POSITIVE PSYCHOLOGY MITIGATING RISK FOR DELINQUENT BEHAVIOR

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ABSTRACT

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Research suggests that positive psychology factors have the potential to protect a variety of individuals including children, adolescents, and adults from adverse outcomes (e.g., low levels of psychological well-being, high levels of psychopathology). However, there is no known research that examines if positive psychological factors are protective against delinquent behavior—prevalent negative outcomes in American society (e.g., engagement in illegal or deviant activity)—particularly in individuals in which various risk factors are present. The current study was designed to evaluate the ability of positive psychological factors (specifically, gratitude, self-esteem, and posttraumatic growth) to mitigate risk (after childhood maltreatment, low levels of social support, and low socioeconomic status) for delinquent behavior in young adults. Statistical analyses explored the moderating effects of positive psychological variables on delinquent behavior in the context of experiencing certain risk factors. Results revealed that these positive psychological factors did not protect against delinquent behavior in situations in which certain risk factors were present. However, exploratory analyses provided interesting information regarding the role of gratitude and self-esteem in relation to delinquent behavior. These findings inform the field of positive psychology and may contribute to the development of positive psychology interventions designed to reduce delinquent behavior in vulnerable populations.

KEY WORDS: Positive psychology, Resilience, Risk factors, Delinquent behavior, Undergraduate students.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

Introduction

There has been tremendous growth in the field of positive psychology over the last two decades. Positive psychology is defined as the scientific study of the "good life" with a focus on three components: positive subjective states, positive psychological traits, and positive institutions (Watkins, 2015). In other words, the field of positive psychology focuses on examining the strengths, virtues, and factors that contribute to a happy and meaningful life. Recent research in the field highlights the role of aspects of positive psychology as potential protective factors against suboptimal outcomes (e.g., lower levels of well-being, higher levels of psychopathology), but less is known about how positive psychological factors protect against negative outcomes in individuals with identified risk factors or previous experience of trauma, abuse, or neglect (Pezent, 2011; Schotanus-Dijkstra et al., 2018; Sin & Lyubomirsky, 2009).

General findings suggest that those who maintain higher levels of positive psychological characteristics (e.g., hope, optimism, self-efficacy, gratitude, etc.) have been found to be protected against experiencing lower levels of subjective well-being (Pezent, 2011). Positive psychology also has an influence on a variety of other factors, including better neurobiological health (i.e., hypothalamic-pituitary-adrenal axis/autonomic nervous system activity), enhanced sports performance, and more positive workplace outcomes (e.g., employee engagement; Jackson et al., 2001; Sepah, 2011; Vazquez et al., 2018). With the apparent beneficial effects of positive psychological factors (PPFs), a variety of interventions (e.g., gratitude, mindfulness, etc.) have commonly been used among various groups of people including clinical,

community, undergraduate, and youth populations (Kerr et al., 2015; Manicavasagar et al., 2014; Seligman et al., 2005; Sin & Lyubomirsky, 2009; Watkins et al., 2003).

Positive psychology interventions have been studied in numerous settings and often yield favorable results. For example, a meta-analysis concluded that interventions (such as those designed to increase levels of gratitude or mindfulness) have been found to improve mental well-being and reduce symptoms of depression among adult individuals (Sin & Lyubomirsky, 2009). According to Schotanus-Dijkstra et al. (2018), a positive psychology intervention (aimed at improving a person's ability to take notice of positive emotions, focusing on character strengths, coping with adversity, etc.) has also been found to reduce anxiety symptoms in adults. Interventions incorporating PPFs have been effective for youth as well. Specifically, youth who completed web-based interventions focusing on positive psychology domains including gratitude, optimism, and mindfulness were found to have lower levels of depression and stress and noticed improvement in their well-being (Manicavasagar et al., 2014). A preliminary investigation using a positive psychology intervention to build positive emotions and personality strengths for female adolescents has also shown to reduce psychopathic traits and increase positive affect (Xinying, 2017). Recent research highlights the value of applying positive psychology to decrease negative outcomes (e.g., psychological distress, alcohol abuse) at both the individual and population level (Huppert, 2009).

In order to benefit the welfare of American society, a major shift is necessary in terms of reducing widespread societal issues, including the mental health crisis. According to previous research, a positive psychological approach may be a solution to this problem (Schotanus-Dijkstra et al., 2018; Sin & Lyubomirsky, 2009). Another

societal concern in need of a solution is the high crime prevalence in the United States.

As an attempt to reduce delinquent behavior, it is prudent to examine the effectiveness of

PPFs (i.e., gratitude, self-esteem, posttraumatic growth) in decreasing offending rates in

the U.S..

Resilience Theory

The implementation of a positive psychological approach in order to mitigate risk

for delinquent behavior falls in line with Resilience Theory. This theory focuses on

understanding the process of how certain people flourish or follow a trajectory of typical

development after an adverse experience while other individuals struggle (Masten, 2013;

Yates et al., 2015). Resilience Theory maintains a focus on positive goals and protective

factors rather than emphasizing negative influences that adversity (e.g., risk factors

including racism, poverty, a traumatic event, etc.) may give rise to (Masten, 2011). The

purpose of resilience-informed practice is to promote positive adaptation and

development in high-risk contexts; therefore, through a resilience framework, positive

psychology can act as a tool to improve the lives of people who have experienced

hardship (Yates et al., 2015). A plethora of research suggests that there is potential for

individuals who have experienced a threat to adaptation to achieve positive outcomes,

further providing support for this theory (Goldstein & Brooks, 2013; Rutter, 2012). In

line with the goal of the current study focusing on the potential for positive psychology

factors (i.e., gratitude, self-esteem, posttraumatic growth) to lessen the possible influence

of risk factors (i.e., childhood maltreatment, low social support, low socioeconomic

status) on delinquent behavior, resilience research promotes the emphasis on protective

processes in development after adversity rather than focusing on deficit-based models of

intervention. Overall, the general theme of resilience models is to promote well-being as a driving factor in growth following hardship (Yates et al., 2015).

Delinquent Behavior

Delinquent behavior is a topic of great interest in research due to the high prevalence of crime in American society. Many definitions of crime exist; however, the consensus perspective defines it as "illegal behavior defined by existing criminal law" (Siegel, 2000). The most recent U.S. statistics show that an approximate 1.2 million violent crimes and 8.3 million property crimes were reported in 2014 (Uniform Crime Reporting Statistics, 2014). As for the total correctional population in 2016, approximately 6.6 million adults were under supervision of the correctional system (i.e., held in jail/prison or on probation/parole) in the United States (Kaeble & Cowhig, 2018). Fortunately, the correctional population has seen a steady decline from 2007 to 2014 (an 18% reduction); however, the U.S. is notorious for incarcerating the highest number of citizens in the world (Kaeble & Cowhig, 2018; Ukwuoma, 2018). Research posits that mandatory prison terms and the increase of minimum sentences for reoffenders as well as the return of parolees to prison for technical violations contribute to the high incarceration rate in the U.S. (Klein et al., 2004).

Data collection regarding delinquent behavior typically occurs by obtaining official arrest records or through methods of self-report. Limitations of the two methods are certainly present, such that official arrest records fail to detect unreported crime (Babinski et al., 2001) and individuals who complete self-report surveys may be hesitant to reveal negative information about themselves (Elliot & Ageton, 1980). Self-report surveys have become a popular alternative to official records because they seem to be a

more direct measure of criminal and delinquent behavior (i.e., youth involvement in illegal behavior as defined by criminal law); as such, these surveys are able to capture both reported and unreported crime and avoid biases as well as selective reporting (Elliot, 2017). The abundance of delinquent behavior in our society has led people to conduct research via self-report and reviewing official arrest records in order to better understand the factors involved and to identify ways to reduce criminal and delinquent behavior.

Positive Psychological Factors as Potential Protective Factors for Delinquent Behavior: Gratitude, Self-Esteem, & Posttraumatic Growth

A positive psychological approach may be one perspective to consider when trying to identify potential protective factors against delinquent behavior, but current research has scarcely addressed the link between positive psychology factors and delinquent behavior. One study that examined an adult population found that offenders (i.e., probationers and parolees) with higher levels of positive psychological variables (i.e., psychological flexibility, self-efficacy, optimism, hope) were less likely to have criminogenic risk factors (i.e., reliable predictors of recidivism such as antisocial attitudes, substance abuse, and dysfunctional relationships) and be charged, reconvicted, or imprisoned for a crime (Woldgabreal et al., 2016). Additionally, positive youth development programs that work to build competence and positive identity have also shown success in decreasing a number of problem behaviors (e.g., substance use, hitting, truancy, etc.) in both at-risk youth and youth in the general population (Catalano et al., 2004). In line with resilience-informed practice, these findings have introduced the possibility for discovering other PPFs that may protect against criminal and delinquent behavior among individuals.

Gratitude

One variable within positive psychology—gratitude—has received considerable attention in the field (Bono et al., 2004). Gratitude can be defined in a variety of ways including viewing it as an emotional state, affective trait, or mood (Rosenberg, 1998). Gratitude as an emotion is when an individual determines that something favorable has happened to them, and they recognize that someone else is largely responsible for this benefit (Watkins, 2007). In regard to this construct as an affective trait, McCullough and colleagues (2002) define it as a "generalized tendency to recognize and respond with grateful emotion to the roles of other people's benevolence in the positive experiences and outcomes that one obtains" (p. 112). Additionally, gratitude can also be defined as a mood which is a transient state (similar to an emotion) that has a greater duration and is in the background of awareness; it is often thought of as "generalized gratitude" (Lambert et al., 2009; Watkins, 2013).

Regardless of how it is defined, gratitude has been found to be a predictor of prosocial behavior (McCullough et al., 2008), behaviors that benefit others even when it proves costly to oneself. This finding suggests that gratitude may decrease a person's propensity toward crimes that negatively affect other individuals (e.g., violent crime); however, this relation has not been thoroughly examined in empirical research. It has been suggested that prosocial behaviors and antisocial behaviors (often involved in crimes that negatively affect others) likely exist on opposite ends of a continuum, thus making it unlikely that an individual will engage in both types of behavior (Graziano & Eisenberg, 1997; Shiner & Caspi, 2003). More clearly defined, antisocial behaviors are disruptive acts that include displaying hostility and aggression toward others (e.g.,

violation of rules, theft, defiance of authority, reckless disregard for self/others, etc.) as well as exhibiting callous-unemotional traits (e.g., lack of guilt, absence of empathy, etc.) that are often associated with delinquent behavior (DeWall et al., 2012; Frick & White, 2008). Bono and colleagues (2017) have also shown that the development of gratitude has resulted in decreased antisocial behavior in an adolescent population with additional research suggesting that people with higher levels of gratitude tend to be less aggressive. Overall, research promotes fostering gratitude within individuals in order to reduce the likelihood of negative or antisocial behavior including criminal engagement and delinquent behavior (Bono et al., 2017; Tweed et al., 2011).

Gratitude has also been found to be associated with many other positive outcomes including increased life satisfaction, greater physical and mental health and well-being, and lower psychopathology (Emmons & McCullough, 2003; McCullough et al., 2002; Robustelli & Whisman, 2018). Due to potential beneficial effects of gratitude, parental socialization of child gratitude has been a focus in current research (Hussong et al., 2019; Langley, Coffman, & Hussong, 2021; Rothenberg et. al, 2017), and interventions have been carried out in order to increase levels of gratitude in adults (Emmons & McCullough, 2003). Additionally, one study conducted in China found that gratitude interventions resulted in an increase in well-being and happiness and a decrease in negative affect among a prison population (Yang et al., 2018).

Self-Esteem

A variable that has been found to be associated with gratitude and is of interest within the area of positive psychology is self-esteem (Wood et al., 2010). Self-esteem can be viewed as an attitude, belief, or feeling involving a person's individual worth

(Rosenberg, 1965). Self-esteem has been seen as imperative to psychological growth (Rogers, 1961), and many studies have considered self-esteem to be a protective factor against mental health issues (e.g., leads to increases in personal confidence and positive feelings; Eisenbarth, 2012; Haine et al., 2003). However, it is important to be skeptical about the potential influences or benefits of high self-esteem—significantly high levels of self-esteem displayed in individuals (e.g., narcissists) may lead to the type of negative behavior that is often exhibited by bullies, aggressors, and rapists (Baumeister et al., 1996).

Additionally, the majority of research has found low self-esteem to be a contributing factor to delinquent behavior. For example, a recent meta-analysis revealed a statistically significant and negative association between self-esteem and crime and delinquency such that those with lower levels of self-esteem exhibited higher levels of crime and delinquency (Farrington, 2004; Mier & Ladny, 2018). Another study focusing on adolescents who were characterized by low self-esteem found that they were more likely to have greater mental and physical health issues and greater criminal behavior throughout adulthood (Trzesniewski et al., 2006). Criminals who exhibit lower levels of self-esteem are also more likely to consider their criminality as being a larger part of their social identity, thus potentially increasing their levels of criminal or delinquent behavior (Boduszek et al., 2013).

Posttraumatic Growth

With an increase in attention toward positive psychology, a focus has been directed at examining a PPF referred to as posttraumatic growth (PTG; Sheridan & Carr, 2020). PTG is formally defined as a positive psychological change that individuals

experience as a result of a highly stressful life event (e.g., traumatic event; Tedeschi, 1999; Tedeschi & Calhoun, 2004). Individuals can experience change in various domains of PTG including relating to others (i.e., interpersonal behavior), new possibilities (i.e., shift in goals), personal strength (i.e., change in identity), as well as spiritual change and appreciation of life (i.e., change regarding aspects of the belief system). Positive changes (e.g., increased self-efficacy, greater emotional expressiveness, etc.) within these domains have been found in individuals who have experienced PTG (Calhoun & Tedeschi, 1999). Evidence of PTG can occur following a variety of stressful life events. For example, PTG has been examined in survivors of natural disasters (e.g., earthquakes, floods) and has led to improvements in psychological functioning and well-being (Boullion et al., 2020; Dursun et al., 2016; McBride et al., 2018). Research also shows that PTG has influenced military veterans especially when these individuals use active coping or religious coping (e.g., praying, meditating, etc.) to better manage PTSD symptoms (Whealin et al., 2020). Additionally, research has suggested that individuals who have experienced childhood maltreatment are capable of experiencing posttraumatic growth following positive change processes (i.e., inner drive toward growth, vehicles of change, psychological changes) that tend to occur later in an individual's life (Woodward & Joseph, 2003).

