I can't succeed

0 1 2 108. I tend to lose things

0 1 2 109. I like to try new things

0 1 2 110. I wish I were of the opposite sex

0 1 2 111. I keep from getting involved with others

0 1 2 112. I worry a lot

0 1 2 113. I worry about my relations with the opposite sex

0 1 2 114. I fail to pay my debts or meet other financial responsibilities

0 1 2 115. I feel restless or fidgety

0 1 2 116. I get upset too easily

0 1 2 117. I have trouble managing money or credit cards

0 1 2 118. I am too impatient

0 1 2 119. I am not good at details

0 1 2 120. I drive too fast

0 1 2 121. I tend to be late for appointments

0 1 2 122. I have trouble keeping a job

0 1 2 123. I am a happy person

124. ***In the past 6 months,*** about how many times per day did you use tobacco (including smokeless tobacco)? _____ times per day.

125. ***In the past 6 months,*** on how many days were you drunk? _____ days.

126. ***In the past 6 months,*** on how many days did you use drugs for nonmedical purposes (including marijuana, cocaine, and other drugs, except alcohol and nicotine)? _____ days.

Please be sure you have answered all items.

BDI-II

Date:

Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today.** Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1. Sadness

0 I do not feel sad.
1 I feel sad much of the time.
2 I am sad all the time.
3 I am so sad or unhappy that I can't stand it.

2. Pessimism

0 I am not discouraged about my future.
1 I feel more discouraged about my future than I used to be.
2 I do not expect things to work out for me.
3 I feel my future is hopeless and will only get worse.

3. Past Failure

0 I do not feel like a failure.
1 I have failed more than I should have.
2 As I look back, I see a lot of failures.
3 I feel I am a total failure as a person.

4. Loss of Pleasure

0 I get as much pleasure as I ever did from the things I enjoy.
1 I don't enjoy things as much as I used to.
2 I get very little pleasure from the things I used to enjoy.
3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings

0 I don't feel particularly guilty.
1 I feel guilty over many things I have done or should have done.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6. Punishment Feelings

0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7. Self-Dislike

0 I feel the same about myself as ever.
1 I have lost confidence in myself.
2 I am disappointed in myself.
3 I dislike myself.

8. Self-Criticalness

0 I don't criticize or blame myself more than usual.
1 I am more critical of myself than I used to be.
2 I criticize myself for all of my faults.
3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes

0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10. Crying

0 I don't cry anymore than I used to.
1 I cry more than I used to.
2 I cry over every little thing.
3 I feel like crying, but I can't.

_____ Subtotal Page 1

Continued on Back

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11. Agitation

0 I am no more restless or wound up than usual.

1 I feel more restless or wound up than usual.

2 I am so restless or agitated that it's hard to stay still.

3 I am so restless or agitated that I have to keep moving or doing something.

12. Loss of Interest

0 I have not lost interest in other people or activities.

1 I am less interested in other people or things than before.

2 I have lost most of my interest in other people or things.

3 It's hard to get interested in anything.

13. Indecisiveness

0 I make decisions about as well as ever.

1 I find it more difficult to make decisions than usual.

2 I have much greater difficulty in making decisions than I used to.

3 I have trouble making any decisions.

14. Worthlessness

0 I do not feel I am worthless.

1 I don't consider myself as worthwhile and useful as I used to.

2 I feel more worthless as compared to other people.

3 I feel utterly worthless.

15. Loss of Energy

0 I have as much energy as ever.

1 I have less energy than I used to have.

2 I don't have enough energy to do very much.

3 I don't have enough energy to do anything.

16. Changes in Sleeping Pattern

0 I have not experienced any change in my sleeping pattern.

1a I sleep somewhat more than usual.

1b I sleep somewhat less than usual.

2a I sleep a lot more than usual.

2b I sleep a lot less than usual.

3a I sleep most of the day.

3b I wake up 1–2 hours early and can't get back to sleep.

17. Irritability

0 I am no more irritable than usual.

1 I am more irritable than usual.

2 I am much more irritable than usual.

3 I am irritable all the time.

18. Changes in Appetite

0 I have not experienced any change in my appetite.

1a My appetite is somewhat less than usual.

1b My appetite is somewhat greater than usual.

2a My appetite is much less than before.

2b My appetite is much greater than usual.

3a I have no appetite at all.

3b I crave food all the time.

