



Childhood Traumatization and Mental Health of Young Offenders Incarcerated in Punjab Prisons: Moderating Role of Self- Regulatory Efficacy

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ABSTRACT

Very little research in Pakistan exists about the mental health of young offenders in prisons. The present study aimed to examine the relationship between childhood traumas, self-regulatory efficacy, and mental health in young offenders. It was hypothesized that childhood traumas would positively be correlated with psychological distress and negatively correlated with psychological well-being. Also, self-regulatory efficacy would moderate between childhood traumas and mental health. This was a correlational study with a cross-sectional research design. A purposive sample of 150 offenders ($M_{age}=21$, $SD=1.88$) was drawn from two District Jails in two cities of Punjab province, Pakistan. Results revealed that childhood traumas were positively correlated with psychological distress and negatively with psychological wellbeing; self-regulatory efficacy was positively correlated with psychological wellbeing and negatively with psychological distress; and the relationship between physical abuse and psychological wellbeing was moderated by self-regulatory efficacy. This study concludes with key recommendations for prison authorities and policymakers to manage mental health in prison settings.

Keywords: Childhood Traumas, Self-Regulatory Efficacy, Psychological Well-being, Psychological Distress, Young Offenders

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INTRODUCTION

Young adults who have faced the criminal justice system are a vulnerable population that has to be taken into consideration by the community and those in charge of shaping policy. A lack of self-control may be a factor in the development of mental health issues following exposure to violence in infancy (Pechorro et al., 2021). In addition to raising the risk of criminal recidivism, mental health problems in young offenders are linked to several detrimental outcomes, including substance abuse, risky sexual behavior, behavioral disturbances during incarceration, and suicide attempts (Stoddard-Dare et al., 2011). Addressing young offenders' mental health needs through efficient therapy interventions may help to increase their general satisfaction and well-being in addition to lowering the rate of criminal behavior.

The number of total prisons is 120 in all four provinces of Pakistan and a total of 77,275 prisoners are incarcerated in these prisons (Nabi et al., 2021). In Pakistani prisons, 35.5 percent of inmates are legal offenders for whom the government has declared a prison sentence, while 64.5% are in pre-trial or trial phases. 98.6% of them are men, 1.6% are women, 1.7% are juveniles, and 1.2% are foreign nationals (World Prison Brief, 2019). Prior research with offenders has mostly focused on particular mental outcomes, such as substance use disorders or Post-traumatic Stress Disorder (PTSD). Furthermore, because the criminal population is not given much attention in Pakistan, there is a dearth of literature on self-regulatory behaviors. By offering more empirical data on the connection between negative childhood experiences, self-regulatory efficacy, and a more comprehensive focus on mental health—which includes psychological well-being and psychological distress in young offenders—this study sought to fill this gap in research. Assessing the psychological well-being and comprehending particular risk

elements of young offenders in Pakistan is critically needed to develop treatment interventions that may prevent a chronic criminal lifestyle.

LITERATURE REVIEW

Young offenders have significant prevalence rates of mental disorders (Bielas et al., 2016). More than half (64%), of incarcerated young offenders in prisons report mental health concerns (Collier, 2014). A variety of factors, including developmental, social, psychological, environmental, and neurobiological ones, have a role in the etiology of mental diseases. Childhood traumas, encompassing abuse, as well as neglect, in any form constitute a significant risk factor closely associated with the emergence of mental disorders (Brown et al., 2017). Young offenders tend to report childhood traumas more frequently than non-offenders, and this elevated prevalence of poly-victimization may account for the higher incidence of mental disorders among young offenders (Turner et al., 2021). Furthermore, negative childhood experiences not only heighten the likelihood of early first-time and repeat criminal behaviors but also contribute to criminal recidivism, ~~in addition to the risk posed by mental disorders~~ (Reavis et al., 2013).

