

EFFECTS OF PARENTAL INCARCERATION:
STRAINS, NEGATIVE EMOTIONS,
AND MENTAL HEALTH

by

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ABSTRACT

A mid-year 2007 estimate conducted by the Bureau of Justice Statistics reported that 52% of state and 63% of federal inmates reported being parents to an estimated 1.7 million children (Lee et al., 2013). Previous research indicates that parental incarceration can lead to many secondary consequences, including increased strain. This increased strain can lead to mental health decline (Lee et al., 2013). There is limited research, however, examining what role negative emotions play in this relationship. General strain theory suggests that strain leads to negative emotions, which lead to adverse reactions. The most common adverse reaction studied in criminology is delinquency, but other adverse reactions, such as compromised mental health, are possible (Agnew, 1992). The current study draws on general strain theory as a framework by examining the relationships between parental incarceration, negative emotions, and mental health. Using convenience sampling, a survey was administered to 71 undergraduate students attending a large university in the southwest through the Qualtrics system. Findings indicate that there is no statistically significant indirect relationship between parental incarceration, negative emotions, and the Brief Symptoms Inventory (BSI) or any of its subscales. Further, there were only two statistically significant relationships between parental incarceration and the BSI Global or its subscales; parental incarceration and somatization and parental incarceration and paranoid ideation were both negatively related.

Keywords: adverse childhood experiences, secondary consequences of incarceration, incarcerated parents, self-reported mental health, negative emotional affect

I. INTRODUCTION

Parental Incarceration in the United States

The United States has long been known for its high rate of incarceration. Specifically, the United States incarcerates 655 people per 100,000 (Walmsley, 2016). The world prison population rate is roughly 145 per 100,000, and most countries (53%) have rates that are below 150 per 100,000 people (Walmsley, 2016). Statistics such as these, and many others, firmly solidify the United States as the number one incarcerating country in the world.

The United States' abnormally high incarceration rate has led to many secondary consequences, not only for those incarcerated, but also for their children. Currently, federal, state, and local agencies do not collect data on children exposed to parental incarceration and parents with incarceration histories (Lee et al., 2013). This makes estimating the prevalence of parental incarceration difficult, with only a few estimates available. Considering only inmates who were parents, the Bureau of Justice Statistics reported that the number of parents who were held in state or federal prisons from 1991 through mid-2007 increased by 79% (Glaze & Maruschak, 2010). This means that over a 16.5-year period, an additional 357,300 parents were incarcerated. Furthermore, in midyear of 2007, 52% of state and 63% of federal inmates reported being parents to an estimated 1.7 million children, which equates to 2.3% of all children in the United States (Lee et al., 2013, Glaze & Maruschak, 2010). These estimates, however, only included children whose parents were currently incarcerated in a prison. When considering any type of incarceration history of a parent, (who must have previously lived with their child), an estimated 5 million children are affected by parental incarceration, which

accounts for 7% of all children in the United States (Murphey & Cooper, 2015). This estimate does not include parents who have not previously resided with their children. Therefore, it is likely that the number of children with an incarcerated parent exceeds 5 million. Estimates from the 2016-2017 National Survey of Children's Health support this notion, estimating that 5,411,695 children have experienced parental incarceration (Child and Adolescent Health Measure Initiative, 2017).

II. LITERATURE REVIEW

Secondary Consequences of Parental Incarceration

From these estimates, it is clear that parental incarceration is a major issue in the United States. To further support this notion, Wildeman (2009) stated “parental imprisonment has emerged as a novel, and distinctly American, ‘childhood risk,’” (p. 276)”. Because parental incarceration has become so prominent in the United States, some researchers have begun to look at the effects it may have on children. Although incarceration is not specifically meant to punish the children of those who are incarcerated, the secondary effects felt by the children are equivalent, or sometimes worse, than the effects felt by the incarcerated individual (Condry & Minson, 2020). Children of incarcerated individuals often experience relationship strain with their incarcerated parent (Arditti, 2012; Mowen & Visser, 2016). Furthermore, they often show higher levels of behavioral issues, delinquency, physical health issues, financial strain, stigma, social exclusion, and mental health issues (Arditti, 2012; Comfort et al., 2011; Lee et al., 2013; Murray et al., 2012; Turney, 2017).

Of the secondary consequences experienced by children of incarcerated parents, mental health is of particular interest. Turney (2017) found that children exposed to parental incarceration were more vulnerable to mental health problems than children who were not, yet these children faced challenges accessing mental health services. These challenges further exacerbated their levels of social exclusion (Turney, 2017). Furthermore, a study examining a sample of adolescents receiving routine mental health services found that children with a history of parental incarceration had higher rates of attention-deficit/hyperactivity disorders than those who did not experience parental

incarceration (Phillips et al., 2002). Lastly, a study conducted by Lee (2013) suggested that children of incarcerated fathers had increased odds for multiple mental health problems (e.g., depression, PTSD, and anxiety), and participants who reported having a mother incarcerated had an increased risk of depression (Lee, 2013).

The relationship between parental incarceration and the mental health of their children has been established. What is less clear, however, is why parental incarceration leads to mental health problems. One possibility is the presence of negative emotions. The effect negative emotions may have on an individual's mental health has not been largely studied in the criminal justice field, however, many other fields of research have examined this relationship. For example, a study examining the effects of Covid-19 on pregnant Chinese women found that the negative emotions, fear and worry, were risk factors for probable depression and anxiety (Mo et al., 2021). Another study examining the relationship between negative emotions related to the climate and mental health found that negative emotions were negatively related to mental health in most of the 25 countries they examined (Ogunbode et al., 2021).