Potential Risk Factors for Delinquent Behavior: Childhood Maltreatment, Low Social Support, & Low Socioeconomic Status

Childhood Maltreatment

A plethora of research has shown that individuals who have experienced some form of childhood maltreatment (e.g., emotional, physical, and sexual abuse; emotional

and physical neglect) are capable of experiencing posttraumatic growth. For example, as measured in adulthood, survivors of childhood trauma have reported the development of a positive post-trauma identity (consisting of increased self-acceptance and self-efficacy), an increase in empathy levels, and an elevation in prosocial behavior (i.e., "altruism born of suffering"). Specifically, therapeutic interventions have aided the development of a positive post-trauma identity and empathy levels in victims appear to increase due to the individual's ability to understand other's emotional and mental states by engaging in further perspective-taking. Additionally, the increase in prosocial behavior is likely to have resulted from a survivor's motivation to help others based on their personal suffering. Interventions promoting prosocial behavior may also be beneficial (Greenberg et al., 2018; Staub & Vollhardt, 2008; Walker-Williams & Fouche, 2017). Unfortunately, many victims of childhood maltreatment do not experience forms of PTG and are often burdened by a lifetime of negative psychological, social, and cognitive difficulties (Carr et al., 2010; Fitzpatrick et al., 2010). Indeed, as a result of the detrimental upbringing of those who have experienced childhood maltreatment, many of these individuals are confronted with negative outcomes in adulthood (e.g., mental health issues, continued victimization, and criminal behavior; Stinson et al., 2016). The unfortunate association between childhood maltreatment and delinquent behavior gives rise to the question of whether or not PTG can influence this link by reducing the potential presence of criminal or delinquent behavior.

Low Social Support

Social support is defined as the various resources provided to an individual via interpersonal ties (Cohen & Hoberman, 1983). The presence of social support in an

individual's life often acts as a protective factor and may contribute to resilience and increase the likelihood that people overcome early adverse experiences (Masten, 2001). Additionally, research has suggested that social support is associated with crime prevention due to the ability of social support systems to assist individuals in meeting expressive and individual needs (Cullen, 1994). If social support is present in a person's life when facing adversity, it is likely to lessen the impact of personal difficulties and enable individuals to cope in a noncriminal way (Cullen & Wright, 1997). According to this research, low social support can be considered a risk factor of delinquent behavior.

Low Socioeconomic Status

There is no widely agreed upon definition of socioeconomic status (SES), but this construct often takes into consideration an individual's access to a variety of resources (e.g., material goods, money, power, educational opportunities, etc.; Oakes & Rossi, 2003). Along with experiences of childhood maltreatment and low social support, low SES can also be viewed as a risk factor for delinquent behavior. One criminological theory—Merton's Strain Theory (Merton, 1957)—posits that society expects individuals to achieve culturally valued goals without providing the appropriate means to reach these goals. As a result, individuals in lower socioeconomic classes experience strain because they are given the fewest amount of social and economic opportunities—potentially leading individuals to attain society's goals via illegitimate means (i.e., crime, deviance). Those with low SES are also subjected to an increased likelihood of police contact or arrest and disadvantaged neighborhoods tend to receive a more aggressive police response (Hirschfield et al., 2006; Smith, 1986). Privilege and inequality are present within the social status of class and influence the level of crime control different groups

receive, resulting in biased policing and labeling of those from a lower SES (Barak et al., 2001). Social labeling plays a role in the development of delinquent behavior, such that when people (e.g., society, law enforcement) label an individual as "deviant," it may trigger processes that reinforce criminal or delinquent behavior due to the negative stereotype or stigma placed on the individual (i.e., Labeling Theory; Bernburg, 2019; Lemert, 1967).

Although the field of positive psychology is expanding, little research has been conducted to examine linkages between various positive psychological constructs and delinquent behavior. Consistent with findings stemming from Resilience Theory and as reviewed above, research highlights the value of applying positive psychology to decrease negative outcomes in individuals. However, the majority of research within positive psychology seems to focus on increasing levels of well-being among individuals (Emmons & McCullough, 2003; Huppert, 2009; Pezent, 2011; Schotanus-Dijkstra et al., 2018), which leads to a lack of attention toward finding ways to avoid undesirable outcomes or how to handle situations in which negative outcomes arise. It is recommended that positive psychology become more balanced by promoting strength and happiness, while decreasing aversive outcomes at the same time (Tweed et al., 2011). Thus, efforts to reduce delinquent behavior deserve more of a focus in the positive psychology literature.

The Current Study

In the current study, we first explored the linkages between potential risk factors (childhood maltreatment, low social support, and low SES), positive psychology factors (gratitude, self-esteem, posttraumatic growth), and delinquent behavior in young adults.

Then, we examined if each of the positive psychological factors moderated the link between these potential risk factors and delinquent behavior (see **Figure 1** for a conceptual model of the simple moderation models used in this study; Hayes, 2013).

Insert Figure 1 about here

Specifically, in Aim 1 of the study, we examined the extent to which **childhood maltreatment** was associated with **delinquent behavior** and explored if levels of **posttraumatic growth** moderated this link. We predicted that childhood maltreatment would be significantly associated with delinquent behavior, such that higher levels of childhood maltreatment would be associated with higher levels of delinquent behavior (**hypothesis 1**). Additionally, we predicted that this association would be moderated by **posttraumatic growth**, such that in individuals with a history of childhood maltreatment, those with higher levels of posttraumatic growth would endorse lower levels of delinquent behaviors (**hypothesis 2;** see **Figure 2** for a conceptual diagram of the model).

Insert Figure 2 about here

For Aim 2, we sought to determine the extent to which **social support** was associated with **delinquent behavior** and determine if levels of **gratitude** and **self-esteem** moderated this link. We predicted that social support would be significantly associated with delinquent behavior, such that lower levels of social support would be associated with higher levels of delinquent behavior (**hypothesis 3**). Additionally, we

predicted that this association would be moderated by **gratitude**, such that in individuals with low levels of social support, higher levels of gratitude would be associated with lower levels of delinquent behaviors (**hypothesis 4;** see **Figure 3** for a conceptual diagram of the model). Further, we predicted that this association between social support and delinquent behavior would also be moderated by **self-esteem**, such that in individuals with low levels of social support, higher levels of self-esteem would be associated with lower levels of delinquent behaviors (**hypothesis 5;** see **Figure 4** for a conceptual diagram of the model).

Insert Figures 3 and 4 about here

Finally, in Aim 3 of the study, we explored the extent to which **socioeconomic status** was associated with **delinquent behavior** and examined if levels of **gratitude** and **self-esteem** moderated this link. We posited that socioeconomic status would be significantly associated with delinquent behavior, such that lower levels of socioeconomic status would be associated with higher levels of delinquent behavior (**hypothesis 6**). We also predicted that this association would be moderated by **gratitude**, such that in individuals with lower levels of socioeconomic status, higher levels of gratitude would be associated with lower levels of delinquent behaviors (**hypothesis 7;** see **Figure 5** for a conceptual diagram of the model). Further, we predicted that this association between socioeconomic status and delinquent behavior would also be moderated by **self-esteem**, such that in individuals with low levels of socioeconomic

status, higher levels of self-esteem would be associated with lower levels of delinquent

behaviors (**hypothesis 8;** see **Figure 6** for a conceptual diagram of the model).

Insert Figures 5 and 6 about here

CHAPTER II

Method

Participants

Participants in the current study were recruited from the undergraduate research in psychology (PeRP) system at Sam Houston State University. To be eligible for this study, participants had to be (a) at least 18 years old and (b) able to speak/read English. Following completion of the study, participants received PeRP credit that was used to fulfill students' psychology course requirements or qualify as extra credit. Data were collected from a total of 535 participants; however, multiple participants were excluded from the study's analyses due to failure to complete the survey ($N = 3$), reporting an age under 18 years old or older than 29 years old ($N = 42$), failure to report age ($N = 3$), serving as an outlier ($N = 2$), and incorrectly answering 50% or more of the manipulation check questions ($N = 20$). The final sample of the current study consisted of 465 undergraduate students. Participants' ages ranged from 18 to 29 years old ($M = 20.17$, $SD = 1.85$), the age span that developmental psychologists refer to as "emerging adulthood" (Arnett, 2014). The majority of participants were female (81.7%), while 15.9% of participants were male, 1.5% gender non-conforming, and .9% were not specified. Participants were English-speaking, and the sample was White (40.6%), Hispanic (34.2%), Black (18.7%), Asian (2.8%), Native American (.2%), Pacific Islander (.2%), and 3.2% were not specified. Multiple quantitative statistical analyses (i.e., moderations, correlations) were conducted. G* Power using a power of .8, alpha of .05, and an effect size of .15 determined this sample size ($N = 465$) was deemed appropriate to detect significance in the current study's analyses.

Procedure

Prior to participant-involvement in the study, the university's Institutional Review Board (IRB) approved all study procedures. Participants were asked to complete an online survey via the Qualtrics platform, which included a series of questionnaires. First, they signed an informed consent form and filled out basic demographic information (e.g., age, gender, race/ethnicity, etc.). Then participants were instructed to complete a 30-item version of the Self-Reported Delinquency Scale (SRDS; Langhinrichsen-Rohling & Bowers, 2004; an adapted version of the SRDS, Elliot et al., 1985), the Gratitude Questionnaire-Six Item Form (GQ-6; McCullough et al., 2002), Rosenberg Self-Esteem Scale (SES; Rosenberg, 1965), Interpersonal Support Evaluation List (ISEL; Cohen & Hoberman, 1983; Cohen et al., 1985), the Child Trauma Questionnaire–Short Form (CTQ-SF; Bernstein & Fink, 1998; Bernstein et al., 2003), and the MacArthur Sociodemographic Questionnaire with additional questions about income and parental education levels (as a proxy for SES). In addition, participants who endorsed a history of childhood maltreatment or other traumatic experience (e.g., serious car accident, natural disaster, etc.) were administered the Posttraumatic Growth Inventory (PTGI, Calhoun & Tedeschi, 1999, 2004). At the end of the study, participants were instructed to read a debriefing form and were granted PeRP or extra credit for their participation in the study.

Measures

Delinquency

The Self-Reported Delinquency Scale (SRDS; 30-item revised version; see Appendix B) is a measure derived from the original SRDS which is a 24-item instrument that assesses involvement in delinquent behaviors such as theft, fighting, selling drugs,

etc. (Elliot et al., 1985). The version of the SRDS used in the current study is primarily

based on the 17-item revised version of the SRDS which includes items that are

appropriate to use with a college student population (Langhinrichsen-Rohling & Bowers,

2004). Additional items gathering information on participant drug and alcohol use were

also included in the measure. Participants were asked to self-report how often they had

engaged in each item over a 12-month period. This measure uses a 3-point Likert scale

format ranging from 1 (*never*) to 3 (*more than once*) with higher scores indicating higher

levels of delinquency. Example items include "How many times in the past year have you

purposely damaged property?," "How many times in the past year have you been

involved in gang fighting?," and "How many times in the past year have you sold

marijuana?" The 17-item version of the SRDS has displayed adequate internal

consistency in a college sample (α = .83). Similarly, the 30-item version of the SRDS

displayed adequate reliability (α = .79) in the current study.

Positive Psychological Factor Measures

Gratitude. The Gratitude Questionnaire-Six Item Form (GQ-6; see Appendix C)

is a 6-item self-report instrument that is used to measure an individual's tendency to

experience gratitude in daily life (McCullough et al., 2002). The GQ-6 uses a 7-point

Likert scale from 1 (strongly disagree) to 7 (strongly agree) with higher scores indicating

higher trait-level gratitude. Sample items include "I have so much in life to be thankful

for" and "I am grateful to a wide variety of people." An acceptable internal consistency

(α = .82), discriminant validity, and reliability has been reported for the GQ-6

(McCullough et al., 2002), along with additional studies displaying acceptable internal

consistencies (αs = .82, .87; Fagley, 2012; Killen & Macaskill, 2015). In the current study, the GQ-6 displayed adequate reliability (α = .76).

Self-Esteem. The Rosenberg Self-Esteem Scale (RSES; see Appendix D) is a 10-item instrument that indicates an individual's level of self-esteem (Rosenberg, 1965). Specifically, feelings about the self (i.e., positive and negative feelings) are measured. This instrument uses a 4-point Likert scale format from 1 (*strongly disagree)* to 4 *(strongly agree)* with higher scores indicating higher self-esteem. Example items include "On the whole, I am satisfied with myself" and "At times I think I am no good at all." A sufficient internal structural equivalence across nations has been reported for the RSES as well as an acceptable internal reliability (α = .88) for a study conducted in the United States (Schmitt & Allik, 2005). In the current study, the RSES displayed high reliability (α = .89).

Posttraumatic Growth. The Posttraumatic Growth Inventory (PTGI; see Appendix E) is a 21-item measure used to assess the possible areas of growth and positive change an individual may experience following a personal crisis/disaster (Calhoun & Tedeschi, 1999, 2004). PTG is formally defined as a positive psychological change that individuals experience as a result of a highly stressful life event (e.g., traumatic event; Tedeschi, 1999; Tedeschi & Calhoun, 2004). This instrument consists of five factors including Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life. This instrument uses a 6-point Likert scale format from 0 (I did not experience this change as a result of my crisis) to 5 (I experienced this change to a very great degree as a result of my crisis) with higher scores indicating higher levels of PTG. The PTGI is scored by summing all item responses and specific factors

can be scored by summing item responses on each factor. Example items include "I changed my priorities about what is important in life" and "I have a greater appreciation for the value of my own life." The PTGI has displayed acceptable internal consistencies (αs = .94) in previous studies (Boullion et al., 2020; Solomon & Laufer, 2005). The PTGI also displayed an acceptable reliability (α = .94) in the current study. This measure was solely administered to participants in the current study who endorsed a history of childhood maltreatment or other trauma.