Late adolescence is a crucially sensitive time for the development of the prefrontal cortex, which controls self-regulation. Because the prefrontal cortex takes a while to mature, immediate contextual influences like familial experiences are crucial for the growth of self-regulation. Negative childhood experiences may have an impact on neural connections between several brain regions involved in self-regulation as well as brain shape and function (Cross et al., 2017). The prefrontal cortex, hippocampus, amygdala, and other areas of the brain necessary for self-regulation are all negatively impacted by childhood traumas in terms of their growth and structural makeup (Holz et al., 2023). Well-developed self-regulatory efficacy gives people the tools they need to assist with major life transitions that occur as they enter adulthood, which can

lead to more gratifying experiences and potentially lessen the likelihood of mental health issues like depression and anxiety (Rollins & Crandall, 2021).

Evidence from the literature also suggests that executive control, including self-regulation, memory, attention, planning, intelligence, and processing speed are all important components of cognitive processing, which is crucial when combined with childhood trauma (Hofmann et al., 2012). Self-regulatory capacity serves as a foundational pillar for all cognitive processing, enabling the enhancement of cognitive abilities to achieve academic or social goals, while also facilitating the regulation of emotions (Perkins et al., 2012). Children exposed to violence often exhibit self-regulatory deficits, suggesting that such deficiencies may contribute to the development of mental health issues later in life following exposure to violence during childhood (Van Der Merwe & Dawes, 2000).

Individuals with childhood traumas are 20% more likely to engage in criminal behaviors than those who did not experience traumas in their childhood (Anjum & Bano, 2020). A study was conducted in a western state of the United States to determine the prevalence of adverse childhood experiences and the result showed that approximately 52% of the offenders reported having four or more adverse childhood experiences (Clements-Nolle & Waddington, 2019). The most common traumas experienced by offenders are physical abuse; a form of maltreatment that entails using force or violence to hurt or inflict bodily harm on another individual. Physical abuse can take various forms, including slapping, hitting, throwing, punching, slapping, kicking, tickling, choking, burning, biting, or using other things to inflict harm (Burri et al., 2013) and physical neglect; a form of maltreatment characterized by the failure of caregivers or parents to provide for a child's basic physical needs adequately. Physical neglect includes not providing enough food and nutrition for the child's growth and development, failing to provide appropriate

clothing for the child leaving them exposed to extreme weather conditions, and not providing a safe and stable living environment for the child leading to exposure to harsh elements or living in unsanitary conditions, neglecting to seek medical attention when a child is sick or injured which can lead to worsened health conditions, and neglecting the child's personal hygiene (Wolff & Shi, 2012).

Turner and colleagues (2021) found a positive association between childhood traumas and mental health problems in young offenders. Moreover, childhood traumas are positively associated with psychological distress among offenders. Exposure to abuse and trauma in childhood reduces the self-regulatory capacity in later life (Lackner et al., 2018). Individuals who have low levels of self-regulatory capacity are more likely to engage in criminal activities (Shafiq & Asad, 2020) and those who are involved in criminal activities have poor psychological well-being (Rollins & Crandall, 2022).

According to trauma theory (Bloom, 2019, Chapter 1), traumatic childhood experiences can profoundly impact individuals' mental health, giving rise to three distinct symptom clusters: hyperarousal, constriction, and intrusion. Hyperarousal occurs when distressing memories trigger a person's sympathetic nervous system, leading to heightened alertness and reactivity. A persistent state of self-protective vigilance that is difficult to control or deactivate can be sustained by chronic hyperarousal. Traumatized people frequently suffer constriction, which can cause them to lose their ability to respond on a physiological, emotional, and cognitive level. Constriction can be a coping strategy used by survivors to prevent unpleasant trauma-related reactions, as opposed to intrusion, when survivors relive the trauma through fragmented visions and powerful feelings of the original experience. The victims experience overwhelming trauma that undermines their sense of safety and trust as well as their sense of agency, purpose, and

connection to others. As a result, people who have experienced trauma or unfavorable childhood incidents are more likely to struggle with mental health problems (Huang et al., 2021).