General Strain Theory

General strain theory suggests that strain leads to negative emotions, which lead to negative outcomes (Agnew, 1992). Agnew (1992) describes three types of strain: 1) An individual's prevention from achieving positive goals, 2) the loss of positively valued stimuli, and 3) confrontation with negative stimuli. Parental incarceration can cause all three of these strains. Maternal incarceration has both direct and indirect negative effects on college graduation rates (Hagan & Foster, 2012), which is an example of parental incarceration reducing an individual's likelihood to achieve positive goals. Previous

research also indicates children of incarcerated individuals often experience relationship strain with their incarcerated parent (Arditti, 2012; Mowen & Visser, 2016), which can be seen as a loss of positively valued stimuli. Lastly, many children of incarcerated parents experience social stigma (Murray et al., 2012), which can be viewed as a confrontation with negative stimuli.

The most common negative outcome examined in criminology/criminal justice is delinquency/criminal offending (Aaron & Dallaire, 2010; Cochran, Siennick, & Mears, 2018; Young et al., 2020), but Agnew (1992) suggests that other negative outcomes are possible. One of these possible negative outcomes is compromised mental health.

Although substantially less researched than delinquency/criminal offending, there is some research to support that strain may lead to mental health declines. For example, one study examining the psychological, structural, and social strains created by parental incarceration found that respondents whose parent was first incarcerated before birth or age 1 appeared to be at risk for adult depressive symptoms (Gaston, 2016).

III. CURRENT RESEARCH

There are a few limitations in the existing research. As stated previously, mental health has rarely been examined as an outcome variable among criminologists. Instead, delinquency/criminal offending is often examined (Aaron & Dallaire, 2010, Cochran, Siennick, & Mears, 2018, & Young et al., 2020). Furthermore, the studies which have looked at mental health as an outcome variable (Gaston, 2016), have not taken into account the role negative emotions may play in the relationship between parental incarceration and poor mental health. To address these issues, this study will examine the relationship between parental incarceration and mental health with an emphasis on explaining the mechanisms. The mechanism that will be examined is negative emotions. The hypotheses are listed below:

H1- Participants who have experienced parental incarceration will have higher mental distress scores than those who have not experienced parental incarceration.

H2 - Participants who have experienced parental incarceration will report more negative emotions than those who have not experienced parental incarceration.

H3 – As a participant's rate of negative emotions increases, so will their mental health distress scores.

H4 - The relationship between parental incarceration and mental health distress scores will be mediated by negative emotions.

Analytic Approach

Participants were asked a series of questions (see Appendix A) regarding their parent's incarceration, emotional affect, and mental health. A series of regression and correlation analyses were performed to determine the relationship between parental

incarceration, negative emotions, and mental health. Further, a series of t-tests were performed to determine any mean level differences between participants with an incarcerated parent and those without an incarcerated parent.

IV. METHODS

Participants

Using convenience sampling, the survey was administered to 71 undergraduate students attending a large university in the southwest through the Qualtrics system. Students in certain classes were required to earn research credits. Participation in a research study, such as this one, partially fulfilled that requirement. Non-research alternatives were also provided for any students that did not want to be part of a research study. In an effort to maximize confidentiality, no demographic data were collected.

Measures

Parental Incarceration

Participants were asked if any of their parents, including a stepparent, have been incarcerated in a prison. Of the 71 participants who answered this question, eight indicated a parent had been incarcerated (11.3%).

Negative Emotions

The Positive and Negative Affect Schedule (PANAS; see Appendix A) was used to measure negative affect. The PANAS scale is a validated (Crawford & Henry, 2004) 20-item questionnaire, with 10 of the questions measuring positive affect, and 10 measuring negative affect. For the purpose of this study, only negative affect was analyzed. The Negative Affect Scale allows for scores from 10-50, with higher scores representing higher levels of negative affect. A total of 70 participants successfully completed the PANAS. See Table 1 for descriptive statistics.

Mental Health

To measure a participant's current mental health, they were asked to complete the Brief Symptoms Inventory (BSI; see Appendix A). The BSI is a validated (Akhavan & Shairi, 2020) 53-item questionnaire that covers nine symptom dimensions: Somatization (distress arising from perceptions of bodily dysfunction), Obsession-Compulsion (thoughts and impulses that are experienced as unremitting and irresistible but are of an unwanted nature), Interpersonal Sensitivity (feelings of personal inadequacy and inferiority in comparison with others), Depression (symptoms of dysphoric mood and affect as well as lack of motivation and loss of interest in life), Anxiety (nervousness and tension as well as panic attacks and feelings of terror), Hostility (thoughts, feelings, or actions that are characteristic of anger), Phobic anxiety (persistent fear response to a specific place, object, or situation that is irrational), Paranoid ideation (disordered thinking characteristic of projective thoughts, hostility, suspiciousness, grandiosity, fear of loss of autonomy, and delusions) and Psychoticism (withdrawn, isolated, schizoid lifestyle as well as first-rank symptoms of schizophrenia such as thought control) (Stewart et al., 2010). Additionally, there are three global indices of distress: Global Severity Index, Positive Symptom Distress Index, and Positive Symptom Total. The global indices measure the current or past level of symptomatology, the intensity of symptoms, and the number of reported symptoms, respectively (Derogatis & Spencer, 1993). For this study specifically, only the nine subscales and the Global Severity Index were analyzed. Subscale descriptive statistics are located in Table 1.

V. RESULTS

Table 1. Descriptive statistics of the BSI subscales ($n = 70-71$)

	Mean	Median	SD
Parental Incarceration	1.89	2.00	0.32
Somatization	1.67	1.29	0.83
OCD	2.62	2.58	1.14
Interpersonal Sensitivity	2.23	2.00	1.20
Depression	2.07	1.67	1.01
Anxiety	1.94	1.67	0.98
Hostility	1.74	1.60	0.72
Phobic Anxiety	1.81	1.60	0.95
Paranoid Ideation	2.13	2.00	0.86
Psychoticism	1.86	1.60	0.88
Positive Emotions	3.54	3.50	0.66
Negative Emotions	2.23	2.25	0.78
BSI Global	2.01	1.82	0.81

A correlation was conducted to assess the relationship between parental incarceration, negative emotions, and mental health (see Table 2). Negative emotions were significantly, positively, and strongly related to scores on the BSI global. Parental incarceration was not significantly related to negative emotions or scores on the BSI global.