Risk Factor Measures

Childhood Maltreatment. The Child Trauma Questionnaire–Short Form (CTQ-SF; see Appendix F) is a 28-item self-report measure that assesses histories of childhood maltreatment in adult individuals and is based on the original 70-item CTQ (Bernstein et al., 1994, Bernstein & Fink, 1998; Bernstein et al., 2003). This instrument consists of five clinical subscales that assess emotional, physical, and sexual abuse along with physical and emotional neglect. These forms of abuse and neglect are defined as follows: emotional abuse—"verbal assaults on a child's sense of worth or well-being or any humiliating or demeaning behavior directed toward a child by an adult or older person;" physical abuse—bodily assaults on a child by an adult or older person that posed a risk of or resulted in injury;" sexual abuse—"sexual contact or conduct between a child younger than 18 years of age and an adult or older person;" physical neglect—"the failure of caretakers to provide for a child's basic physical needs, including food, shelter, clothing, safety, and health care;" and emotional neglect—" the failure of caretakers to meet children's basic emotional and psychological needs, including love, belonging, nurturance, and support." This measure uses a 5-point Likert scale format ranging from 1

(*never true*) to 5 (*very often true*) with higher scores indicating a greater severity of childhood abuse or neglect. Example items include "When I was growing up, I didn't have enough to eat" and "When I was growing up, I got hit so hard by someone in my family that I had to see a doctor or go to the hospital." The CTQ-SF has displayed adequate to excellent internal consistencies ranging from $\alpha = .61$ to $\alpha = .92$ on each of the five clinical subscales when based on a normative community sample (Bernstein et al., 2003). Similarly, the five clinical subscales of the CTQ-SF displayed reliabilities ranging from $\alpha = .67$ to $\alpha = .93$ in the current study. In addition, the reliability of the 28-item CTQ-SF ($\alpha = .80$) used in the current study was also deemed acceptable.

Social Support. The Interpersonal Support Evaluation List (ISEL; see Appendix G) is a 40-item instrument that measures an individual's perception of the availability of social support in their life (Cohen & Hoberman, 1983; Cohen et al., 1985). Four different functions of social support are assessed using the ISEL: Tangible or "perceived availability of material aid", Belonging or "perceived availability of people one can do things with", Self-esteem or "perceived availability of a positive comparison when comparing one's self to others", and Appraisal or "perceived availability of someone to talk to about one's problems." This instrument uses a 4-point Likert scale format from 0 (definitely false) to 3 (definitely true) with higher scores indicating higher levels of social support. Example items include "There are several people that I trust to help solve my problems" and "There is someone who takes pride in my accomplishments." The ISEL has displayed high internal consistencies ($\alpha = .91. .93, .95$) in various studies (Bauman et al., 2012; Ghesquiere et al., 2017). In the current study, the ISEL also displayed a high reliability ($\alpha = .94$).

Socioeconomic Status (SES). For the purposes of the current study, we measured socioeconomic status by gathering self-report information on the following five items: (1) approximate family/individual income from the last year ranging from 0 (*$9,999 or less*) to 13 (*$200,000 or more*); (2 and 3) educational background of each primary caregiver using an 8-point scale ranging from 1 (*some high school*) to 8 (*completed graduate or professional degree*); and, (4 and 5) the MacArthur Sociodemographic Questionnaire in which respondents indicated their parents' SES relative to individuals in the United States broadly as well as the SES of their family of origin (Adler & Stewart, 2007; see Appendix H). The MacArthur Sociodemographic Questionnaire consists of having respondents view a SES ladder with ten rungs and asking them to specify where they think they are in relation to others in society (higher rungs indicate higher levels of perceived SES; Adler & Stewart, 2007). Of note, participants' responses regarding the five items were standardized using z-scores, and the average of the items was calculated to produce a single socioeconomic status score for each participant.

Manipulation Check

Throughout the course of the study, participants were asked to respond to a series of manipulation check questions. These questions were used to identify and exclude participants who did not pay close attention to each of the questionnaires. An example of a manipulation check question within the survey included a question similar to "Please select the response, *strongly disagree*, to demonstrate participant attention." Data from participants who answered incorrectly on two or more of the four manipulation check questions ($N = 20$) were excluded from the study analyses.

CHAPTER III

Results

Preliminary Data Analysis

Analyses were assessed using the Statistical Package for Social Sciences (SPSS). Following data collection, we ensured the dataset was clean and accurate. For example, if participants did not complete the survey, did not report their age, were under 18 years old or older than 29 years old, or incorrectly answered 50% or more of the manipulation check questions, they were excluded from the final sample. Preliminary data analyses were conducted in order to confirm that assumptions of the statistical methods were met including linearity, homoscedasticity/heteroscedasticity, normality, and multicollinearity. Descriptive statistics as well as correlations between the current study's variables are included in **Table 1** and **Table 2.**

Insert Tables 1 and 2 about here

Aim 1 Analyses

In order to examine the extent to which childhood maltreatment was associated with delinquent behavior as well as determine if posttraumatic growth moderated this link, we conducted bivariate correlation and moderation analyses to assess hypotheses 1 and 2. Of note, the overall CTQ-SF score for each participant (considering all five types of childhood maltreatment) was used as the variable denoting childhood maltreatment in Aim 1 analyses. In addition, these analyses exclusively included participants who responded to the PTGI in reference to an experience of childhood maltreatment.

Hypothesis 1

A bivariate correlation revealed a significant positive correlation between childhood maltreatment and delinquent behavior ($r = .10$, $p = .05$). In support of hypothesis 1, results suggested that higher levels of childhood maltreatment were associated with higher levels of delinquent behavior.

Hypothesis 2

To assess the second hypothesis, the PROCESS macro for SPSS was used to conduct a 2-way interaction analysis. For this moderation model, childhood maltreatment was entered as the predictor variable, posttraumatic growth was examined as the moderator variable, and delinquent behavior was examined as the outcome variable. This hypothesis was not supported, as the overall moderation model was not significant, $F_{(3, 227)} = .19$, $p = .91$, and there was no childhood maltreatment x posttraumatic growth interaction effect on delinquent behavior, $\beta = -.001$, $p = .57$.

To further explore this research question, exploratory analyses were conducted. Results revealed a significant negative correlation between childhood maltreatment and posttraumatic growth ($r = -.13$, $p = .05$). Specifically, results suggested that emotional abuse, sexual abuse, and emotional neglect (with scores derived from the corresponding CTQ-SF subscales) were significantly negatively correlated with posttraumatic growth (rs = -.13, -.13, and -.237; ps = .04, .04, and $p < .001$, respectively). In other words, higher levels of childhood maltreatment were associated with lower levels of posttraumatic growth.

Separate exploratory moderation analyses were also conducted for the five types of childhood maltreatment (i.e., physical, emotional, and sexual abuse; physical and

emotional neglect). Results revealed no significant childhood maltreatment type x

posttraumatic growth interactions on delinquent behavior, $ps > .10$.

Aim 2 Analyses

In order to examine the extent to which social support was associated with

delinquent behavior as well as determine if gratitude and/or self-esteem moderated this

link, we conducted bivariate correlation and moderation analyses to assess hypotheses 3,

4, and 5.

Hypothesis 3

A bivariate correlation revealed that there was no significant correlation between

social support and delinquent behavior ($r = -.08, p = .10$). Contrary to hypothesis 3,

results suggested that social support was not associated with delinquent behavior.

Hypothesis 4

A moderation analysis was conducted to assess the fourth hypothesis, with social

support entered as the predictor variable, gratitude entered as the moderator variable, and

delinquent behavior was examined as the outcome variable. The overall moderation

model was significant, $F_{(3, 379)} = 6.74, p < .001$, and there was a significant gratitude x

social support interaction effect on delinquent behavior, $\beta = -.05, p = <.001$. Examination

of conditional effects revealed that, for those with lower levels of gratitude (1 SD below

the GQ-6 mean), social support was positively associated with delinquent behavior ($\beta =$

$.04, p = .05$). Specifically, these results suggested that for individuals with lower levels of

gratitude, lower levels of social support were associated with lower levels of delinquent

behavior. In addition, those with higher levels of gratitude (1 SD above the GQ-6 mean),

social support was negatively associated with delinquent behavior ($\beta = -.05, p = .02$).

These results revealed that for individuals with higher levels of gratitude, lower levels of social support were associated with higher levels of delinquent behavior (see **Figure 7** for a graph of the interaction effect). However, when comparing means of low social support (i.e., a primary risk factor of the study) at each level of gratitude (i.e., low, medium, high; Ms = 36.84, 36.71, and 36.59, respectively), there was no significant difference (β = -.14, p = .73). Thus, when specifically examining individuals with low levels of social support, higher levels of gratitude were not associated with lower levels of delinquent behavior, which does not provide support for Hypothesis 4.

Insert Figure 7 about here

Of note, an additional exploratory bivariate correlation was also conducted which revealed a significant negative correlation between gratitude and delinquent behavior, such that higher levels of gratitude were associated with lower levels of delinquent behavior (r = -.11, p = .02).

Hypothesis 5

To assess the fifth hypothesis, a moderation model was run with social support entered as the predictor variable, self-esteem entered as the moderator variable, and delinquent behavior was examined as the outcome variable. The overall moderation model was significant, $F_{(3, 358)}$ = 5.84, p < .001, and there was a significant self-esteem x social support interaction effect on delinquent behavior, β = .01, p = .005. Examination of conditional effects revealed that there were no associations between social support and delinquent behavior for those with higher levels of self-esteem (1 *SD* above the self-

esteem mean; β = .03, *p* = .14) or for those with lower levels of self-esteem (1 *SD* below

the self-esteem mean; β = -.04, *p* = .08; see **Figure 8** for a graph of the interaction effect).

However, Johnson-Neyman results indicated that when the self-esteem score reached

30.83 (*M* = 22.51), social support and delinquent behavior had a significant positive

association, β = .04, *p* = .05. For instance, as self-esteem increased beyond 30.83 (1.44

SD above the mean), there was a significant positive association between social support

and delinquent behavior, such that higher levels of social support were associated with

higher delinquent behavior (with the highest self-esteem score of 37.03), β = .08, *p* = .01.

However, when comparing means of low social support (i.e., a primary risk factor of the

study) at each level of self-esteem (i.e., low, medium, high; *M*s = 36.26, 36.52, and

36.78, respectively), there was no significant difference (β = .04, *p* = .52). Thus, when

specifically examining individuals with low levels of social support, higher levels of self-

esteem were not associated with lower levels of delinquent behavior, which does not

provide support for Hypothesis 5.

Insert Figure 8 about here

Aim 3 Analyses

In order to examine the extent to which socioeconomic status was associated with

delinquent behavior as well as determine if gratitude and self-esteem moderated this link,

we conducted bivariate correlation and moderation analyses to assess hypotheses 6, 7,

and 8.

Hypothesis 6

A bivariate correlation revealed that there was no significant correlation between socioeconomic status and delinquent behavior ($r = -.05$, $p = .33$). Contrary to hypothesis 6, results suggested that socioeconomic status was not associated with delinquent behavior.

Hypothesis 7

A moderation analysis was conducted to assess the seventh hypothesis, with socioeconomic status entered as the predictor variable, gratitude entered as the moderator variable, and delinquent behavior was examined as the outcome variable. The overall moderation model was not significant, $F_{(3, 365)} = 2.06$, $p = .11$, and there was no socioeconomic status x gratitude interaction effect on delinquent behavior, $\beta = -.32$, $p = .77$. Thus, the seventh hypothesis was not supported.

Hypothesis 8

Another moderation model was conducted to assess the eighth hypothesis, including socioeconomic status as the predictor variable, self-esteem as the moderator variable, and delinquent behavior as the outcome variable. The overall moderation model was not significant, $F_{(3, 340)} = 2.22$, $p = .09$, and there was no socioeconomic status x self-esteem interaction effect on delinquent behavior, $\beta = .05$, $p = .81$. No support was found for the eighth hypothesis.

CHAPTER IV

Discussion

The purpose of the current study was to contribute to a new and developing area of research within positive psychology. The majority of positive psychology research seems to focus on improving well-being rather than determining how to aid individuals in avoiding undesirable outcomes or handle situations in which negative outcomes arise (Emmons & McCullough, 2003; Huppert, 2009; Pezent, 2011; Schotanus-Dijkstra et al., 2018). In the current study, it was expected that positive psychological factors (i.e., gratitude, self-esteem, and posttraumatic growth) would be protective against delinquent behavior in situations in which certain risk factors were present (e.g., after childhood maltreatment, low levels of social support, and low socioeconomic status).

As hypothesized, higher levels of childhood maltreatment were associated with higher levels of delinquent behavior. However, it was found that posttraumatic growth was not protective against delinquent behavior in those who had experienced childhood maltreatment. Additional results revealed that higher levels of childhood maltreatment (i.e., emotional abuse, sexual abuse, and emotional neglect) were associated with lower levels of posttraumatic growth. Although the results from the moderation analysis do not support the study's hypothesis, they fall in line with literature that suggests many victims of childhood maltreatment do not experience forms of posttraumatic growth and are often burdened by psychological, social, and cognitive difficulties (Carr et al., 2010; Fitzpatrick et al., 2010). In addition, Woodward and Johnson (2010) noted that individuals experience posttraumatic growth through positive changes processes; thus, it is possible that older adults (e.g., older than the current study's sample of "emerging

adults"), who have had more time to process their trauma, would have been more likely to experience posttraumatic growth compared to younger participants from an undergraduate population.