The developmental psychopathology viewpoint addresses the link between childhood traumas, mental health, and criminal behaviors (Turner et al., 2021). Adverse childhood events can alter chromosome structure or the way the growing brain functions, which can have an impact on an individual's biology and neuropsychology. The probability of developing mental health issues such as depression, personality disorders, substance use disorders, or antisocial behaviors, which are known to be connected to crime and other unfavorable consequences, is increased as a result of these developmental vulnerabilities (Toth & Cicchetti, 2013).

Moffitt's developmental taxonomy (Moffitt, 2010) proposes that individuals who fall into the life-course-persistent offender category, committing crimes from childhood into adulthood, are more likely to have had negative childhood experiences (Leaw et al., 2015). These experiences can lead to inappropriate neurobiological development, resulting in neurocognitive deficits. These deficits contribute to behavioral issues in the affected individuals, which then interact with maladaptive and dysfunctional social environments over time, ultimately leading to mental health problems. Consequently, there is a higher risk of engaging in criminal behaviors in the future. Based on the literature, the present study hypothesized that:

H1. Childhood traumas are negatively related to the psychological well-being of young offenders.

H2. Childhood traumas would positively be related to psychological distress in young offenders.

H3. Self-regulatory efficacy would moderate the relationship between childhood traumas and psychological well-being.

H4. Self-regulatory efficacy would moderate the relationship between childhood traumas and psychological distress.

METHODOLOGY

Research Design

The present study is correlational cross-sectional research.

Participants

The sample of the study consisted of young offenders incarcerated in prisons of Punjab. The sample was drawn from two prisons- District Jail, Sheikhpura, and District Jail, Kasur after obtaining permission from the concerned jail authorities. The sample required for the study was calculated by using G-power (Erdfelder et al., 1996), which came to 150 target samples. A non-probability purposive sampling strategy was used to collect data from 150 young offenders incarcerated in prisons. Both men and women offenders with the age range of 19-25 years were included. Offenders who were incarcerated under the anti-terrorism act, of 1997, or for religious offenses (i.e. under Section 295 A, B, and C of the Pakistan Penal Code) were not part of the sample. Prisoners confined in solitary confinement were not included due to security concerns. Table 1 summarizes the socio-demographic characteristics of sample. There were 53.3% men and 46.7% women. Majority at 68.0% were uneducated and belong to rural areas 76.0%. More than half are imprisoned due to drug-related crimes (51.3%), have been imprisoned for the first time (79.3%), and are under trial (82.7%).

Table 1
Socio-demographic characteristics of the participants (N=150)

Variables	f	%
Gender		
Men	80	53.3
Women	70	46.7
Education		
Uneducated	102	68.0
Primary	25	16.7
Middle	11	7.3
Matric or above	12	8.0
Area of residence		
Rural	114	76.0
Urban	36	24.0
Type of Crime Committed		
Drug-related crimes	77	51.3
Fights/Attempt to murder	22	14.6
Murder	16	10.7
Theft/Dacoity	22	14.7
Rape or Adultery	9	6.1
Kidnapping	4	2.7
How many times being imprisoned		
First time	119	79.3
More than one time	31	20.7
Legal Status		
Under trial	124	82.7
Convicted	26	17.3

Assessment Measures

The following standardized scales were used in the current study.

Personal Information Sheet

The personal information sheet consisted of the following items- age, gender, education, residential area, relationship status, number of children (if married), monthly income, type of crime committed, legal status, times of being imprisoned, duration in prison, family history of incarceration and parent's divorce or separation.

Childhood Trauma Questionnaire (Bernstein & Fink, 1998)

The Childhood Trauma Questionnaire was originally developed by Bernstein and Fink (1997).