Table 2. Correlations between parental incarceration, negative emotions, and the BSI Global

Correlation (PI, NE, and BSI Global)

		Parental Incarceration	Negative Emotions	BSI Global
Parental Incarceration	Pearson Correlation		-0.14	-0.22
	Sig. (2-tailed)		0.26	0.07
	N		70	70
Negative Emotions	Pearson Correlation			0.66**
	Sig. (2-tailed)			<0.001
	N			70

** . Correlation is significant at the 0.01 level (2-tailed).

A second correlation was conducted to assess the relationship between parental incarceration, negative emotions, and the nine subscales of the BSI (see Table 3). Parental incarceration was significantly, negatively, and moderately related to somatization and paranoid ideation, meaning that parental incarceration led to lower rates of somatization and paranoid ideation. Parental incarceration was not significantly related to OCD, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, or psychoticism. Negative emotions were significantly, positively, and strongly related to all nine of the subscales: somatization ($r=0.51, p<.001$), OCD ($r=0.58, p<.001$), interpersonal sensitivity ($r=0.59, p<.001$), depression ($r=0.54, p<.001$), anxiety ($r=0.68, p<.001$), hostility ($r=0.57, p<.001$), phobic anxiety ($r=0.56, p<.001$), paranoid ideation ($r=0.53, p<.001$), and psychoticism ($r=0.46, p<.001$).

Table 3. Correlations between parental incarceration, negative emotions, and the subscales of the BSI

Correlation (PI, NE, and the Subscales of the BSI)

		Parental Incarceration	Negative Emotions
Somatization	Pearson Correlation	-0.29*	0.51**
	Sig. (2-tailed)	.01	<0.001
	N	70	69
OCD	Pearson Correlation	-0.05	0.58**
	Sig. (2-tailed)	0.69	<0.001
	N	70	69
Interpersonal Sensitivity	Pearson Correlation	-0.15	0.59**
	Sig. (2-tailed)	0.23	<0.001
	N	70	69
Depression	Pearson Correlation	-0.15	0.54**
	Sig. (2-tailed)	0.22	<0.001
	N	70	69
Anxiety	Pearson Correlation	-0.23	0.68**
	Sig. (2-tailed)	.05	<0.001
	N	70	69
Hostility	Pearson Correlation	-0.14	0.57**
	Sig. (2-tailed)	0.26	<0.001
	N	70	69

Table 3 cont.

Phobic Anxiety	Pearson Correlation	-0.16	0.56**
	Sig. (2-tailed)	0.19	<0.001
	N	70	69
Paranoid Ideation	Pearson Correlation	-0.36**	0.53**
	Sig. (2-tailed)	0.002	<0.001
	N	70	69
Psychoticism	Pearson Correlation	-0.20	0.46**
	Sig. (2-tailed)	0.10	<0.001
	N	70	69

A t-test was conducted to detect any mean-level differences between participants with an incarcerated parent and those without an incarcerated parent on the Global Index Scale and the nine subscales of the BSI (see Relationship between parental incarceration and negative emotions). There were no significant relationships between parental incarceration and the Global Index Scale or any of BSI subscales. Although there were no statistically significant effects, effect sizes were also calculated for the mean-level differences. Despite being nonsignificant, several effect sizes were moderate to large (see Table 4).

Table 4. t-test examining mean-level differences between participants with an incarcerated parent and those without an incarcerated parent

Group Statistics			
	Have either of your parents ever been incarcerated in a prison?	N	Mean
Somatization	Yes	63	1.59
	No	7	2.39
OCD	Yes	63	1.10
	No	7	1.57
Interpersonal Sensitivity	Yes	63	1.11
	No	7	1.91
Depression	Yes	63	0.92
	No	7	1.66
Anxiety	Yes	63	0.87
	No	7	1.63
Hostility	Yes	63	0.67
	No	7	1.09

Table 4 cont.

Phobic Anxiety	Yes	63	0.87
	No	7	1.53
Paranoid Ideation	Yes	63	0.74
	No	7	1.34
Psychoticism	Yes	63	0.81
	No	7	1.33
BSI Global	Yes	63	0.71
	No	7	1.42

Table 4 Cont.

Anxiety	Equal variances assumed	12.50	0.001							
	Equal variance not assumed			-1.20	6.39	0.27	-0.75	0.63	-2.26	0.76
Hostility	Equal variances assumed	2.97	0.09							
	Equal variance not assumed			-0.78	6.52	0.47	-0.33	0.42	-1.33	0.68

Table 4 cont.

Phobic Anxiety	Equal variances assumed	6.98	0.01							
	Equal variance not assumed			-0.85	6.44	0.43	-0.50	0.59	-1.92	0.92
Paranoid Ideation	Equal variances assumed	7.86	0.01							
	Equal variance not assumed			-2.01	6.41	0.09	-1.03	0.52	-2.28	0.21
Psychoticism	Equal variances assumed	7.43	0.01							
	Equal variance not assumed			-1.11	6.50	0.31	-0.57	0.51	-1.80	0.66
BSI Global	Equal variances assumed	18.68	<0.001							
	Equal variance not assumed			-1.08	6.34	0.32	-0.58	0.54	-1.89	0.73
Negative Emotions	Equal variances assumed	4.86	0.03							
	Equal variance not assumed			-0.85	7.88	0.42	-0.33	0.39	-0.33	0.39

Table 4 cont.