19. Concentration Difficulty

0 I can concentrate as well as ever.

1 I can't concentrate as well as usual.

2 It's hard to keep my mind on anything for very long.

3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

0 I am no more tired or fatigued than usual.

1 I get more tired or fatigued more easily than usual.

2 I am too tired or fatigued to do a lot of the things I used to do.

3 I am too tired or fatigued to do most of the things I used to do.

21. Loss of Interest in Sex

0 I have not noticed any recent change in my interest in sex.

1 I am less interested in sex than I used to be.

2 I am much less interested in sex now.

3 I have lost interest in sex completely.

11 12 ABCDE

_____ Subtotal Page 2

_____ Subtotal Page 1

Rockland Sample 06 14 10

Participants Initials _____
Participants ID _____

SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-1

Please provide the following information:

Name_____ Date_____ S_____

Age_____ Gender (*Circle*) **M F** T_____

DIRECTIONS:

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel *right* now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1. I feel calm	1	2	3	4
2. I feel secure	1	2	3	4
3. I am tense	1	2	3	4
4. I feel strained	1	2	3	4
5. I feel at ease	1	2	3	4
6. I feel upset	1	2	3	4
7. I am presently worrying over possible misfortunes	1	2	3	4
8. I feel satisfied	1	2	3	4
9. I feel frightened	1	2	3	4
10. I feel comfortable	1	2	3	4
11. I feel self-confident	1	2	3	4
12. I feel nervous	1	2	3	4
13. I am jittery	1	2	3	4
14. I feel indecisive	1	2	3	4
15. I am relaxed	1	2	3	4
16. I feel content	1	2	3	4
17. I am worried	1	2	3	4
18. I feel confused	1	2	3	4
19. I feel steady	1	2	3	4
20. I feel pleasant	1	2	3	4

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SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-2

Name_____ Date_____

DIRECTIONS

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you *generally* feel.

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant	1	2	3	4
22. I feel nervous and restless	1	2	3	4
23. I feel satisfied with myself	1	2	3	4
24. I wish I could be as happy as others seem to be	1	2	3	4
25. I feel like a failure	1	2	3	4
26. I feel rested	1	2	3	4
27. I am "calm, cool, and collected"	1	2	3	4
28. I feel that difficulties are piling up so that I cannot overcome them	1	2	3	4
29. I worry too much over something that really doesn't matter	1	2	3	4
30. I am happy	1	2	3	4
31. I have disturbing thoughts	1	2	3	4
32. I lack self-confidence	1	2	3	4
33. I feel secure	1	2	3	4
34. I make decisions easily	1	2	3	4
35. I feel inadequate	1	2	3	4
36. I am content	1	2	3	4
37. Some unimportant thought runs through my mind and bothers me	1	2	3	4
38. I take disappointments so keenly that I can't put them out of my mind	1	2	3	4
39. I am a steady person	1	2	3	4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests	1	2	3	4

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Participants Initials _____
Participants ID _____

CARE

Name _____ Date _____

RISK OF ACTIVITIES

On a scale of 1 (not at all likely) to 7 (extremely likely) HOW LIKELY IS IT THAT YOU WOULD EXPERIENCE SOME NEGATIVE CONSEQUENCE (e.g., become sick, be injured, embarrassed, lose money, suffer legal consequences, fail a class, or feel bad about yourself) if you engaged in these activities?

	NEGATIVE CONSEQUENCES						
	Not at all Likely						**Extremely Likely**
1. Trying/using drugs other than alcohol or marijuana	1	2	3	4	5	6	7
2. Missing class or work	1	2	3	4	5	6	7
3. Grabbing, pushing, or shoving someone	1	2	3	4	5	6	7
4. Leaving a social event with someone I have just met	1	2	3	4	5	6	7
5. Driving after drinking alcohol	1	2	3	4	5	6	7
6. Making a scene in public	1	2	3	4	5	6	7
7. Drinking more than 5 alcoholic drinks	1	2	3	4	5	6	7
8. Not studying for exam or quiz	1	2	3	4	5	6	7
9. Drinking alcohol too quickly	1	2	3	4	5	6	7
10. Disturbing the peace	1	2	3	4	5	6	7
11. Damaging/destroying public property	1	2	3	4	5	6	7
12. Sex without protection against pregnancy	1	2	3	4	5	6	7
13. Leaving tasks or assignments for the last minute	1	2	3	4	5	6	7
14. Hitting someone with a weapon or object	1	2	3	4	5	6	7
15. Rock or mountain climbing	1	2	3	4	5	6	7

Participants Initials _____
Participants ID _____

Name _____ Date _____

On a scale of 1 (not at all likely) to 7 (extremely likely) HOW LIKELY IS IT THAT YOU WOULD EXPERIENCE SOME NEGATIVE CONSEQUENCE (e.g., become sick, be injured, embarrassed, lose money, suffer legal consequences, fail a class, or feel bad about yourself) if you engaged in these activities?

	NEGATIVE CONSEQUENCES						
	Not at all Likely					**Moderately Likely**	**Extremely Likely**
16. Sex without protection against sexually transmitted diseases	1	2	3	4	5	6	7
17. Playing non-contact team sports	1	2	3	4	5	6	7
18. Failing to do assignments	1	2	3	4	5	6	7
19. Slapping someone	1	2	3	4	5	6	7
20. Not studying or working hard enough	1	2	3	4	5	6	7
21. Punching or hitting someone with fist	1	2	3	4	5	6	7
22. Smoking marijuana	1	2	3	4	5	6	7
23. Sex with a variety of partners	1	2	3	4	5	6	7
24. Snow or water skiing	1	2	3	4	5	6	7
25. Mixing drugs and alcohol	1	2	3	4	5	6	7
26. Getting into a fight or argument	1	2	3	4	5	6	7
27. Involvement in sexual activities without my consent	1	2	3	4	5	6	7
28. Playing drinking games	1	2	3	4	5	6	7
29. Sex with someone I have just met or don't know well	1	2	3	4	5	6	7
30. Playing individual sports	1	2	3	4	5	6	7

Participants Initials _____
Participants ID _____

CARE

Name _____ Date _____

BENEFIT OF ACTIVITIES

On a scale of 1 (not at all likely) to 7 (extremely likely), HOW LIKELY IS IT THAT YOU WOULD EXPERIENCE SOME POSITIVE CONSEQUENCE (e.g., pleasure, win money, feel good about yourself,, etc.) if you were to engage in these activities?