Urdu translation (Butt, 2013) of the questionnaire was used in the present study. It is a self-report assessment instrument intended to gauge the many types of childhood trauma that people 12

years of age or older have encountered. Participants are asked to score the frequency of traumatic experiences on a 5-point Likert scale, where 1 represents 'never true' and 5 represents 'very often true', for each of the 28 items in the questionnaire. This questionnaire comprises five subscales: physical abuse, mental abuse, sexual abuse, physical neglect, and physical abuse. Each subscale contains five items, three of which are categorized as minimization or denial to check for excessive response bias. With a Cronbach's α of 0.85, the Childhood Trauma Questionnaire showed strong internal consistency. Furthermore, the five subscales' Cronbach's α values were sorted from highest to lowest; 0.85 for emotional neglect, 0.76 for sexual abuse, 0.71 for physical abuse, 0.67 for emotional abuse, and 0.82 for physical neglect. The Urdu-translated version of this scale was used in this study.

Self-Regulatory Efficacy Scale

A subscale of the children's self-efficacy component is the self-regulatory efficacy measure. Bandura created it to quantify the various spheres of life (Bandura, 2006). The self-regulatory efficacy scale has eight items. The self-regulatory efficacy measure evaluates a person's assessed capacity to withstand peer pressure to partake in risky behaviors that could cause them to become distressed or get into trouble. Participants score each task on a 10-point Likert scale: 0 represents 'cannot do at all', 50 represents 'can do somewhat', and 100 represents 'highly certain can do'. This scale has a Cronbach's reliability coefficient of $\alpha=.75$. For use in the current investigation, the scale was adapted and translated into Urdu using MAPI (n.d.) guidelines.

Mental Health Inventory

Veit and Ware (1983) developed the mental health inventory, and it has been translated by Khan and colleagues (2015). It consists of 38 items and has two subscales: psychological well-being and psychological distress. The subscale of psychological distress consists of 21 items and

psychological well-being consists of 17 items. Responses of all items of psychological distress subscale have to be reverse coded. Participants are asked to rate their responses on a 6-point Likert scale, where 1= always and 6= never. Cronbach alpha reliability of mental health inventory is $\alpha=.93$, of psychological well-being, is $\alpha=.96$, and of psychological distress is $\alpha=.95$. In this study, the Urdu-translated version of mental health inventory was used.

Procedure

Initially, permission was obtained from the original authors of the scales via email. Permission was also taken from the authors who had translated the required scales in the Urdu language. Then the topic of the research was approved by the departmental ethical committee of the Institute of Applied Psychology, University of the Punjab, Lahore. Next, permission to collect data was taken from two prisons- District Jail, Sheikhpura, and District Jail, Kasur through letters written to the IG of Prisons, Punjab. Permission of 2 days was granted by the IG of Prisons, Punjab, to collect data from both prisons i.e., 1 day for each prison.

Proper security was ensured inside the prison. During interaction with the prisoners, rapport was developed, and confidentiality of their responses was ensured to elicit their true responses. They were informed that the information taken from them would be used only for research purposes. Any kind of information would not be provided to the Jail staff and authorities. Each participant was provided with the consent form to get their written consent to participate in research, and then a personal information sheet was given to be filled. The participants filled out the questionnaire under the researcher's supervision. Each participant was given the right to withdraw from the research. The environment provided during data collection was secure and satisfactory.

Data Analysis

The present study aimed to examine the relationship between childhood traumas (physical abuse, emotional abuse, physical neglect, emotional neglect, and sexual abuse), self-regulatory efficacy, and mental health (psychological well-being and psychological distress) in young offenders.

Data was analyzed with SPSS version 23. First reliability and descriptive analysis was done.

Pearson Product Moment Correlation analysis was done next to find the relationship between study variables. Multiple Hierarchical Regression analysis was also done to find out the

predictors of psychological distress and psychological well-being and the moderating role of self-regulatory efficacy in the relationship between childhood traumas (physical abuse, emotional abuse, physical neglect, sexual abuse, and emotional neglect) and mental health (psychological well-being and psychological distress). After that, for those variables where self-regulatory efficacy showed a significant moderating role, Jeremy Dawson's Simple Slope Analysis through two-way linear interaction, was conducted to determine the moderating effect (enhancing, buffering, antagonistic) of self-regulatory efficacy.