Independent Samples Effect Sizes

	Point Estimate (Cohen's d)	95% Confidence Interval	
		Lower	Upper
Somatization	-1.01	-1.80	-0.21
OCD	-0.16	-0.94	0.62
Interpersonal Sensitivity	-0.48	-1.27	0.30
Depression	-0.50	-1.28	0.29
Anxiety	0.79	-1.58	0.01
Hostility	-0.46	-1.24	0.33
Phobic Anxiety	-0.53	-1.31	0.26
Paranoid Ideation	-1.27	-2.08	-0.46
Psychoticism	-0.66	-1.44	0.13
BSI Global	-0.73	-1.52	0.06
Negative Emotions	-0.43	-1.16	0.32

Lastly, Hayes' (Hayes, 2017) PROCESS model 4 was used. This model uses linear regression and assesses mediation using a bootstrapping approach (1,000 samples) to estimate a 95% confidence interval of the indirect effect. The relationship between parental incarceration and negative emotions (see Table 5) was statistically non-significant, making it impossible for there to be any statistically significant indirect effects between parental incarceration, negative emotions, and the Global Index Scale and the BSI subscales (see Table 8). Although there were no statistically significant indirect relationships, there was a positive, significant relationship between negative emotions and the Global Index Scale, as well as each of the BSI subscales (see Table 6). Furthermore, there were two negative, statistically significant direct relationships: parental incarceration and somatization and parental incarceration and paranoid ideation (see Table 7).

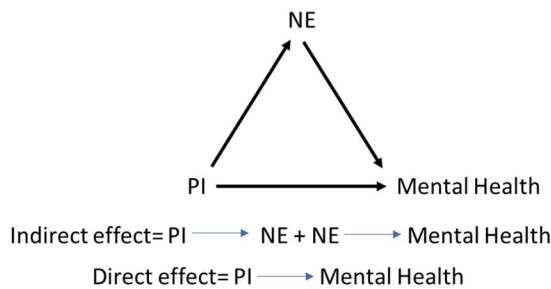


Figure 1- *Indirect and Direct Effect Model*

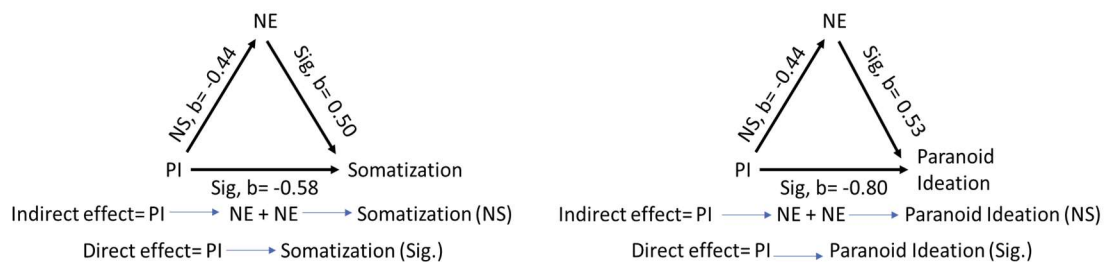


Figure 2- *Significant Direct Effects*

Table 5. Relationship between parental incarceration and negative emotions

Model Summary/Model Fit (Outcome Variable- Negative Emotions)						
	b	se _b	T	p	95% CI	
					Lower	Upper
Constant	3.07	0.60	5.12	<0.001	1.87	4.27
Parental Incarceration	-0.44	0.31	-1.40	0.17	-1.06	0.19

Table 6. Relationship between negative emotions and the Global Index Scale and the BSI subscales

Model Summary/Model Fit (Outcome Variable- Global BSI and its Subscales)							
		b	se _b	T	p	95% CI	
						Lower	Upper
Somatization	Constant	1.65	0.64	2.60	0.01	0.38	2.91
	Parental Incarceration	-0.58	0.28	-2.03	0.05*	-1.14	-0.01
	Negative Emotions	0.50	0.11	4.55	<0.001*	0.28	0.72
OCD	Constant	0.36	0.86	0.42	0.68	-1.35	2.06
	Parental Incarceration	0.20	0.38	0.52	0.60	-0.56	0.96
	Negative Emotions	0.85	0.15	5.73	<0.001*	0.55	1.14
Interpersonal Sensitivity	Constant	0.57	0.89	0.64	0.52	-1.21	2.34
	Parental Incarceration	-0.17	0.40	-0.43	0.67	-0.96	0.62
	Negative Emotions	0.89	0.15	5.82	<0.001*	0.59	1.20
Depression	Constant	0.94	0.78	1.20	0.24	-0.63	2.50
	Parental Incarceration	-0.19	0.35	-0.55	0.59	-0.89	0.51
	Negative Emotions	0.68	0.14	4.99	<0.001*	-0.41	0.95
Anxiety	Constant	0.83	0.65	1.28	0.21	-0.47	2.13
	Parental Incarceration	-0.38	0.29	-1.31	0.19	-0.96	0.20
	Negative Emotions	0.82	0.11	7.34	<0.001*	0.60	1.05

Table 6 Cont.

Hostility	Constant	0.77	0.54	1.42	0.16	-0.16	1.85
	Parental Incarceration	-0.09	0.24	-0.38	0.70	-0.58	0.39
	Negative Emotions	0.51	0.09	5.48	<0.001*	0.33	0.70
Phobic Anxiety	Constant	0.71	0.73	0.98	0.33	-0.74	2.16
	Parental Incarceration	-0.20	0.33	-0.62	0.54	-0.84	0.45
	Negative Emotions	0.66	0.13	5.28	<0.001*	0.41	0.91
Paranoid Ideation	Constant	2.47	0.64	3.84	<0.001	1.18	3.75
	Parental Incarceration	-0.80	0.29	-2.79	0.01*	-1.38	-0.23
	Negative Emotions	0.53	0.11	4.76	<0.001*	0.31	0.75
Psychoticism	Constant	1.42	0.71	1.99	0.05	-0.003	2.83
	Parental Incarceration	-0.35	0.32	-1.09	0.28	-0.98	0.29
	Negative Emotions	0.50	0.12	4.02	<0.001*	0.25	0.74
BSI Global	Constant	1.09	0.55	1.94	-0.03	-0.03	2.19
	Parental Incarceration	-0.28	0.25	-1.15	-0.78	-0.78	0.21
	Negative Emotions	0.66	0.10	6.88	<0.001	0.47	0.85