Results also suggested that social support was not associated with delinquent behavior, and gratitude was not protective against delinquent behavior in those who endorsed low social support. However, it is important to note the general overall trend of the data in regard to the moderating role of gratitude between social support and delinquent behavior. For individuals with low levels of gratitude, those who had higher levels of social support reported higher levels of delinquent behavior compared to individuals with low levels of social support. The opposite was true for individuals with high levels of gratitude—those who had higher levels of social support reported lower levels of delinquent behavior compared to individuals with low levels of social support. These results address the benefit of maintaining high levels of both gratitude and social support, such that individuals who display both are more likely to engage in lower levels of delinquent behavior.

It was also found that self-esteem was not protective against delinquent behavior in those who endorsed low social support. Again, noting the general overall trend of the data in regard to the moderating role of self-esteem between social support and delinquent behavior is imperative. In particular, for individuals with very high levels of self-esteem, high levels of social support were associated with higher levels of delinquent behavior. This finding aligns with research that suggests that significantly high levels of self-esteem displayed in individuals (e.g., narcissists) may lead to the type of negative behavior exhibited by bullies, aggressors, etc. (Baumeister et al., 1996). In addition,

research has also suggested that grandiose and non-pathological narcissism may be related to higher levels of perceived social support due to the tendency of narcissists to feel superior and beliefs in their ability to influence and attract others (Barry et al., 2014). These research findings provide rationale for the results presented in the current study.

Results also revealed that socioeconomic status was not associated with delinquent behavior, and neither gratitude nor self-esteem were protective against delinquent behavior in those who endorsed low socioeconomic status. There is potential that these results may have been due to an inadequate measurement of socioeconomic status of the current study's population. Replication of these results (using an alternative socioeconomic status measure) would be helpful in confirming the lack of association between low socioeconomic status and delinquent behavior as well as the ineffectiveness of gratitude and self-esteem as moderating variables.

Limitations

Multiple limitations were present in the current study and likely influenced the study's results. First, generalizability is limited as data collection occurred within the context of a global pandemic (i.e., COVID-19), which is likely to have greatly influenced participant responses. For example, research indicates that levels of social support were affected by the pandemic due to the increase in social isolation, which led to individuals engaging in less effective, alternative methods of social support (e.g., communication via phone, text, video conferencing; Moore & Lucas, 2020). There have also been multiple socioeconomic effects of COVID-19 including the increase of unemployment rates and decline in hours of work for individuals worldwide (Rio-Chanona et al., 2020). In addition, the positive psychological factors of gratitude and self-esteem have both been

found to be associated with mental health outcomes (Eisenbarth, 2012; Robustelli &

Whisman, 2018), and recent research shows that COVID-19 has had consequences on

mental health problems among individuals (Kumar & Nayar, 2021). Thus, these positive

psychological variables are likely affected as well. Of particular importance, participant

responses for engagement in delinquent behavior were also likely influenced by the

pandemic (e.g., participants were asked to endorse how often they engaged in each

delinquent behavior over a 12-month period). Due to mandatory quarantine, limited

social interaction, and business closures in response to the COVID-19 outbreak, research

has shown a dramatic decline in crime rates as well as a decline in the opportunity to

commit crime (Buchanan et al., 2020); therefore, participants' reports of delinquent

behavior in the current study were likely lower than average. The generalizability of the

study findings may be further limited, as this was a convenience sample including

undergraduate students with a lack of representation and diversity in regard to ethnicity,

gender, age, and other important demographic variables.

Another limitation of the current study was the potential inadequate measurement

of the socioeconomic status variable for the particular population in which data was

collected from (i.e., a sample of 18- to 29-year-old undergraduates). Individuals within

this age range may differ in terms of how they define their socioeconomic status

(particularly in regard to income-related information); thus, the measure administered

may not be a good indicator of socioeconomic status. For example, undergraduate

students vary greatly in financial support received from outside sources (e.g., family

contribution, student loans, employment, scholarships, etc.), which may result in varied

participant endorsements on the administered measure. Lastly, our results are based on

retrospective self-report—findings may be affected by social bias, recall bias, or by an individual's current level of functioning.

Conclusions and Future Directions

Overall, the findings did not provide support for the hypotheses of the current study. In particular, positive psychological factors (i.e., gratitude, self-esteem, and posttraumatic growth) did not protect against delinquent behavior in situations in which certain risk factors were present (e.g., after childhood maltreatment, low social support, and low socioeconomic status). However, results regarding the moderating role of gratitude between social support and delinquent behavior provides evidence that high levels of gratitude can aid in contributing to a decrease in negative outcomes (e.g., delinquency) in individuals, when paired with other protective factors (e.g., high levels of social support). In addition, exploratory analyses suggested that higher levels of gratitude were also associated with lower levels of delinquent behavior, which provides support for the notion that positive psychology plays a role in combatting negative outcomes.

Due to the limitations of this study, all hypothesized associations should be explored further in future research outside of the context of COVID-19. Further research should also control for individuals' experiences related to COVID-19 stress. In addition, it is necessary to gather data from a more diverse sample in terms of age, race/ethnicity, gender, and cultural background to result in more generalizable findings. It would also be interesting to conduct future research using a forensically involved population (e.g., juvenile offenders) due to the importance of discovering effective, resilience-informed methods of reducing delinquency in vulnerable populations. Findings from this study are promising in that they show the potential for gratitude interventions to be implemented in

certain settings (e.g., forensic settings) with the possibility of reducing delinquent behavior. However, this study must be replicated, and further research must be conducted using various populations to substantiate results and determine the effectiveness of gratitude interventions in decreasing delinquent behavior across multiple settings.

REFERENCES

Adler, N., & Stewart, J. (2007). The MacArthur scale of subjective social status. MacArthur Research Network on SES & Health. Retrieved from http://www.macses.ucsf. edu/Research/Psychosocial/subjective.php.

Arnett, J. J., Žukauskienė, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18–29 years: implications for mental health. *The Lancet Psychiatry*, *1*(7), 569–576. doi:10.1016/s2215-0366(14)00080-7

Babinski, L. M., Hartsough, C. S., & Lambert, N. M. (2001). A comparison of self-report of criminal involvement and official arrest records. *Aggressive Behavior, 27*(1), 44-54. http://dx.doi.org/10.1002/1098-2337(20010101/31)27:1<44::AID-AB4>3.0.CO;2-O

Barak, G., Flavin, J., & Leighton, P. (2001). *Class, race, gender, and crime: Social realities of justice in America.* Roxbury Publishing Company.

Barry, C. T., Kauten, R. L., & Lui, J. H. L. (2014). Self-perceptions of empathy and social support as potential moderators in the relation between adolescent narcissism and aggression. *Individual Differences Research, 12*(4), 170-179.

Bauman, E. M., Haaga, D. A. F., Kaltman, S., & Dutton, M. A. (2012). Measuring social support in battered women: Factor structure of the Interpersonal Support Evaluation List (ISEL). *Violence Against Women, 18*(1), 30-43. http://dx.doi.org/10.1177/1077801212436523

Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review, 103*(1), 5–33.

Bentler, P.M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological methods and research, 16*(1), 78-117. https://doi.org/10.1177/0049124187016001004

Bernburg, J. G. (2019). Labeling Theory. In M. D. Krohn, N. Hendrix, G. P. Hall, & A. J. Lizotte (Eds.), *Handbook of Crime and Deviance, Second Edition* (pp. 176-196). Springer Nature Switzerland.

Bernstein, D. P., & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective self-report*. The Psychological Corporation.

Bernstein, D. P., Fink, L., Handelsman, L., Foote, J., Lovejoy, M., Wenzel, K., Sapareto, E., & Ruggiero, J. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. *The American Journal of Psychiatry, 151*(8), 1132-1136. http://dx.doi.org/10.1176/ajp.151.8.1132

Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., Stokes, J., Handelsman, L., Medrano, M., Desmond, D., & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect, 27*(2), 169-190. http://dx.doi.org/10.1016/S0145-2134(02)00541-0

Boduszek, D., Adamson, G., Shevlin, M., Mallett, J., & Hyland, P. (2013). Criminal social identity of recidivistic prisoners: The role of self-esteem, family and criminal friends. *Journal of Police and Criminal Psychology, 28*, 15–25. http://dx.doi.org/10.1007/s11896-012-9105-7

Bono, G., Emmons, R. A., & McCullough, M. E. (2004). Gratitude in practice and the

practice of gratitude. In P. A. Linley & S. Joseph (Eds.), *Positive psychology in*

practice (pp. 256-268). Wiley & Sons.

Bono, G., Froh, J. J., Disabato, D., Blalock, D., McKnight, P., & Bausert, S. (2017).

Gratitude's role in adolescent antisocial and prosocial behavior: A 4-year

longitudinal investigation. *The Journal of Positive Psychology, 14*(2), 230-243.

http://dx.doi.org/10.1080/17439760. 2017.1402078

Boomsma, A. (1982). The robustness of LISREL against small sample sizes in factor

analysis models. In K. G. Joreskog and H. Wold (Eds.), *Systems under indirect*

observation: Causality, structure, prediction (Part 1) (pp.149-173). Amsterdam:

North-Holland.

Boomsma, A. (1985). Nonconvergence, improper solutions, and starting values in

LISREL maximum likelihood estimation. *Psychometrika, 50*, 229-242.

https://doi.org/10.1007/BF02294248

Bollen, K. A. (1989). A new incremental fit index for general structural equation models.

Sociological methods and research, 17(3), 303-316. https://doi.org/10.1177/004

9124189017003004

Boullion, G. Q., Pavlacic, J. M., Schulenberg, S. E., Buchanan, E. M., Steger, M. F.

(2020). Meaning, social support, and resilience as predictors of posttraumatic

growth: A study of the Louisiana flooding of August 2016. *American Journal of*

Orthopsychiatry, 90(5), 578-585. http://dx.doi.org/10.1037/ort0000464

Buchanan, M., Castro, E. D., Kushner, M., & Krohn, M. D. (2020). It's f**ing chaos:

COVID-19's impact on juvenile delinquency and juvenile justice. *American*

Journal of Criminal Justice, 45, 578-600. http://dx.doi.org/10.1007/s12103-020-09549-x

Calhoun, L., & Tedeschi, R. (1999). *Facilitating posttraumatic growth: A clinician's guide*. Erlbaum.

Calhoun, L., & Tedeschi, R. (2004). The foundations of posttraumatic growth: New considerations. *Psychological Inquiry*, *15*, 93–102. http://dx.doi.org/10.1207/s15327965pli1501_03

Catalano R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *The Annals of the American Academy of Political and Social Science, 591*(1), 98-124. https://doi.org/10.1177/0002716203260102

Carr, A., Dooley, B., Fitzpatrick, M., Flanagan, E., Flanagan-Howard, R., Tierney, K., White, M., Daly, M., & Egan, J. (2010). Adult adjustment of survivors of institutional child abuse in Ireland. *Child Abuse & Neglect, 34*(7), 477-489. http://dx.doi.org/10.1016/j.chiabu.2009.11.003

Cohen, S., & Hoberman, H. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology, 13*(2), 99-125. https://doi.org/10.1111/ j.1559-1816.1983.tb02325.x

Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. M. (1985). Measuring the functional components of social support. In G. Sarason & B. R. Sarason (Eds.), *Social support: Theory, research, and applications* (pp. 73-94). Martinus Nijhoff.

Cullen, F. T. (1994). Social support as an organizing concept for criminology:
Presidential address to the Academy of Criminal Justice Sciences. *Justice Quarterly, 11*(4), 527-559. https://doi.org/10.1080/07418829400092421

Cullen, F. T., & Wright, J. P. (1997). Liberating the anomie-strain paradigm: Implications from social support theory. In Nikos Passas and Robert Agnew (Eds.), *The future of anomie theory* (pp. 187-206). Northeastern University Press.

DeWall, C. N., Lambert, N. M., Pond, R. J., Kashdan, T. B., & Fincham, F. D. (2012). A grateful heart is a nonviolent heart: Cross-sectional, experience sampling, longitudinal, and experimental evidence. *Social Psychological and Personality Science, 3*(2), 232–240. https://doi.org/10.1177/1948550611416675

Dursun, P., Steger, M. F., Bentele, C., Schulenberg, S. E. (2016). Meaning and posttraumatic growth among survivors of the September 2013 Colorado floods. *Journal of Clinical Psychology, 72*(12), 1247-1263. https://doi.org/10.1002/jclp.22344

Eisenbarth, C. (2012). Does self-esteem moderate the relations among perceived stress, coping, and depression? *College Student Journal, 46,* 149–157.

Elliot, D. (2017). Self-report crime surveys. *Oxford Bibliographies*. Oxford University Press. Retrieved fromhttps://www.oxfordbibliographies.com/view/document/obo-9780195396607/obo-9780195396607-0221.xml

Elliot, D. S., & Ageton, S. S. (1980). Reconciling race and class differences in self-reported and official estimates of delinquency. *American Sociological Review, 45*(1), 95–110.

Elliot, D. S., D. Huizinga, & Ageton, S. S. (1985). *Explaining delinquency and drug use*.

    Sage Publications.

Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An

    experimental investigation of gratitude and subjective well-being in daily life.

    Journal of Personality and Social Psychology, 84(2)*, 377-389.

    https://doi.org/10.1037/0022-3514.84.2.377

Fagley, N. S. (2012). Appreciation uniquely predicts life satisfaction above

    demographics, the Big 5 personality factors, and gratitude. *Personality and*

    Individual Differences, *53*(1), 59-63. http://dx.doi.org/10.1016/j.paid

    .2012.02.019

Farrington, D. P. (2004). Conduct disorder, aggression, and delinquency. In R. M. Lerner

    & L. Steinberg (Eds.), *Handbook of adolescent psychology* (pp. 627-664). Wiley

    & Sons.