Reliability Analysis

Table 2 shows that the reliabilities of all scales were within acceptable range.

Table 2
Descriptive Statistics and Reliabilities of study variables (N = 150)

Variables	<i>M</i>	<i>SD</i>	Range	<i>α</i>
Childhood Traumas	70.40	10.06	46 – 91	.85
Physical Abuse	14.26	2.74	7 – 20	.85
Physical Neglect	16.39	3.02	8 – 23	.76
Emotional Abuse	15.95	3.78	7 – 23	.83
Emotional Neglect	20.75	3.18	11 – 24	.88
Sexual Abuse	14.54	3.57	5 – 22	.80
Self-Regulatory Efficacy	313.27	140.61	110 – 590	.89
Mental Health	134.26	5.02	116 – 151	.95
Psychological Wellbeing	59.43	16.63	19 – 85	.92
Psychological Distress	74.83	15.90	49 – 99	.94

Note. *M*=Mean; *SD*=Standard Deviation; *α* = Cronbach alpha

RESULTS

Correlation analysis

Pearson product-moment correlation analysis was used to examine the relationship between demographics and study variables (Table 3). Results showed that childhood trauma ($r=-.26$, $p<.001$) along with its four subscales (physical abuse ($r=-.24$, $p<.01$), physical neglect ($r=-.48$, $p<.001$), emotional neglect ($r=-.26$, $p<.001$), and sexual abuse ($r=-.27$, $p<.001$)) has a negative relationship with psychological wellbeing. Additionally, childhood trauma ($r=.29$, $p<.001$) along with its four subscales (physical abuse ($r=.27$, $p<.001$), physical neglect ($r=.54$, $p<.001$), emotional neglect ($r=.36$, $p<.001$), and sexual abuse ($r=.33$, $p<.001$)) has a positive relationship with psychological distress. Physical neglect ($r=-.22$, $p<.01$), emotional neglect ($r=-.27$, $p<.001$), and sexual abuse ($r=-.22$, $p<.01$) had negative relationship with self-regulatory efficacy. Results also showed that self-regulatory efficacy ($r=.16$, $p<.05$) had a positive relationship with psychological well-being while self-regulatory efficacy ($r=-.23$, $p<.01$) had a negative relationship with psychological distress.

Table 3
Correlation between Childhood Traumas, Self-Regulatory Efficacy, Psychological Well-being, and Psychological Distress (N = 150)

Variables	M	SD	2	3	4	5	6	7	8	9
1 Childhood Traumas	70.40	10.06	.76***	.91***	.53***	.96***	.93***	-.10	-.26***	.29***
2 Physical Neglect	16.39	3.02	-	.54***	.66***	.68***	.75***	-.22**	-.48***	.54***
3 Emotional Abuse	15.95	3.78		-	.58***	.91***	.87***	-.09	-.10	.13
4 Emotional Neglect	20.75	3.18			-	.62***	.73***	-.27***	-.26***	.36***
5 Physical Abuse	14.26	2.74				-	.94***	-.00	-.24**	.27***
6 Sexual Abuse	14.54	3.57					-	-.22**	-.27***	.33***
7 Self-Regulatory Efficacy	313.27	140.61						-	.16*	-.23**
8 Psychological Wellbeing	59.43	16.63							-	.95***
9 Psychological Distress	74.83	15.90								-

Note. M=Mean; SD=Standard Deviation; * $p <.05$, ** $p<.01$, *** $p<.001$

Table 4 shows the correlation between demographics, psychological well-being, and psychological distress in young offenders. Only age has a significant relationship with

psychological well-being and psychological distress. Age ($r=.17, p<.05$) was positively correlated with psychological well-being while age ($r=-.18, p<.05$) was negatively correlated with psychological distress.