Table 7. Direct effects of parental incarceration on the Global Index Scale and the BSI subscales

Direct Effects of Parental Incarceration on the BSI Global and its Subscales						
	Effect	se _b	T	p	CI 95%	
					Lower	Upper
Somatization	-0.58	0.28	-2.03	0.05*	-1.14	-0.01
OCD	0.20	0.28	0.52	0.60	-0.56	0.96
Interpersonal Sensitivity	-0.17	0.40	-0.43	0.67	-0.96	0.62
Depression	-0.19	0.35	-0.55	0.59	-0.89	0.51
Anxiety	-0.38	0.29	-1.31	0.19	-0.96	0.20
Hostility	-0.09	0.24	-0.38	0.70	-0.58	0.39
Phobic Anxiety	-0.20	0.33	-0.62	0.54	-0.85	0.45
Paranoid Ideation	-0.80	0.29	-2.79	0.01*	-1.38	-0.23
Psychoticism	-0.35	0.32	-1.09	0.28	-0.98	0.29
BSI Global	-0.29	0.25	-1.15	0.26	-0.78	0.21

Table 8. Indirect effect between negative emotions, parental incarceration, and the Global Index Scale and the BSI subscales

Indirect Effect of Negative Emotions on the relationship between Parental Incarceration on the BSI Global and its Subscales			
	Effect	CI 95%	
		Lower	Upper
Somatization	-0.22	-0.63	0.20
OCD	-0.37	-1.12	0.35
Interpersonal Sensitivity	-0.39	-1.12	0.37
Depression	-0.29	-0.83	0.27
Anxiety	-0.36	-1.07	0.34
Hostility	-0.22	-0.66	0.22
Phobic Anxiety	-0.29	-0.85	0.26
Paranoid Ideation	-0.23	-0.69	0.22
Psychoticism	-0.22	-0.62	0.18
BSI Global	-0.29	-0.82	0.26

VI. DISCUSSION

Hypothesis 1- Participants who have experienced parental incarceration will have higher mental distress scores than those who have not experienced parental incarceration.

Hypothesis one cannot be supported. Although parental incarceration had a negative direct effect with the scores for the BSI Global scale and six of its subscales (i.e., somatization, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism), most of these effects were non-significant. The only two significant direct effects were for the subscale's somatization and paranoid ideation, with parental incarceration having a negative, significant direct effect on both subscales. Although only two out of the eight direct effects examined were significant, most of the direct effects were in the predicted direction. That is, parental incarceration negatively affected a participant's score on the BSI Global Scale and its subscales, with the exception of OCD. Parental incarceration, instead, had a non-significant, positive direct effect on OCD. There were no statistically significant indirect effects between parental incarceration, negative emotions, and the BSI Global Scale and its subscales.

Hypothesis 2- Participants who have experienced parental incarceration will report more negative emotions than those who have not experienced parental incarceration.

Again, hypothesis two cannot be supported. Parental incarceration showed a non-significant, negative relationship with participants' scores on the PANAS. This suggests that while parental incarceration may have led to higher levels of negative emotions, it did not do so at any statistically significant level.

Hypothesis 3- As a participant's rate of negative emotions increases, so will their mental health distress scores.

Hypothesis three was supported. Negative emotions were positively, moderately, and significantly related to scores on the BSI Global and its nine subscales. This means that as the presence of negative emotions increased, so did levels of mental distress.

Hypothesis 4- The relationship between parental incarceration and mental health distress scores will be mediated by negative emotions.

Hypothesis four was not supported. There were no statistically significant indirect effects between parental incarceration, negative emotions, and the BSI Global Scale and its subscales. That is, the relationship between parental incarceration and mental health distress scores were not mediated on any significant level.

Limitations

First, the sample consisted of undergraduate university students, which may not be representative of the general population or populations most likely to experience parental incarceration. Future research should use more representative samples. Second, both the sample size and the number of participants who experienced parental incarceration within the sample were very small. This makes it impossible to make generalizations about the entire population of those who have had an incarcerated parent, and therefore, the current findings should be interpreted with caution. Third, it is impossible to determine if the negative emotions or mental health problems measured were actually caused by their parent's incarceration. It is possible that the participants had mental health problems or negative emotions before their parent's incarceration or that these issues developed after their parent's incarceration as a result of outside factors. Future research should consider using a longitudinal approach, looking at mental health

and negative emotions before, during, and after a participant's parent's incarceration. Finally, the amount of time since the parent's incarceration and the age of the participant when the parent was incarcerated was not taken into account. It is possible that parental incarceration may only have a temporary effect on negative emotions and mental health, and that over time, this effect decreases. It is also possible that the age of the participant may play a factor in the strength of this relationship. For example, a child may be more strongly affected than an adult by a parent's incarceration. Future research should examine multiple factors that may affect the strength of the relationship between parental incarceration, negative emotions, and mental health.

Conclusion

These findings are important for a number of reasons. As noted earlier, the previous research has already established the direct relationship between parental incarceration and mental health distress. The mechanisms that play a role in this relationship, however, are less clear. The findings above suggest that negative emotions lead to mental health distress. This finding is notable because, although it has been examined in other fields of research, the relationship between negative emotions and mental health distress has yet to be examined in criminology. Using the findings from hypothesis three, it can then be assumed that if parental incarceration leads to negative emotions, it will also result in mental health distress through an indirect effect. The current study was unable to find a significant relationship between parental incarceration and negative emotions, however, but this can likely be attributed to the many limitations within the study. Future research should address these limitations and specifically focus on determining the relationship between parental incarceration and negative emotions.