Fitzpatrick, M., Carr, A., Dooley, B., Flanagan-Howard, R., Flanagan, E., Tierney, K.,

    White, M., Daly, M., Shevlin, M., Egan, J. (2010). Profiles of adult survivors of

    severe sexual, physical, and emotional institutional abuse in Ireland. *Child Abuse*

    Review, 19(6), 387-404. http://dx.doi.org/10.1002/car.1083

Frick, P. J., & White, S. F. (2008). Research review: The importance of callous-

    unemotional traits for developmental models of aggressive and antisocial

    behavior. *The Journal of Child Psychology and Psychiatry, 49*(4), 359-375.

    http://dx.doi.org/10.1111/j.1469-7610.2007.01862.x

Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early

    adolescents: An experimental study of gratitude and subjective well-being.

Journal of School Psychology, 46(2), 213-233.

http://dx.doi.org/10.1016/j.jsp.2007.03.005

Ghesquiere, A., Schwartz, T., Wang, Y., Mauro, C., Skritskaya, N., Shear, M. K. (2017). Performance and psychometric properties of the Interpersonal Support Evaluation List (ISEL) in older adults with complicated grief. *Journal of Affective Disorders, 218*, 388-393. http://dx.doi.org/10.1016/j.jad.2017.05.004

Graziano, W. G., & Eisenberg, N. (1997). Agreeableness. A dimension of personality. In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 795–824). Academic Press.

Greenberg, D. M., Baron-Cohen, S., Rosenberg, N., Fonagy, P., Rentfrow, P. J. (2018). Elevated empathy in adults following childhood trauma. *PLoS ONE, 13*(10), e0203886. http://dx.doi.org/10.1371/journal.pone.0203886

Goldstein, S., & Brooks, R. B. (2013). *Handbook of resilience in children* (2nd ed.). New York: Springer.

Haine, R. A., Ayers, T. S., Sandler, I. N., Wolchik, S. A., & Weyer, J. L. (2003). Locus of control and self-esteem as stress moderators or stress mediators in parentally bereaved children. *Death Studies, 27*(7)*,* 619–640. http://dx.doi.org/10.1080/07481180390220807

Hammer, J. H., & Brenner, R. E. (2019). Disentangling gratitude: A theoretical and psychometric examination of the Gratitude and Resentment and Appreciation Test-Revised short (GRAT-RS). *Journal of Personality Assessment, 101*(1), 96-105. http://dx.doi.org/10.1080/00223891.2017.1344986

Hayes, A. F. (2013). *Introduction to mediation, moderation a conditional process analysis: A regression-based approach.* Guilford Press.

Hirschfield, P., Maschi, T., White, H. R., Traub, L. G., Loeber, R. (2006). Mental health and juvenile arrests: Criminality, criminalization, or compassion? *Criminology, 44*(3), 593-630. http://dx.doi.org/10.1111/j.1745-9125.2006.00058.x

Huppert, F. (2009). An approach to reducing disorder and improving well-being. *Perspectives on Psychological Science, 4*(1)*,* 108-111. http://dx.doi.org/10.1111/j.1745-6924.2009.011 00.x

Hussong, A. M., Langley, H. A., Thomas, T.E., Coffman, J. L., Halberstadt, A. G., Costanzo, P. R., Rothenberg, W. A. (2019). Measuring gratitude in children. *Journal of Positive Psychology, 14,* 563-575. https://doi-org/10.1080/17439760.2018.1497692

Jackson, S. A., Thomas, P., Marsh, H., & Smethurst, C. J. (2001). Relationships between flow, self-concept, psychological skills, and performance. *Journal of Applied Sport Psychology, 13*(2), 129-153. http://dx.doi.org/10.1080/104132001753149865

Kaeble, D. & Cowhig, M. (2018). *Correctional populations in the United States, 2016.* Washington, DC: Bureau of Justice Statistics.

Kerr, S. L., O'Donovan, A., & Pepping, C. A. (2015). Can gratitude and kindness interventions enhance well-being in a clinical sample? *Journal of Happiness Studies, 16*(1), 17-36. http://dx.doi.org/10.1007/s10902-013-9492-1

Killen, A., & Macaskill, A. (2015). Using a gratitude intervention to enhance well-being in older adults. *Journal of Happiness Studies, 16*, 947-964. http://dx.doi.org/10.1007/s10902-014-9542-3

Klein, S., Tolbert, M., Bugarin, R., Cataldi, E. F., & Tauschek, G. (2004). *Correctional education: Assessing the status of prison programs and information needs.* Office of Safe and Drug-Free Schools, U.S. Department of Education. https://files.eric.ed.gov/full text/ED543577.pdf

Kline, R. B. (2015). *Principles and practice of structural equation modeling.* Guilford Publications.

Kumar, A., & Nayar, K. R. (2021). COVID 19 and its mental health consequences. *Journal of Mental Health, 30*(1), 1-2. http://dx.doi.org/10.1080/09638237.2020. 1757052

Langhinrichsen-Rohling, J., & Bowers, D. (2004). Suicidal behavior, negative affect, gender, and self-reported delinquency in college students. *Suicide and Life-threatening Behavior, 34*(3), 255-266. http://dx.doi.org/10.1521/suli.34.3.255.42773

Langley, H. A., Coffman, J. L., & Hussong, A. M. (2021). The socialization of gratitude: How parent-child conversations impact children's memory for gratitude-related events. In Bjorklund, D., Baker-Ward, L., & Coffman, J. (Eds.), *The Development of Children's Memory: The Scientific Contributions of Peter A. Ornstein.* Cambridge University Press.

Lemert, E. (1967). *Human deviance, social problems and social control.* Prentice-Hall.

Lambert, N. M., Graham, S. M., & Fincham, F. D. (2009). A prototype analysis of gratitude: Varieties of gratitude experiences. *Personality and Social Psychology Bulletin, 35*(9), 1193–1207. http://dx.doi.org/10.1177/0146167209338071

Manicavasagar, V., Horswood, D., Burckhardt, R., Lum, A., Hadzi-Pavlovic, D., & Parker, G. (2014). Feasibility and effectiveness of a web-based positive psychology program for youth mental health: Randomized controlled trial. *Journal of Medical Internet Research, 16*. e140. http://dx.doi.org/10.2196/jmir.3176

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*(3), 227-238. http://dx.doi.org/10.1037//0003-066X.56.3.227

Masten, A. S. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. Development and Psychopathology, 23(2), 493-506. http://dx.doi.org/10.1017/S0954579411000198

Masten, A. S. (2013). Risk and resilience in development. In P.D. Zelazo (Ed.), *The Oxford handbook of developmental psychology: Vol. 2. Self and other* (pp. 579-607). New York: Oxford University Press.

McBride, D., Porter, N., Lovelock, K., Shepherd, D., Zubizaretta, M., Burch, J. (2018). Risk and protective factors for the course of post-traumatic stress disorder in frontline workers after the Christchurch, New Zealand earthquake. *Disaster Prevention and Management, 27*(2), 193-206. http://dx.doi.org/10.1108/DPM-09-2017-0226

McCullough, M. E., Emmons, R. A., & Tsang, J. (2002). The grateful disposition: A

    conceptual and empirical topography. *Journal of Personality and Social*

    Psychology, 82(1), 112–127. http://dx.doi.org/10.1037//0022-3514.82.1.112

McCullough, M. E., Kimeldorf, M. B., & Cohen, A. D. (2008). An adaptation for

    altruism? The social causes, social effects, and social evolution of gratitude.

    Current Directions in Psychological Science, 17(4), 281-285.

    http://dx.doi.org/10.1111/j.1467-8721.2008.00590.x

Merton, R. K. (1957). *Social Theory and Social Structure*. The Free Press.

Mier, C. & Ladny, R. T. (2018). Does self-esteem negatively impact crime and

    delinquency? A meta-analytic review of 25 years of evidence. *Deviant Behavior,*

    39(8), 1006-1022. http://dx.doi.org/10.1080/01639625.2017.1395667

Moore, K. A., & Lucas, J. J. (2020). (2021). COVID-19 distress and worries: The role of

    attitudes, social support, and positive coping during social isolation. *Psychology*

    and Psychotherapy: Theory, Research, and Practice, 94(2), 365-370.

    http://dx.doi.org/10.1111/papt.12308

Nunnally, J. C. (1967). *Psychometric Theory.* McGraw Hill.

Oakes, J. M., & Rossi, P. H. (2003). The measurement of SES in health research: Current

    practice and steps toward a new approach. *Social Science & Medicine, 56*(4), 769-

    784. http://dx.doi.org/10.1016/S0277-9536(02)00073-4

Office of Juvenile Justice and Delinquency Prevention (2019). *One day count of juveniles*

    in residential placement facilities, 1997-2017. OJJDP Statistical Briefing Book.

    https://www.ojjdp. gov/ojstatbb/corrections/qa08201.asp?qaDate=2017

Pezent, G. D. (2011). *Exploring the role of positive psychology constructs as protective factors against the impact of negative environmental variables on the subjective well-being of older adults*. (Publication No. 885654617) [Doctoral dissertation, Texas A&M University]. ProQuest Dissertations and Theses Global.

Rio-Chanono, R. M., Mealy, P., Pichler, A., Lafond, F., & Farmer, J. D. (2020). Supply and demand shocks in the COVID-19 pandemic: An industry and occupation perspective. *Oxford Review of Economic Policy, 36*, 94-137. http://dx.doi.org/10.1093/oxrep/graa033

Robustelli, B. L., & Whisman, M. A. (2018). Gratitude and life satisfaction in the United States and Japan. *Journal of Happiness Studies,19*(1), 41–55. http://dx.doi.org/10.1007/s10902-016-9802-5

Rogers, C. (1961). *On becoming a person.* Houghton Mifflin.

Rosenberg, E. L. (1998). Levels of analysis and the organization of affect. *Review of General Psychology, 2*(3), 247–270. http://dx.doi.org/10.1037/1089-2680.2.3.247

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton University Press.

Rothenberg, W. A., Hussong, A. M., Langley, H. A., Egerton, G. A., Halberstadt, A. G., Coffman, J. L., Mokrova, I., & Costanzo, P. R. (2017). Grateful parents raising grateful children: Niche selection and the socialization of child gratitude. *Applied Developmental Science, 21*(2), 106-120. http://dx.doi.org/10.1080/10888691.2016.1175945

Rutter, M. (2012). Resilience as a dynamic concept. *Development and Psychopathology, 24*(2), 335-344. http://dx.doi.org/10.1017/S095457941000028

Schmitt, D. P., & Allik, J. (2005). Simultaneous administration of the Rosenberg Self-Esteem Scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. *Journal of Personality and Social Psychology, 89*(4), 623-642. http://dx.doi.org /10.1037/0022-3514.89.4.623

Schotanus-Dijkstra, M., Drossaert, C. H. C., Pieterse, M. E., Walburg, J. A., Bohlmeijer, E. T., & Smit, F. (2018). Towards sustainable mental health promotion: Trial-based health-economic evaluation of a positive psychology intervention versus usual care. *BMC Psychiatry, 18*(1), 265. http://dx.doi.org /10.1186/s12888-018-1825-5

Schreiber, J. B., Stage, F. K., King, J., Nora, A., & Barlow, E. A. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Educational Research, 99*(6), 323-337. http://dx.doi.org/10.3200/joer.99.6.323-338

Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. American Psychologist, 60(5), 410-421. http://dx.doi.org/10.1037/0003-066X.60.5.410

Sepah, S. (2011). *How positive emotions benefit patients: Effects on immunity, physical symptoms, and biopsychosocial pathways* (Publication No. 3501927) [Doctoral dissertation, University of California, Los Angeles]. ProQuest Dissertations and Theses Global.

Sheridan, G., & Carr, A. (2020). Survivors' lived experiences of posttraumatic growth after institutional childhood abuse: An interpretative phenomenological analysis.

Child Abuse & Neglect, 103, 104430.

http://dx.doi.org/10.1016/j.chiabu.2020.104430

Shiner, R. L., & Caspi, A. (2003). Personality differences in childhood and adolescence: Measurement, development, and consequences. *Journal of Child Psychology and Psychiatry, 44*(1), 2–32. http://dx.doi.org /10.1111/1469-7610.00101

Siegel, L. J. (2000) *Crime and criminology*. Wadsworth Publishing Company.

Sin, N. L. & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology, 65*(5), 467-487. http://dx.doi.org/10.1002/jclp.20593

Smith, D. A. (1986). The neighborhood context of police behavior. *Crime and Justice, 8*, 313-342.