Table 4
Correlation between demographics, Psychological Well-being, and Psychological Distress in Young Offenders (N = 150)

Variables	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Age	.06	.13	-.05	.08	.10	.01	.14	.15	.24**	.24**	.05	.02	.17*	-.18*
2 Gender		.23**	.07	.07	.01	.45**	.12	-.05	.38**	.36**	.09	.11	-.01	-.01
3 Education			.20*	.15	.13	.09	.41**	-.18*	.09	.13	.02	.03	-.08	.05
4 Residential Area				.04	.06	.12	.13	-.09	-.05	-.06	.01	.07	-.00	.01
5 Relationship Status					.84**	.02	.05	-.05	-.01	-.01	.08	.06	-.05	.04
6 Number of Children						.03	-.02	-.05	-.02	-.03	.13	.01	-.06	.04
7 Self-Monthly Income							-.09	-.03	.12	.12	.02	-.07	-.11	.05
8 Type of Crime								-.07	.13	.15	-.07	.21*	-.04	.05
9 Times of being imprisoned									-.10	-.07	-.11	.08	-.06	.05
10 Legal Status										-.89**	.08	.13	.13	-.14
11 Duration in Prison											-.06	.15	.08	-.08
12 Family history of incarceration												-.14	-.11	.09
13 Parents' divorce or separation													-.16	-.13
14 Psychological Wellbeing														-.95**
15 Psychological Distress														

Note: * $p <.05$, ** $p <.01$, *** $p <.001$

Multiple Hierarchical Regression Analysis for Moderation

Multiple hierarchical regression analysis was done to find out the moderating effect of self-regulatory efficacy in the relationship between childhood trauma and mental health (Table 5).

The overall model explained a 50% variance. In Step 1, the model was significant at $F(1, 147) = 5.15, p <.05$, and explained a 3% variance in psychological distress. The standardized value of beta depicted that age was a negative predictor of psychological distress. In Step 2, the model was significant at $F(2, 146) = 9.00, p <.001$, and explained 34% variance. This showed that childhood trauma positively predicted psychological distress. In Step 3, the model was significant at $F(3, 145) = 7.99, p <.001$, and accounted for a 39% variance in psychological

distress. It showed that self-regulatory efficacy was a negative predictor of psychological distress. In Step 4, the model was significant at $F(4, 144) = 5.95, p < .001$, and accounted for 50% variance. Results showed that self-regulatory efficacy did not moderate the relationship between childhood trauma and psychological distress.

Table 5
Moderation through Multiple Hierarchical Regression Analysis of Childhood Trauma, Self-Regulatory Efficacy, and Psychological Distress in Young Offenders (N=150)

Variables	B	95% C.I		SE	β	R ²	ΔR^2
		LL	UL				
Step 1						.03	.03*
(Constant)	108.70***	79.11	138.23	14.98			
Age	-1.56*	-2.91	-.20	.69	-.18*		
Step 2						.11	.08**
(Constant)	73.67***	39.06	108.28	17.51			
Age	-1.36*	-2.67	-.05	.66	-.16*		
Childhood Traumas	.44**	.19	.68	.12	.28**		
Step 3						.14	.03*
(Constant)	77.68***	43.41	111.95	17.34			
Age	-1.17	-2.47	.13	.66	-.14		
Childhood Traumas	.41**	.17	.66	.12	.26**		
Self-Regulatory Efficacy	-.02*	-.04	-.00	.01	-.18*		
Step 4						.14	.00
(Constant)	75.09**	20.24	129.94	27.75			
Age	-1.18	-2.48	.13	.66	-.14		
Childhood Traumas	.45	-.24	1.15	.35	.29		
Self-Regulatory Efficacy	-.02*	-.04	-.00	.01	-.19*		
Childhood Trauma X SRE	-.00	-.00	.00	.00	-.03		

Note: B=Unstandardized Coefficient; CI=Confidence Interval; UL=Upper Limit, LL=Lower Limit, S.E=Standard Error; β =Standardized Coefficient; R²=R square; ΔR^2 =R square change; *p<.05, **p<.01, ***p<.001,