APPENDIX SECTION

Survey

Q0 Abigail Galvan, a graduate student at Texas State University, is conducting a research study to determine the effect familial incarceration has on mental health. You are being asked to complete this survey because you are a student at Texas State University.

Participation is voluntary. The survey will take approximately 25 minutes or less to complete. You must be at least 18 years old to take this survey.

This study involves no foreseeable serious risks. We ask that you try to answer all questions; however, if there are any items that make you uncomfortable or that you would prefer to skip, please leave the answer blank. Your responses are anonymous.

Possible benefits from this study are a better understanding of how exposure to incarcerated individuals, and specifically family members, impacts a person's mental health.

No identifiable information will be collected with this study. The members of the research team and the Texas State University Office of Research Integrity and Compliance (RIC) may access the data. The RIC monitors research studies to protect the rights and welfare of research participants.

Data will be kept for three years (per federal regulations) after the study is completed and then destroyed.

You will receive credit towards your SONA research experience credit.

If you have any questions or concerns, feel free to contact Abigail Galvan or her faculty advisor:

Abigail Galvan, graduate student	Shayne Jones, Professor
School of Criminal Justice & Criminology	School of Criminal Justice & Criminology
817-760-6136	512-245-1036
Amg487@txstate.edu	Sej57@txstate.edu

If any questions in this study make you feel uncomfortable or upset, please contact the Counseling Center:

5-4.1 LBJ Student Center

601 University Drive
San Marcos, Texas 78666
Monday-Friday, 8 a.m. - 5 p.m.
Phone: 512.245.2208
Fax: 512.245.2234
counselingcenter@txstate.edu

This project [insert IRB Reference Number or Exemption Number] was approved by the Texas State IRB on [insert IRB approval date or date of Exemption]. Pertinent questions or concerns about the research, research participants' rights, and/or research-related injuries to participants should be directed to the IRB chair, Dr. Denise Gobert 512-716-2652 – (dgobert@txstate.edu) or to Monica Gonzales, IRB Regulatory Manager 512-245-2334 - (meg201@txstate.edu). If you would prefer not to participate, please do not fill out a survey.

If you consent to participate, please complete the survey.



Q1 Have either of your parents ever been incarcerated in a prison?

- ☐ Yes (1)
- ☐ No (2)

Skip To: Q16 If Have either of your parents ever been incarcerated in a prison? = No



Q2 Please indicate which of your parents have ever been incarcerated in a prison. (Check each box that applies).

- ☐ Father(s) (1)
- ☐ Mother(s) (2)
-

Q3 At which point(s) in your life were your parent(s) incarcerated? (Check each box that applies).

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)

	Childhood (1)	Adolescence (2)	Adulthood (3)
<p>Display This Choice:</p> <p>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</p> <p>Father(s) (1)</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Display This Choice:</p> <p>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</p> <p>Mother(s) (2)</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q4 How many times has/have your parent(s) been incarcerated?

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)

☐ Father(s) (1) _____

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)

☐ Mother(s) (2) _____



Q5 What was the longest amount of time that your parent(s) spent in prison?

Display This Choice:

*If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)*

Display This Choice:

*If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)*

	Years (1)	Months (2)
<div><i>Display This Choice:</i> <i>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</i> Father(s) (1)</div>		
<div><i>Display This Choice:</i> <i>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</i> Mother(s) (2)</div>		

Q6 Is your parent(s) currently incarcerated?

Display This Choice:

*If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)*

Display This Choice:

*If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)*

	Yes (1)	No (2)
<p><i>Display This Choice:</i></p> <p><i>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</i></p> <p>Father(s) (3)</p>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i></p> <p><i>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</i></p> <p>Mother(s) (4)</p>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Is your parent(s) currently incarcerated? = Father(s) [No]

Or Is your parent(s) currently incarcerated? = Mother(s) [No]



Q7 About how long ago did your parent(s) leave prison?

Display This Choice:
If Is your parent(s) currently incarcerated? = Father(s) [No]
Display This Choice:
If Is your parent(s) currently incarcerated? = Mother(s) [No]

	Years (7)	Months (1)
<p><i>Display This Choice:</i> <i>If Is your parent(s) currently incarcerated? = Father(s) [No]</i> Father(s) (1)</p>		
<p><i>Display This Choice:</i> <i>If Is your parent(s) currently incarcerated? = Mother(s) [No]</i> Mother(s) (2)</p>		



Q8 How often did you see your parent(s) in person before they were incarcerated?

Display This Choice:
If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)

Display This Choice:
If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)

	Never (1)	Less than once a month (2)	Once a month (3)	Every Day (4)
<div>Display This Choice: If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</div> <div>Father(s) (1)</div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<div>Display This Choice: If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</div> <div>Mother(s) (2)</div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q9 How often did you communicate with your parent(s) (not in person) before they were incarcerated (through email, text, phone call, video chat)?

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)

	Never (1)	Less than once a month (2)	Once a month (3)	Every day (4)
<div>Display This Choice:</div> <div>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</div> <div>Father(s) (1)</div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<div>Display This Choice:</div> <div>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</div> <div>Mother(s) (2)</div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q10 How often did you see your parent(s) in person while they were incarcerated?

Display This Choice:

*If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)*

Display This Choice:

*If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)*

	Never (1)	Less than once a month (3)	Once a month (4)
<p><i>Display This Choice:</i></p> <p><i>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</i></p> <p>Father(s) (1)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i></p> <p><i>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</i></p> <p>Mother(s) (2)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q11 How often did you communicate with your parent(s) (not in person) while they were incarcerated (through phone calls, letters, emails, or video chat)?

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)

	Never (1)	Less than once a month (3)	Once a month (4)	Every day (2)
<p>Display This Choice:</p> <p>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</p> <p>Father(s) (1)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Display This Choice:</p> <p>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</p> <p>Mother(s) (2)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Is your parent(s) currently incarcerated? = Father(s) [No]

Or Is your parent(s) currently incarcerated? = Mother(s) [No]

Q12 How often did you visit your parent(s) in person once they were released?