Solomon, Z., & Laufer, A. (2005). Israeli youth cope with terror: Vulnerability and resilience. In M. Ungar (Ed.), *Handbook for working with children and youth: Pathways to resilience across cultures and contexts* (pp. 229–245). Sage. http://dx.doi.org/10.4135/9781412976312.n14

Staub, E., & Vollhardt, J. (2008). Altruism born of suffering: The roots of caring and helping after victimization and other trauma. *American Journal of Orthopsychiatry, 78*(3), 267-280. http://dx.doi.org/10.1037/a0014223

Stinson, J. D., Quinn, M. A., & Levenson, J. S. (2016). The impact of trauma on the onset of mental health symptoms, aggression, and criminal behavior in an inpatient psychiatric sample. *Child Abuse & Neglect, 61*, 13-22. http://dx.doi.org/10.1016/j.chiabu.2016.09. 005

Stober, J. (2001) The Social Desirability Scale-17: Convergent validity, discriminant validity, and relationship with age. *European Journal of Psychological Assessment, 17*(3), 222-232. http://dx.doi.org/10.1027//1015-5759.17.3.222

Tedeschi, R. G. (1999). Violence transformed: Posttraumatic growth in survivors and their societies. *Aggression and Violent Behavior, 4*(3), 319-341. http://dx.doi.org/10.1016/S1359-1789(98)00005-6

Trzesniewski, K. H., Donnellan, M. B., Moffitt, T. E., Robins, R. W., Poulton, R., & Caspi, A. (2006). Low self-esteem during adolescence predicts poor health, criminal behavior, and limited economic prospects during adulthood. *Developmental Psychology, 42*(2), 381–390. http://dx.doi.org/10.1037/0012-1649.42.2.381

Tweed, R. G., Bhatt, G., Dooley, S., Spindler, A., Douglas, K. S., & Viljoen, J. (2011). Youth violence and positive psychology: Research potential through integration. *Canadian Psychology, 52*(2), 111- 121. http://dx.doi.org/10.1037/a0020695

Ukwuoma, U. C. (2018). Prison education in the United States of America: The racism connection. In I. Biao (Ed.), *Strategic learning ideologies in prison education programs* (pp. 121-135). IGI Global. http://dx.doi.org/10
United States Department of Justice. (2014). *Uniform Crime Reporting Statistics, 2014.*https://www.ucrdatatool.gov/Search/Crime/State/RunCrimeOneYearofData.cfm

Vazquez, A. C. S., Pianezolla, M., & Hutz, C. S. (2018). Assessment of psychosocial factors at work: A systematic review. *Estudos de Psicologia (Campinas), 35*(1)*, 5-13. http://dx.doi.org /10.1590/1982-02752018000100002

Walker-Williams, H. J., & Fouche, A. (2017). A strengths-based group intervention for women who experienced child sexual abuse. *Research on Social Work Practice, 27*(2), 194-205. http://dx.doi.org /10.1177/1049731515581627

Watkins, P. C. (2007). Gratitude. In R. Baumeister & K. Vohs (Eds.), *Encyclopedia of social psychology* (pp. 383-384). Sage.

Watkins, P. C. (2013). *Gratitude and the good life: Toward a psychology of appreciation*. Springer Publishing Company.

Watkins, P. C. (2015). *Positive psychology 101*. Springer Publishing Company.

Watkins, P.C., Woodward, K., Stone, T., & Kolts, R.L. (2003). Gratitude and happiness: Development of a measure of gratitude and relationships with subjective well-being. *Social Behavior and Personality, 31*(5), 431–452. http://dx.doi.org /10.2224/sbp.2003.31.5.431.

Whealin, J. M., Pitts, B., Tsai, J., Rivera, C., Fogle, B. M., Southwick, S. M., & Pietrzak, R. H. (2020). Dynamic interplay between PTSD symptoms and posttraumatic growth in older military veterans. *Journal of Affective Disorders, 269*, 185-191. http://dx.doi.org /10.1016/j.jad.2020.03.020

Woldgabreal, Y., Day, A., & Ward, T. (2016). Linking positive psychology to offender supervision outcomes: The mediating role of psychological flexibility, general self-efficacy, optimism, and hope. *Criminal Justice and Behavior, 43*(6), 697-721. http://dx.doi.org/10.1177/0093854815620816

Wood, A. M., Froh, J. J., & Geraghty, A. W. A. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review, 30*(7), 890–905. http://dx.doi.org/10. 1016/j.cpr.2010.03.005

Woodward, C., & Joseph, S. (2003). Positive change processes and post-traumatic

growth in people who have experienced child abuse: Understanding vehicles of

change. *Psychology and Psychotherapy: Theory, Research, and Practice, 76*(3),

267-283. http://dx.doi.org/10.1348/147608303322362497

Xinying, A. (2017). *Positive psychology intervention for girls with conduct problems: A*

single-case time-series design [Doctoral Dissertation, The University of

Alabama]. The University of Alabama Institutional Repository.

https://ir.ua.edu/bitstream/handle /12345 6789/2686/file _1.

pdf?sequence=1&isAllowed=y

Yang, Y., Zhao, H., Aidi, M., & Kou, Y. (2018). Three good deeds and three blessings:

The kindness and gratitude interventions with Chinese prisoners. *Criminal*

Behavior and Mental Health, 28(5)*,* 433-441. http://dx.doi.org/10.1002/cbm.2085

Yates, T. M., Tyrell, F. A., & Masten, A. S. (2015). Resilience Theory and the practice of

positive psychology from individuals to societies. *Positive psychology in practice:*

promoting human flourishing in work, health, education, and everyday life (pp.

773-788). Wiley.

Table 1

Descriptive Statistics

Measures/Variables	*N*	Min	Max	*M*	*SD*
Self-Reported Delinquency Scale (30-item revised SRDS)	445	29	71	35.87	5.27
Gratitude Questionnaire-Six Item Form (GQ-6)	465	1.83	7	5.73	.88
Rosenberg Self-Esteem Scale (RSES)	421	10	37	22.51	5.82
Posttraumatic Growth Inventory (PTGI)	257	22	127	80.77	25.35
Child Trauma Questionnaire-Short Form (CTQ-SF)	434	29	103	51.01	12.44
Physical Neglect	457	1	4	1.59	.96
None	311				
Low	58				
Moderate	51				
Severe	37				
Emotional Neglect	459	1	4	1.81	1.03
None	241				
Low	115				
Moderate	51				
Severe	52				
Physical Abuse	457	1	4	1.61	.93
None	286				
Low	98				
Moderate	37				
Severe	36				
Emotional Abuse	458	1	4	2.04	1.13
None	203				
Low	115				
Moderate	59				
Severe	81				

Measures/Variables	*N*	Min	Max	*M*	*SD*
Sexual Abuse	456	1	4	1.60	1.08
None	338				
Low	22				
Moderate	38				
Severe	58				
Interpersonal Support Evaluation List (ISEL)	396	61	158	125.05	19.46
MacArthur Sociodemographic Questionnaire	383	.21	1.62	.81	.28

Table 2

Correlation Matrix

Variable	1	2	3	4	5	6
1. SRDS						
2. GQ-6	-.11*					
3. RSES	.14*	-.53*				
4. PTGI	-.02	.41*	-.37*			
5. CTQ-SF	.10*	-.38*	.36*	-.13		
6. ISEL	-.08	.61*	-.57*	.39*	-.42*	
7. SES	-.05	.01	-.05	-.002	.02	.04

* *p* < 0.05 (2-tailed); All *N*s > 217; SRDS - Self-Reported Delinquency Scale; GQ-6 - Gratitude Questionnaire-Six Item Form; RSES - Rosenberg Self-Esteem Scale; PTGI - Posttraumatic Growth Inventory; CTQ-SF - Child Trauma Questionnaire-Short Form; ISEL - Interpersonal Support Evaluation List; SES - MacArthur Sociodemographic Questionnaire

Figure 1

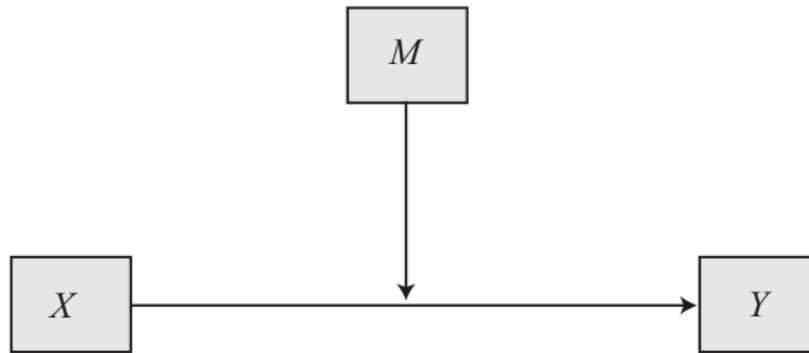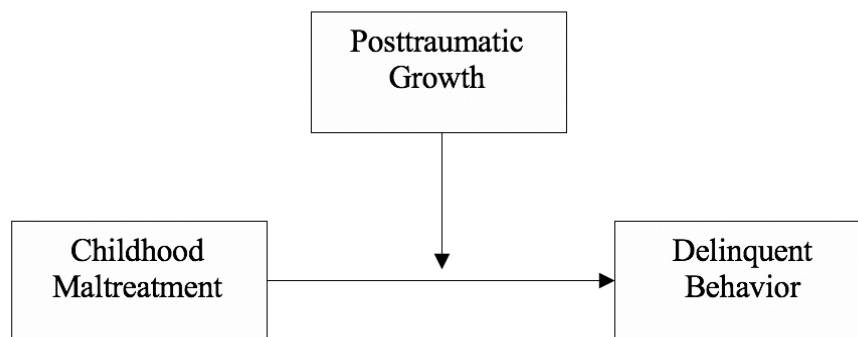*Model 1: Conceptual Diagram (Hayes, 2013)*
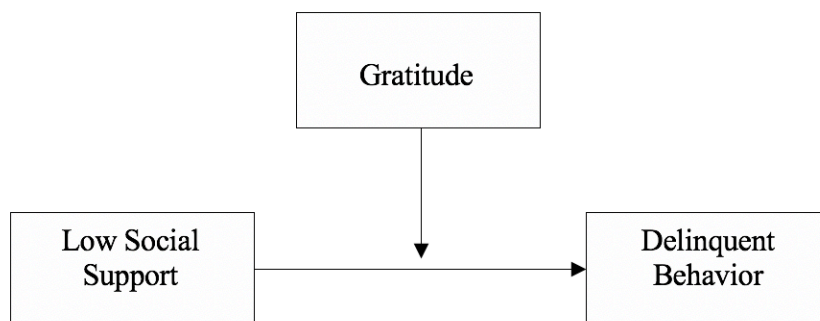
Figure 2

Hypothesis 2 Moderation Model

Figure 3

Hypothesis 4 Moderation Model

Figure 4

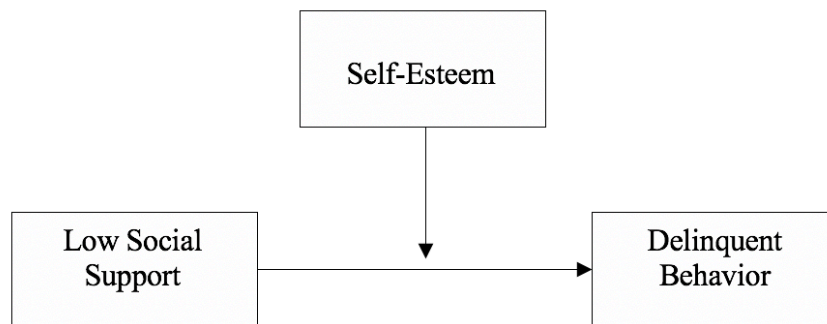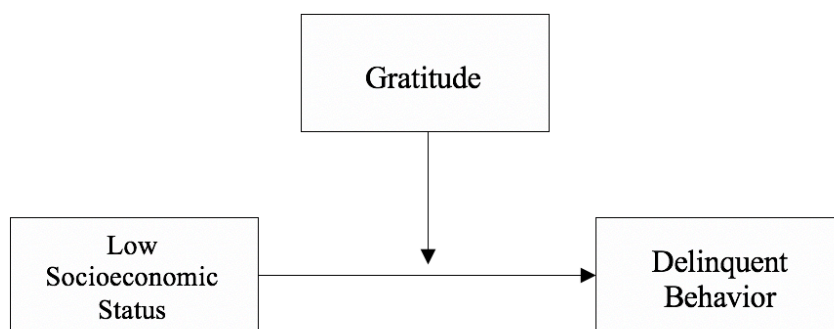*Hypothesis 5 Moderation Model*

Figure 5

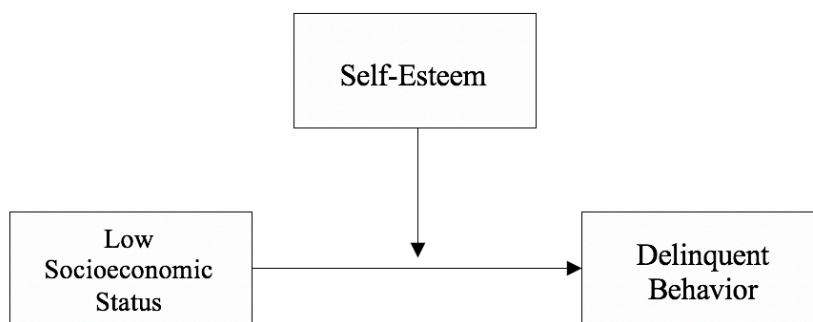*Hypothesis 7 Moderation Model*

Figure 6

Hypothesis 8 Moderation Model

Figure 7

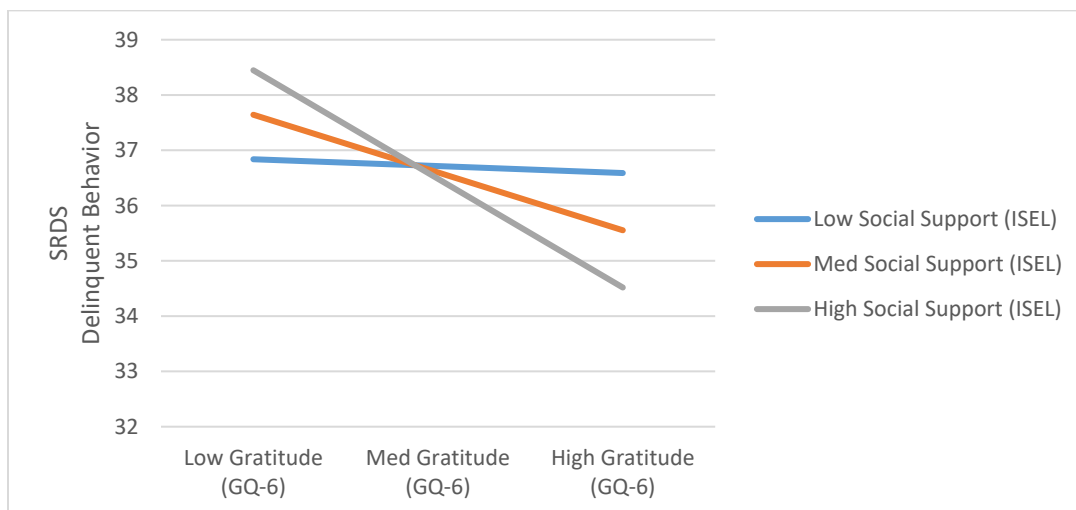*2-way Interaction Moderation Analysis between GQ-6, ISEL, and SRDS.*