	POSITIVE CONSEQUENCES						
	Not at all Likely					**Moderately Likely**	**Extremely Likely**
1. Trying/using drugs other than alcohol or marijuana	1	2	3	4	5	6	7
2. Missing class or work	1	2	3	4	5	6	7
3. Grabbing, pushing, or shoving someone	1	2	3	4	5	6	7
4. Leaving a social event with someone I have just met	1	2	3	4	5	6	7
5. Driving after drinking alcohol	1	2	3	4	5	6	7
6. Making a scene in public	1	2	3	4	5	6	7
7. Drinking more than 5 alcoholic drinks	1	2	3	4	5	6	7
8. Not studying for exam or quiz	1	2	3	4	5	6	7
9. Drinking alcohol too quickly	1	2	3	4	5	6	7
10. Disturbing the peace	1	2	3	4	5	6	7
11. Damaging/destroying public property	1	2	3	4	5	6	7
12. Sex without protection against pregnancy	1	2	3	4	5	6	7
13. Leaving tasks or assignments for the last minute	1	2	3	4	5	6	7
14. Hitting someone with a weapon or object	1	2	3	4	5	6	7
15. Rock or mountain climbing	1	2	3	4	5	6	7

Participants Initials _____
Participants ID _____

Name _____ Date _____

On a scale of 1 (not at all likely) to 7 (extremely likely) HOW LIKELY IS IT THAT YOU WOULD EXPERIENCE SOME POSITIVE CONSEQUENCE (e.g., pleasure, win money, feel good about yourself) if you were to engage in these activities?

POSITIVE CONSEQUENCES

	Not at all Likely					Moderately Likely	Extremely Likely
16. Sex without protection against sexually transmitted diseases	1	2	3	4	5	6	7
17. Playing non-contact team sports	1	2	3	4	5	6	7
18. Failing to do assignments	1	2	3	4	5	6	7
19. Slapping someone	1	2	3	4	5	6	7
20. Not studying or working hard enough	1	2	3	4	5	6	7
21. Punching or hitting someone with fist	1	2	3	4	5	6	7
22. Smoking marijuana	1	2	3	4	5	6	7
23. Sex with a variety of partners	1	2	3	4	5	6	7
24. Snow or water skiing	1	2	3	4	5	6	7
25. Mixing drugs and alcohol	1	2	3	4	5	6	7
26. Getting into a fight or argument	1	2	3	4	5	6	7
27. Involvement in sexual activities without my consent	1	2	3	4	5	6	7
28. Playing drinking games	1	2	3	4	5	6	7
29. Sex with someone I have just met or don't know well	1	2	3	4	5	6	7
30. Playing individual sports	1	2	3	4	5	6	7

Participants Initials _____
Participants ID _____

CARE

Name _____ Date _____

FREQUENCY OF INVOLVEMENT

For each of the activities listed below, please indicate <u>how many times</u> you have participated in this activity in the past six (6) months.

1. Tried/used drugs other than alcohol or marijuana _____
2. Missed class or work _____
3. Grabbed, pushed, or shoved someone _____
4. Left a social event with someone I have just met _____
5. Drove after drinking alcohol _____
6. Made a scene in public _____
7. Drank more than 5 alcoholic drinks on one occasion _____
8. Not studied for exam or quiz _____
9. Drank alcohol too quickly _____
10. Disturbed the peace _____
11. Damaged/destroyed public property _____
12. Sex without protection against pregnancy _____
13. Left tasks or assignments until the last minute _____
14. Hit someone with a weapon or object _____
15. Rock or mountain climbed _____
16. Sex without protection against sexually transmitted diseases _____

Participants Initials _____
Participants ID _____

Name _____ Date _____

For each of the activities listed below, please indicate how many times you have participated in this activity in the past six (6) months.

17. Played non-contact team sports _____

18. Failed to do assignments _____

19. Slapped someone _____

20. Not studied or worked hard enough _____

21. Punched or hit someone with fist _____

22. Smoked marijuana _____

23. How many different sexual partners have you had in the past 6 months? _____

24. Snow or water skiied _____

25. Mixed drugs or alcohol _____

26. Got into a fight or argument _____

27. Involved in sexual activities without my consent _____

28. Played drinking games _____

29. Sex with someone I have just met or don't know well _____

30. Played individual sports _____