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)

And Is your parent(s) currently incarcerated? = Father(s) [No]

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)

And Is your parent(s) currently incarcerated? = Mother(s) [No]

	Never (1)	Less than once a month (2)	Once a month (3)	Every day (4)
<p><i>Display This Choice:</i></p> <p><i>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</i></p> <p><i>And Is your parent(s) currently incarcerated? = Father(s) [No]</i></p> <p>Father(s) (1)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p><i>Display This Choice:</i></p> <p><i>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</i></p> <p><i>And Is your parent(s) currently incarcerated? = Mother(s) [No]</i></p> <p>Mother(s) (2)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Is your parent(s) currently incarcerated? = Father(s) [No]

Or Is your parent(s) currently incarcerated? = Mother(s) [No]



Q13 How often did you communicate with your parent(s) once they were released (through phone calls, letters, emails, or video chat)?

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)

And Is your parent(s) currently incarcerated? = Father(s) [No]

Display This Choice:


If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)

And Is your parent(s) currently incarcerated? = Mother(s) [No]

	Never (1)	Less than once a month (2)	Once a month (3)	Every day (4)
<p>Display This Choice:</p> <p>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</p> <p>And Is your parent(s) currently incarcerated? = Father(s) [No]</p> <p>Father(s) (1)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>Display This Choice:</p> <p>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</p> <p>And Is your parent(s) currently incarcerated? = Mother(s) [No]</p> <p>Mother(s) (2)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14 On a scale of 1 to 6 (1 being very bad and 6 being very good) how would you rate the quality of your relationship with your parent(s) during their incarceration?

0 1 2 3 4 5 6

Father(s) ()	
Mother(s) ()	



Q15 Did your parent(s) incarceration hurt your family’s financial situation, help your family’s financial situation, or make no difference?

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Father(s)

Display This Choice:

If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th...
= Mother(s)

	Hurt a great deal (1)	Hurt somewhat (2)	Made no diffrence (3)	Helped somewhat (4)	Helped a great deal (5)
<div>Display This Choice:</div> <div>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Father(s)</div> <div>Father(s) (1)</div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<div>Display This Choice:</div> <div>If Please indicate which of your parents have ever been incarcerated in a prison. (Check each box th... = Mother(s)</div> <div>Mother(s) (2)</div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q16 Please read each of the affects listed on the left side of the table and indicate the extent to which you typically have the following feelings.

	Very slightly or not at all (1)	A little (2)	Moderately (3)	Quite a bit (4)	Extremely (5)
Interested (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distressed (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excited (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upset (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostile (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiastic (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proud (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alert (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspired (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nervous (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Attentive (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afraid (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q17 Have you ever been incarcerated in a prison?

☐ Yes (1)

☐ No (0)

Skip To: Q22 If Have you ever been incarcerated in a prison? = No

Q18 At which point(s) in your life were you incarcerated? (Check each box that applies).

☐ Childhood (1)

☐ Adolescence (2)

☐ Adulthood (3)

Q19 How many times have you been incarcerated?

Q20 What was the longest amount of time that you spent in prison?

☐ Years (1) _____

☐ Months (2) _____

Q21 About how long ago did you leave prison?

☐ Years (1) _____

☐ Months (2) _____



Q22 Please read each of the descriptions on the left side of the table and indicate how much were you distressed by each option in the last 7 days.

	None at all (1)	A little bit (2)	Moderately (3)	Quite a bit (4)	Extremely (5)	Refused (6)
Nervousness or shakiness inside (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faintness or dizziness (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The idea that someone else can control your thoughts (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling others are to blame for most of your troubles (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trouble remembering things (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling easily annoyed or irritated (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pains in the heart or chest (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling afraid in open spaces (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thoughts of ending your life (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling that most people cannot be trusted (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor appetite (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suddenly scared for no reason (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Temper outbursts that you could not control (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Feeling lonely even when you are with people (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling blocked in getting things done (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling lonely (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling blue (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling no interest in things (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling fearful (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your feelings being easily hurt (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling that people are unfriendly or dislike you (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling inferior to others (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nausea or upset stomach (23)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling that you are watched or talked about by others (24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trouble falling asleep (25)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having to check and double check what you do (26)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Difficulty making decisions (27)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling afraid to travel on buses, subways, or trains (28)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trouble getting your breath (29)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hot or cold spells (30)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having to avoid certain things, places, or activities because they frighten you (31)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your mind going blank (32)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Numbness or tingling in parts of your body (33)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The idea that you should be punished for your sins (34)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling hopeless about the future (35)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trouble concentrating (36)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling weak in parts of your body (37)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling tense or keyed up (38)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thoughts of death or dying (39)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having urges to beat, injure, or harm someone (40)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having urges to break or smash things (41)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling very self-conscious with others (42)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling uneasy in crowds (43)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Never feeling close to another person (44)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spells of terror or panic (45)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting into frequent arguments (46)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling nervous when you are left alone (47)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Others not giving you proper credit for your achievements (48)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling so restless you couldn't sit still (49)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feelings of worthlessness (50)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Feeling that people will take advantage of you if you let them (51)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling of guilt (52)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The idea that something is wrong with your mind (53)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q23 Again, if any questions in this study make you feel uncomfortable or upset, please contact the Counseling Center:

5-4.1 LBJ Student Center
 601 University Drive
 San Marcos, Texas 78666
 Monday-Friday, 8 a.m. - 5 p.m.
 Phone: 512.245.2208
 Fax: 512.245.2234
counselingcenter@txstate.edu