Figure 8

2-way Interaction Moderation Analysis between RSES, ISEL, and SRDS.
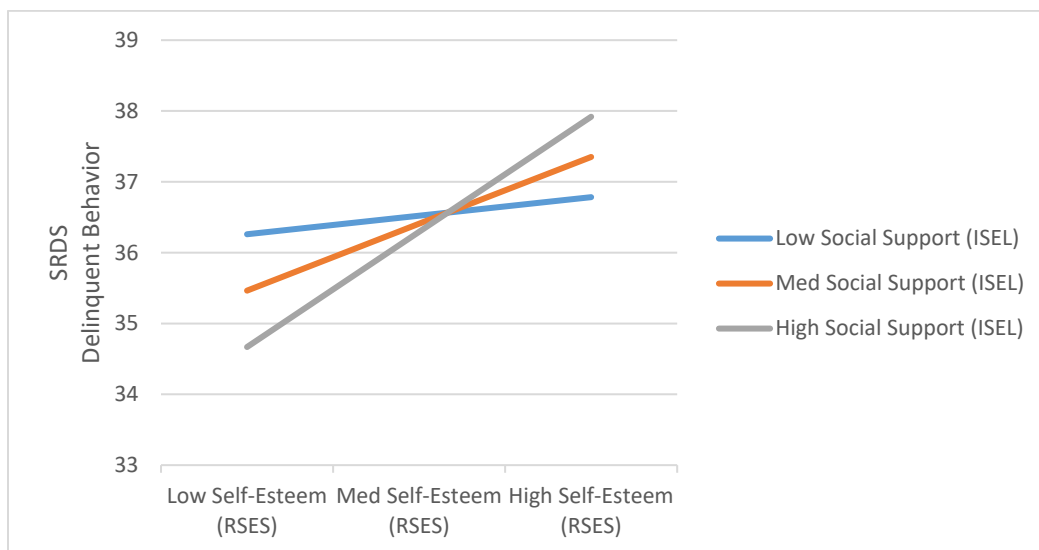
APPENDIX A

Demographic Questionnaire

1. What is your gender?
   a. Male
   b. Female
   c. Transgender
   d. Gender non-conforming
   e. Other ____
   f. Prefer not to respond

2. What is your age?
   a. 18
   b. 19
   c. 20
   d. 21
   e. 22
   f. 23
   g. 24
   h. 25
   i. 26
   j. 27
   k. 28
   l. 29 or older
   m. Prefer not to respond

3. What is your race/ethnicity?
   a. Asian
   b. Black
   c. White
   d. Hispanic
   e. Native American
   f. Pacific Islander
   g. Other _____
   h. Prefer not to respond

APPENDIX B

Self-Reported Delinquency Scale (30-item SRDS; Langhinrichsen-Rohling &

Bowers, 2004; an adapted version of the SRDS, Elliot et al., 1985)

How many times in the past year have you:

1. Skipped class without an excuse
2. Lied about your age to get something (e.g., to buy alcohol or get into a club while underage)
3. Avoided paying (e.g., movies)
4. Purposely damaged property
5. Carried a hidden weapon for protection
6. Engaged in illegal spray painting
7. Stole something worth less than $50.00
8. Stole something worth more than $50.00
9. Entered a building to steal
10. Stolen or tried to steal an automobile
11. Hit someone to hurt them
12. Attacked someone with a weapon
13. Used a weapon to get money from a person
14. Been involved in gang fighting
15. Shot at someone because someone told you to
16. Sold marijuana/weed
17. Sold other illegal drugs
18. Illegally consumed alcohol (e.g., underage drinking)
19. Used marijuana/weed
20. Used cocaine
21. Used ecstasy/molly/MDMA
22. Used flakka or bath salts
23. Used prescription opioids/opiates (e.g., hydrocodone, oxycodone, oxycontin, morphine, codeine, fentanyl) for recreational (not medicinal use)
24. Used heroin
25. Used prescription benzodiazepines (e.g., Xanax, Klonopin, Valium) for recreational (not medicinal) use
26. Used LSD/hallucinogens
27. Used methamphetamines/ice
28. Used mushrooms
29. Used salvia
30. Used spice

Response categories:

(1) Never (2) Once (3) More than once (4) Prefer not to respond

Scoring: Sum scores for all items. Higher scores indicate higher delinquency.

APPENDIX C

Gratitude Questionnaire-Six Item Form (GQ-6; McCullough et al., 2002)

Please select a response for each statement to indicate how much you agree with it.

1 = strongly disagree 2 = disagree 3 = slightly disagree 4 = neutral 5 = slightly agree

6 = agree 7 = strongly agree 8 = prefer not to respond

_____1. I have so much in life to be thankful for.

_____2. If I had to list everything that I felt grateful for, it would be a very long list.

_____3. When I look at the world, I don't see much to be grateful for.

_____4. I am grateful to a wide variety of people.

_____5. As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.

_____6. Long amounts of time can go by before I feel grateful to something or someone.

Scoring: Compute a mean across the item ratings; items 3 and 6 are reverse scored. Higher scores indicate higher gratitude.

APPENDIX D

Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965)

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.

      Strongly Agree   Agree   Disagree   Strongly Disagree

2. At times I think I am no good at all.

      Strongly Agree   Agree   Disagree   Strongly Disagree

3. I feel that I have a number of good qualities.

      Strongly Agree   Agree   Disagree   Strongly Disagree

4. I am able to do things as well as most other people.

      Strongly Agree   Agree   Disagree   Strongly Disagree

5. I feel I do not have much to be proud of.

      Strongly Agree   Agree   Disagree   Strongly Disagree

6. I certainly feel useless at times.

      Strongly Agree   Agree   Disagree   Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

      Strongly Agree   Agree   Disagree   Strongly Disagree

8. I wish I could have more respect for myself.

      Strongly Agree   Agree   Disagree   Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

        Strongly Agree   Agree   Disagree   Strongly Disagree

10. I take a positive attitude toward myself.

        Strongly Agree   Agree   Disagree   Strongly Disagree

Scoring: Items 2, 5, 6, 8, 9 are reverse scored. Give "Strongly Disagree" 1 point, "Disagree" 2 points, "Agree" 3 points, and "Strongly Agree" 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

APPENDIX E

Posttraumatic Growth Inventory (PTGI; Calhoun & Tedeschi, 1999, 2004)

Indicate for each of the statements below the degree to which this change occurred in your life as a result of childhood maltreatment (for example, some sort of abuse or neglect during childhood) or other trauma (if you have not experienced childhood maltreatment).

Important note: If you have experienced a form of childhood maltreatment and additional trauma(s), please answer in regard to your most distressing/severe experience of childhood maltreatment. If you have not experienced childhood maltreatment, but have experienced more than one trauma, please answer in regard to the trauma you indicate below as the most severe/distressing.

Before responding to the statements below, please indicate the most distressing/severe event you are referring to when answering the following questions.

- Physical abuse during childhood
- Emotional abuse during childhood
- Sexual abuse during childhood
- Physical neglect during childhood
- Emotional neglect during childhood
- Serious car accident
- Domestic or family violence, dating violence
- Natural disaster (e.g., hurricane, earthquake, flood, fire)
- Sudden unexpected or violent death of someone close (e.g., suicide, accident)
- Witnessing a homicide
- Sexual assault in adulthood (e.g., rape)
- Serious injury (e.g., burns, dog attack)
- Major surgery or life-threatening illness (e.g., childhood cancer)
- Other _____
- Prefer not to respond

Please respond to the statements below while considering the most distressing/severe event that you chose in the question above.

1 = I did not experience this change as a result of my crisis.
2 = I experienced this change to a very small degree as a result of my crisis.
3 = I experienced this change to a small degree as a result of my crisis.
4 = I experienced this change to a moderate degree as a result of my crisis.
5 = I experienced this change to a great degree as a result of my crisis.
6 = I experienced this change to a very great degree as a result of my crisis.
7 = Prefer not to respond.

Possible Areas of Growth and Change:

1. I changed my priorities about what is important in life.
2. I have a greater appreciation for the value of my own life.
3. I developed new interests.
4. I have a greater feeling of self-reliance.
5. I have a better understanding of spiritual matters.
6. I more clearly see that I can count on people in times of trouble.
7. I established a new path for my life.
8. I have a greater sense of closeness with others.
9. I am more willing to express my emotions.
10. I know better that I can handle difficulties.
11. I am able to do better things with my life.
12. I am better able to accept the way things work out.
13. I can better appreciate each day.
14. New opportunities area available which wouldn't have been otherwise.
15. I have more compassion for others.
16. I put more effort into my relationships.
17. I am more likely to try to change things which need changing.
18. I have a stronger religious faith.
19. I discovered that I'm stronger than I thought I was.
20. I learned a great deal about how wonderful people are.
21. I better accept needing others.

Scoring: The Post Traumatic Growth Inventory (PTGI) is scored by adding all the responses. Individual factors are scored by adding responses to items on each factor. Factors are indicated by the Roman numerals after each item below. Items to which factors belong are not listed on the form administered to clients.

PTGI Factors
Factor I: Relating to Others
Factor II: New Possibilities Factor
Factor III: Personal Strength
Factor IV: Spiritual Change
Factor V: Appreciation of Life

1. I changed my priorities about what is important in life. (V)
2. I have a greater appreciation for the value of my own life. (V)
1. I developed new interests. (II)
2. I have a greater feeling of self-reliance. (Ill)
3. I have a better understanding of spiritual matters. (IV)
4. I more clearly see that I can count on people in times of trouble. (I)
5. I established a new path for my life. (II)
6. I have a greater sense of closeness with others. (I)
7. I am more willing to express my emotions. (I)
8. I know better that I can handle difficulties. (III)
9. I am able to do better things with my life. (II)
10. I am better able to accept the way things work out. (Ill)
11. I can better appreciate each day. (V)
12. New opportunities are available which wouldn't have been otherwise. (II)
13. I have more compassion for others. (I)
14. I put more effort into my relationships. (I)
15. I am more likely to try to change things which need changing. (II)
16. I have a stronger religious faith. (N)
17. I discovered that I'm stronger than I thought I was. (III)
18. I learned a great deal about how wonderful people are. (I)
19. I better accept needing others. (I)

APPENDIX F

Child Trauma Questionnaire–Short Form (CTQ-SF; Bernstein et al., 1994,

Bernstein & Fink, 1998; Bernstein et al., 2003)

Directions: These questions ask about some of your experiences growing up as a child and a teenager. For each question, select the number that best describes how you feel. Although some of these questions are of a personal nature, please try to answer as honestly as you can. Your answers will be kept confidential.

1 = Never true 2 = Rarely true 3 = Sometimes true   4 = Often true   5 = Very often true

When I was growing up …

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

27. I believe that I was sexually abused.
28. My family was a source of strength and support.

APPENDIX G

Interpersonal Support Evaluation List (ISEL; Cohen & Hoberman, 1983; Cohen et al., 1985)

Here is a list of statements each of which may or may not be true about you. For each statement check "definitely true" if you are sure it is true about you and "probably true" if you think it is true but are not absolutely certain. Similarly, you should check "definitely false" if you are sure the statement is false and "probably false" if you think it is false but are not absolutely certain.

1 = definitely false   2 = probably false   3 = probably true   4 = definitely true

1. There are several people that I trust to help solve my problems.
2. If I needed help fixing an appliance or repairing my car, there is someone who would help me.
3. Most of my friends are more interesting than I am.
4. There is someone who takes pride in my accomplishments.
5. When I feel lonely, there are several people I can talk to.
6. There is no one that I feel comfortable to talking about intimate personal problems.
7. I often meet or talk with family or friends.
8. Most people I know think highly of me.
9. If I needed a ride to the airport very early in the morning, I would have a hard time finding someone to take me.
10. I feel like I'm not always included by my circle of friends.
11. There really is no one who can give me an objective view of how I'm handling my problems.
12. There are several different people I enjoy spending time with.
13. I think that my friends feel that I'm not very good at helping them solve their problems.
14. If I were sick and needed someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone.
15. If I wanted to go on a trip for a day (e.g., to the mountains, beach, or country), I would have a hard time finding someone to go with me.
16. If I needed a place to stay for a week because of an emergency (for example, water or electricity out in my apartment or house), I could easily find someone who would put me up.
17. I feel that there is no one I can share my most private worries and fears with.
18. If I were sick, I could easily find someone to help me with my daily chores.
19. There is someone I can turn to for advice about handling problems with my family.
20. I am as good at doing things as most other people are.
21. If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.
22. When I need suggestions on how to deal with a personal problem, I know someone I can turn to.

23. If I needed an emergency loan of $100, there is someone (friend, relative, or acquaintance) I could get it from.
24. In general, people do not have much confidence in me.
25. Most people I know do not enjoy the same things that I do.
26. There is someone I could turn to for advice about making career plans or changing my job.
27. I don't often get invited to do things with others.
28. Most of my friends are more successful at making changes in their lives than I am.
29. If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).
30. There really is no one I can trust to give me good financial advice.
31. If I wanted to have lunch with someone, I could easily find someone to join me.
32. I am more satisfied with my life than most people are with theirs.
33. If I was stranded 10 miles from home, there is someone I could call who would come and get me.
34. No one I know would throw a birthday party for me.
35. It would be difficult to find someone who would lend me their car for a few hours.
36. If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.
37. I am closer to my friends than most other people are to theirs.
38. There is at least one person I know whose advice I really trust.
39. If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me.
40. I have a hard time keeping pace with my friends.

Scoring: All scores are kept continuous.

Items 3, 6, 9, 10, 11, 13, 14, 15, 17, 24, 25, 27, 28, 29, 30, 34, 35, 36, 39, and 40 are reverse scored.