REFERENCES

- Aaron, L., & Dallaire, D. H. (2010). Parental Incarceration and Multiple Risk Experiences: Effects on Family Dynamics and Children's Delinquency. *Journal of Youth and Adolescence*, 39(12), 1471–1484. <https://doi.org/10.1007/s10964-009-9458-0>
- Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology*, 30(1), 47-88. <https://doi.org/10.1111/j.1745-9125.1992.tb01093.x>
- Akhavan Abiri, F., & Shairi, M. R. (2020). Validity and reliability of symptom checklist-90-revised (SCL-90-R) and brief symptom inventory-53 (BSI-53). *Clinical Psychology and Personality*, 17(2), 169-195. <https://doi.org/10.22070/CPAP.2020.2916>
- Arditti, J. A. (2012). *Parental incarceration and the family*. New York University Press. <https://doi.org/10.18574/9780814705131>
- Cochran, J. C., Siennick, S. E., & Mears, D. P.. (2018). Social Exclusion and Parental Incarceration Impacts on Adolescents' Networks and School Engagement. *Journal of Marriage and Family*, 80(2), 478–498. <https://doi.org/10.1111/jomf.12464>
- Comfort, M., Nurse, A. M., McKay, T., & Kramer, K. (2011). Taking children into account: Addressing the intergenerational effects of parental incarceration. *Criminology & Pub. Pol'y*, 10, 839. <https://doi.org/10.1111/j.1745-9133.2011.00750.x>

- Condry, R., & Minson, S. (2021). Conceptualizing the effects of imprisonment on families: Collateral consequences, secondary punishment, or symbiotic harms? *Theoretical Criminology*, 25(4), 540–558. <https://doi.org/10.1177/1362480619897078>
- Crawford, J. R., & Henry, J. D. (2004). The Positive and Negative Affect Schedule (PANAS): Construct validity, measurement properties and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 43(3), 245–265. <https://doi.org/10.1348/0144665031752934>
- Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: an introductory report. *Psychological Medicine*, 13(3), 595–605. <https://doi.org/10.1017/s0033291700048017>
- Gaston, S. (2016). The Long-term Effects of Parental Incarceration. *Criminal Justice and Behavior*, 43(8), 1056–1075. <https://doi.org/10.1177/0093854816628905>
- Glaze, L. E., & Maruschak, L. M. (2010). Parents in prison and their minor children [Special Issue]. Bureau of Justice Statistics.
- Hagan, J., & Foster, H. (2012). Children of the American Prison Generation: Student and School Spillover Effects of Incarcerating Mothers. *Law & Society Review*, 46(1), 37-69. <https://doi.org/10.1111/j.1540-5893.2012.00472.x>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.

- Lee, R. D., Fang, X., & Luo, F. (2013). The Impact of Parental Incarceration on the Physical and Mental Health of Young Adults. *Pediatrics*, *131*(4), e1188–e1195. <https://doi.org/10.1542/peds.2012-0627>
- Mo, P. K. H., Fong, V. W. I., Song, B., Di, J., Wang, Q., & Wang, L. (2021). Association of Perceived Threat, Negative Emotions, and Self-Efficacy with Mental Health and Personal Protective Behavior Among Chinese Pregnant Women During the COVID-19 Pandemic: Cross-sectional Survey Study. *Journal of Medical Internet Research*, *23*(4), e24053. <https://doi.org/10.2196/24053>
- Mowen, T. J., & Visser, C. A. (2016). Changing the ties that bind: How incarceration impacts family relationships. *Criminology & Public Policy*, *15*(2), 503-528. <https://doi.org/10.1111/1745-9133.12207>
- Murphey, D., & Cooper, P. M. (2015). Parents behind bars. *What happens to their children*, 1-20. <https://www.childtrends.org/publications/parents-behind-bars-what-happens-to-their-children>
- Murray, J., Farrington, D. P., & Sekol, I. (2012). Children's antisocial behavior, mental health, drug use, and educational performance after parental incarceration: a systematic review and meta-analysis. *Psychological bulletin*, *138*(2), 175. <https://doi:10.1037/a0026407>

- Ogunbode, C. A., Pallesen, S., Böhm, G., Doran, R., Bhullar, N., Aquino, S., Marot, T., Schermer, J. A., Wlodarczyk, A., Lu, S., Jiang, F., Salmela-Aro, K., Hanss, D., Maran, D. A., Ardi, R., Chegeni, R., Tahir, H., Ghanbarian, E., Park, J., ... Lomas, M. J.. (2021). Negative emotions about climate change are related to insomnia symptoms and mental health: Cross-sectional evidence from 25 countries. *Current Psychology*. <https://doi.org/10.1007/s12144-021-01385-4>
- Phillips, S. D., Burns, B. J., Wagner, H. R., Kramer, T. L., & Robbins, J. M. (2002). None. *Journal of Child and Family Studies*, 11(4), 385–399. <https://doi.org/10.1023/a:1020975106679>
- Stewart, L. A., Harris, A. J. R., Wilton, G., Archambault, K., Cousineau, C., Varrette, S., & Power, J. (2010). *An initial report on the results of the pilot of the Computerized Mental Health Intake Screening System (CoMHISS)*. Correctional Service of Canada, Research Branch.
- Turney, K. (2017). Unmet Health Care Needs among Children Exposed to Parental Incarceration. *Maternal and Child Health Journal*, 21(5), 1194–1202. <https://doi.org/10.1007/s10995-016-2219-2>
- Wildeman, C. (2009). Parental imprisonment, the prison boom, and the concentration of childhood disadvantage. *Demography*, 46(2), 265–280. <https://doi.org/10.1353/dem.0.0052>

Young, B., Collier, N. L., Siennick, S. E., & Mears, D. P. (2020). Incarceration and the Life Course: Age-Graded Effects of the First Parental Incarceration Experience. *Journal of Developmental and Life-course Criminology*, 6(3), 256–279.
<https://doi.org/10.1007/s40865-020-00143-7>