Items 1, 6, 11, 17, 19, 22, 26, 30, 36, and 38 make up the Appraisal Support Subscale

Items 2, 9, 14, 16, 18, 23, 29, 33, 35, and 39 make up the Tangible Support Subscale

Items 3, 4, 8, 13, 20, 24, 28, 32, 37, and 40 make up the Self-Esteem Support Subscale

Items 5, 7, 10, 12, 15, 21, 25, 27, 31, and 34 make up the Belonging Support Subscale.

APPENDIX H

MacArthur Sociodemographic Questionnaire (Adler & Stewart, 2007) with additional questions about income and parental education levels (as a proxy for SES)

1. What is your (or your family's) approximate income (before taxes) in the last year? If your family still financially supports you or you still live at home with your parents or family, report on the approximate income of the family as a whole. If you no longer live at home or have financial support from family, just report on your annual income.

    Please include any child support, food stamps, disability, or other financial aid you receive. Please include income from any adults living in your home who contribute to the household.

    a. *$9,999 or less*
    b. $10,000 - 19,999
    c. $20,000 - 29,999
    d. $30,000 - 39,999
    e. $40,000 - 49,999
    f. $50,000 - 59,999
    g. $60,000 - 79,999
    h. $80,000 - 99,999
    i. $100,000 - 119,999
    j. $120,000 - 139,999
    k. $140,000 - 159,999
    l. $160,000 - 179,999
    m. $180,000 - 199,999
    n. $200,000 or more
    o. Prefer not to respond

2. How would you describe the educational background of your primary caregiver (e.g., your mother or father)? Please select the most advanced level of education they completed.

    a. Some high school
    b. Completed high school or have a GED
    c. Some technical or vocational school
    d. Completed technical or vocational school
    e. Some college or university coursework
    f. Completed college
    g. Some graduate or professional school
    h. Completed graduate or professional school
    i. Not applicable

j.   Prefer not to respond

3.   How would you describe the educational background of your other parent (if applicable)? Please select the most advanced level of education they completed.

a.   Some high school
b.   Completed high school or have a GED
c.   Some technical or vocational school
d.   Completed technical or vocational school
e.   Some college or university coursework
f.   Completed college
g.   Some graduate or professional school
h.   Completed graduate or professional school
i.   Not applicable
j.   Prefer not to respond

MacArthur Sociodemographic Questionnaire (Adler & Stewart, 2007)

4.   **Think of this ladder as representing where people stand in their communities.** People define community in different ways; please define it in whatever way is most meaningful to you. At the **top** of the ladder are the people who have the highest standing in their community. At the **bottom** are the people who have the lowest standing in their community. **Where would you place yourself on this ladder?** Please select the rung where you think you stand at this time in your life, relative to other people in your community.

5.   **Think of this ladder as representing where people stand in the United States.** At the top of the ladder are the people who are the best off –those who have the most money, the most education, and the most respected jobs. At the bottom are the people who are the worst off –who have the least money, least education, and the least respected jobs or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom. **Where would you place yourself on this ladder?** Please select the rung where you think you stand at this time in your life, relative to other people in the United States.

Scoring: Higher rungs indicate higher levels of perceived SES.

APPENDIX I

SHSU Institutional Review Board (IRB) Approval

Date: 11-15-2021

IRB #: IRB-2020-383
Title: How Positive Psychology Factors are Associated with Various Behavioral Outcomes
Creation Date: 12-30-2020
End Date:
Status: Approved
Principal Investigator: Bailey Barnes
Review Board: SHSU IRB
Sponsor:

Study History

Submission Type	Initial	Review Type	Exempt	Decision	Exempt

Key Study Contacts

Member	Hillary Langley	Role	Co-Principal Investigator	Contact	hlangley@shsu.edu
Member	Hillary Langley	Role	Primary Contact	Contact	hlangley@shsu.edu
Member	Bailey Barnes	Role	Principal Investigator	Contact	bab139@shsu.edu
Member	Bailey Barnes	Role	Primary Contact	Contact	bab139@shsu.edu

VITA

Bailey Barnes
Sam Houston State University
Department of Psychology and Philosophy

Education

Present **Doctor of Philosophy Candidate, Clinical Psychology**
Sam Houston State University—Huntsville, TX
Advisor: Hillary Langley, Ph.D.
Master's Thesis: *How Positive Psychology Factors Mitigate Risk for Criminal Engagement*

2019 **Bachelor of Arts, Major—Psychology, Minor—Criminology**
University of Nebraska—Lincoln
Advisor: Brian Bornstein, Ph.D., MLS
Honors Thesis: *Evaluating Eyewitnesses*

Research Interests

Research interests include juvenile offending, positive psychology, childhood maltreatment, and eyewitness testimony.

Publications

Barnes, B. A., Dellapaolera, K. S., Bornstein, B. H., & Douglass, A. B. (in press). Witnessing the witness: Video-recorded procedures enhance credibility. *Criminal Law Bulletin.*

Langley, H. A., Barksdale, S., **Barnes, B.,** Child, C., Ramos, M., & Roberts, M. (2020). Normal Development. Chapter in forthcoming book edited by Venta, A., Sharp, C., Fonagy, P., & Fletcher, J., *Developmental Psychopathology*. Wiley Publishing.

Conference Presentations

Barnes, B. A., Dellapaolera, K. S., Bornstein, B. H., & Douglass, A. B. (March, 2019). *Evaluating Eyewitnesses*. Poster presented at the annual American Psychology-Law Society Conference, Portland, OR.

Dellapaolera, K. S., **Barnes, B. A.**, & Bornstein, B. H. (April, 2018). *Trust in the Jury System as a Predictor of Juror/Jury Decisions*. Poster presented at the annual UNL Spring Research Fair, Lincoln, NE.

Dellapaolera, K. S., **Barnes, B. A.**, & Bornstein, B. H. (April, 2018). *Trust in the Jury System as a Predictor of Juror/Jury Decisions*. Poster presented at the annual UNL Undergraduate Research at the Capitol, Lincoln, NE.

Barnes, B. A., Dellapaolera, K. S., Bornstein, B. H., & Douglass, A. B. (March, 2018). *Evaluating Eyewitnesses*. Poster presented at the annual American Psychology-Law Society Conference, Memphis, TN.

Dellapaolera, K. S., Bornstein, B. H., & **Barnes, B. A.** (March, 2018). *Trust in the Jury System as a Predictor of Juror/Jury Decisions*. Paper presented at the annual American Psychology-Law Society Conference, Memphis, TN.

Dellapaolera, K. S**.**, **Barnes, B. A.**, & Bornstein, B. H. (March, 2018). *Trust in the Jury System as a Predictor of Juror/Jury Decisions*. Paper presented at the annual Great Plains Students' Psychology Convention, Topeka, KS.

Research Experience

Graduate Research Assistant of the GROWTH (Gratitude, Resiliency, & Overall Wellbeing after Trauma and Hardship) Lab

Sam Houston State University, Huntsville, TX
Department of Psychology and Philosophy, *August 2019 – Present*
Faculty Supervisor & Thesis Chair: Hillary Langley, Ph.D.
Master's Thesis: *How Positive Psychology Factors Mitigate Risk for Criminal Engagement*

Present   Responsibilities: Conducting a thesis regarding protective and risk factors of criminal engagement, helping the supervisor and other lab members with study conceptualization/development, developing tasks and surveys for research studies, submitting IRB applications, recruiting research subjects, collecting data with participants, conducting literature reviews, running statistical analyses, and writing up findings for publications.

Graduate Research Assistant of the Positive Psychology for Parents in a Pandemic Project

Sam Houston State University, Huntsville, TX
Department of Psychology and Philosophy, *June 2020 – Present*
Faculty Supervisors: Hillary Langley, Ph.D. & Chelsea Ratcliff, Ph.D.

Present   Responsibilities: Helping the supervisors and other lab members with study conceptualization/development, developing tasks and surveys for research studies, submitting IRB applications, training undergraduate research assistants supervising research assistants teach app-based interventions to participants, conducting literature reviews, running statistical analyses, and writing up findings for publications.

Research Assistant of the Jury, Justice, and Eyewitness (JJEW) Research Group
University of Nebraska—Lincoln
Psychology Department, *August 2016 – May 2019*
Faculty Supervisor: Brian Bornstein, Ph.D., MLS

2018-2019   Honors Thesis: *Evaluating Eyewitnesses*
                Responsibilities: Completed IRB proposal, developed study design, prepared stimulus materials, recruited actors/actresses for video stimulus, set up study on Qualtrics, collected data from online student participants via Sona, conducted analyses using SPSS, presented as the first-author at national conferences, and assisted in manuscript preparation

2018   Project: *Stress and Judgment*
Responsibilities: assisted in data collection by proctoring surveys, collected participant saliva samples for cortisol analysis, and administered two stress tests: the cold pressor test and the Trier Social Stress Test (TSST).
Principal Investigator: Kimberly Dellapaolera, under supervision of Dr. Brian Bornstein

2017-2018   Project: *Trust in the Jury System as a Predictor of Juror/Jury Decisions*
Responsibilities: recruited non-student participants from Lincoln community, assisted in data collection of mock jurors/juries, coded jury deliberation videos using video analysis software (Boris), assisted in conducting analyses using SPSS, and presented as the co-author at local and regional conferences.
Principle Investigator: Kimberly Dellapaolera, under supervision of Dr. Brian Bornstein
Paid research position funded by Undergraduate Creative Activities and Research Experience (UCARE)

2017   Project: *Racism in the Deliberation Room: Federal Rule of Evidence 606(B) and Jury Reporting Behavior*
Responsibilities: assisted with data collection by proctoring surveys.
Principle Investigator: Amy Kleynhans, under supervision of Dr. Brian Bornstein

2016   Project: *Memory for Words*
Responsibilities: assisted with data collection by proctoring surveys and coded/scored surveys.
Principle Investigator: Kimberly Dellapaolera, under supervision of Dr. Brian Bornstein

Research Assistant of the Jurors Understanding Scientific Testimony (JUST) Project
     University of Nebraska—Lincoln
     Psychology Department, *August 2018 – May 2019*
     Faculty Supervisor: Sarah Gervais, Ph.D.
2018-2019   Responsibilities: Assisted in data collection and trained in the use of video analysis software (Noldus Observer).

Clinical Experience

June 2021 – Present

     Doctoral Student Clinician, Montgomery County Juvenile Probation
     Conroe, TX
     Supervisor: Darryl Johnson, Ph.D.
       - Conduct assessments including juvenile psychological evaluation

June 2021 – Present

     Doctoral Student Clinician Peer Supervisor, Psychological Services Center
     Huntsville, TX
     Supervisor: Mary Alice Conroy, Ph.D., ABPP
       - Co-facilitate supervision sessions of a second-year doctoral student by providing direct feedback on mock sessions emphasizing foundational clinical skills

September 2021 – Present

Doctoral Student Clinician, Psychological Services Center
Huntsville, TX
Supervisors: Mary Alice Conroy, Ph.D., ABPP, Craig Henderson, Ph.D., Jaime Anderson, Ph.D.
- Administered adult and adolescent individual therapy in a community-based clinic.
- Completed assessments including court ordered competency to stand trial evaluations, court ordered mental state at the time of the offense evaluations, and learning disability evaluations

October 2017-July 2019

Community Transitions Program at CenterPointe, Lincoln, NE
Program Director: Stephanie McLeese, LIMHP, LADC, LPC
Technician Supervisor: Bethany Nelson
Job Title: Behavioral Health Technician
- Provided support for consumers experiencing mental health or co-occurring disorders
- Helped consumers transition from long-term hospitalization to independent living
- Facilitated social skills, illness management and recovery, independent living skills, leisure skills and cleaning/cooking skills groups
- Observed and documented consumers' day-to-day behaviors and activities
- Reported to the clinical team to update individuals' treatment plans
- Administered daily medications to clients

October 2017-July 2019

CenterPointe Crisis Response Line, Lincoln, NE
Crisis Response Line Volunteer
- Answered phone calls related to crisis response for suicide, mental health, and substance use crisis

Teaching Experience

August 2020- May 2021
- **Instructor,** Introduction to Psychology
  Sam Houston State University, Huntsville, TX
Instructor of large (160 students) classes: created lectures, exams, and assignments; TR 8:00 - 9:15 & TR 3:30 - 4:45

Additional Training and Certificates

- **Physicians for Human Rights Asylum Network Training** (February 2020)
  - Hosted by Baylor College of Medicine, Houston, Texas

Ad Hoc Reviewing

2021
- *Social Development* (Impact Factor: 1.552)
- *Current Psychology* (Impact Factor: 2.051)

2020
- *Mindfulness* (Impact Factor: 3.581)

Academic Awards, Honors, and Grants

2019	Highest Distinction Recipient (University of Nebraska—Lincoln)
2019	Chancellor's Scholar Recipient (University of Nebraska—Lincoln)
2018-2019	Robert McCall Scholarship
2018-2019	George & Mary Haskell Scholarship
2015-2019	Dean's List, UNL College of Arts and Sciences
2018	Research Experiences for Undergraduates (REU) Recipient
2018	UCARE Travel Grant Recipient ($300)
2017-2018	Undergraduate Creative Activities and Research Experiences Recipient
2017-2018	A. A. & E. M. Dreier Scholarship
2017-2018	Julie Cannot Rice Scholarship
2016-2017	A & M Waters Scholarship
2016-2017	G. & L. Cherny Scholarship
2016-2017	Arthur and Delores Flint Scholarship

Honor Society Membership:
- Psi Chi Honor Society
- Alpha Lambda Delta Honor Society
- Phi Eta Sigma Honor Society

Membership in Professional Organizations

- American Psychological Association (APA)
- American Psychology-Law Society (Division 41 of APA)

Professional Skills

- Proficient or experienced with SPSS, Qualtrics, Sona, Boris, Noldus Observer

Leadership Positions

- **Treasurer**, Graduate Student Psychology Organization of SHSU (August 2020 – August 2021)

Other Service Positions

- **Peer Mentor** (June 2021 – present)