Table 6 shows results for the moderating effect of self-regulatory efficacy in the relationship between types of childhood traumas (physical abuse, physical neglect, emotional abuse, emotional neglect, sexual abuse) and psychological distress. The overall model explained 55% variance. In Step 1, the model was significant at $F(1, 146) = 5.21, p < .05$, and explained a 3% variance in psychological distress. The standardized value of beta depicted that age was a negative predictor of psychological distress. In Step 2, the model was significant at $F(6, 141) = 14.77, p < .001$, and explained 39% variance. This showed that physical neglect positively and emotional abuse negatively predicted psychological distress. In Step 3, the model was significant at $F(7, 140) = 15.23, p < .001$, and accounted for a 43% variance in psychological distress. It

showed that self-regulatory efficacy was a negative predictor of psychological distress. In Step 4, the model was significant at $F(12, 135) = 13.97, p < .001$, and accounted for 55% variance.

Results showed that self-regulatory efficacy moderated the relationship between physical abuse and psychological distress, and it also moderated the relationship between physical neglect and psychological distress.

Table 6
Moderation through Multiple Hierarchical Regression Analysis of Physical Abuse, Physical Neglect, Emotional Abuse, Emotional Neglect, Sexual Abuse, Self-Regulatory Efficacy and Psychological Distress in Young Offenders (N=150)

Variables	B	95% C.I		SE	β	R ²	ΔR^2
		LL	UL				
Step 1						.03	.03*
(Constant)	109.15***	79.36	138.94	15.07			
Age	-1.57*	-2.94	-.21	.69	-.19*		
Step 2						.39	.35***
(Constant)	42.90*	9.64	76.17	16.83			
Age	-.90	-2.03	.22	.57	-.11		
Physical Abuse	2.87	-.12	5.86	1.51	.49		
Physical Neglect	3.00***	1.82	4.19	.60	.56***		
Emotional Abuse	-2.63**	-4.15	-1.10	.77	-.62**		
Emotional Neglect	.56	-.47	1.59	.52	.11		
Sexual Abuse	-.55	-2.80	1.69	1.13	-.12		
Step 3						.43	.05***
(Constant)	39.39*	7.22	71.56	16.27			
Age	-.71	-1.80	.38	.55	-.08		
Physical Abuse	7.22***	3.38	11.07	1.95	1.25***		
Physical Neglect	2.90***	1.76	4.05	.58	.55***		
Emotional Abuse	-3.52***	-5.08	-1.96	.79	-.83***		
Emotional Neglect	.69	-.31	1.68	.51	.14		
Sexual Abuse	-3.20*	-5.86	-.54	1.35	-.72*		
Self-Regulatory Efficacy	-.03***	-.06	-.01	.01	-.30***		
Step 4						.55	.12***
(Constant)	174.71***	70.29	279.14	52.80			
Age	-.35	-1.35	.65	.51	-.04		
Physical Abuse	-12.90**	-22.47	-3.33	4.84	-2.22**		
Physical Neglect	-1.33	-4.82	2.16	1.77	-.25		
Emotional Abuse	-3.09	-6.89	.72	1.93	-.73		
Emotional Neglect	-.63	-4.94	3.68	2.18	-.13		
Sexual Abuse	13.39***	6.23	20.55	3.62	3.00***		
Self-Regulatory Efficacy	-.12***	-.15	-.08	.02	-1.04***		
Physical Abuse X SRE	.07***	.03	.10	.02	2.61***		
Physical Neglect X SRE	.02**	.01	.03	.01	1.03**		
Emotional Abuse X SRE	.00	-.01	.02	.01	.08		
Emotional Neglect X SRE	.00	-.02	.02	.01	.10		
Sexual Abuse X SRE	-.06	-.08	.03	.01	-3.40		

Note: B=Unstandardized Coefficient; CI=Confidence Interval; UL=Upper Limit, LL=Lower Limit, S.E=Standard Error; β =Standardized Coefficient; R²=R square; ΔR^2 =R square change; *p<.05, **p<.01, ***p<.001,

In Figure 1, simple slope analysis shows the buffering effect of self-regulatory efficacy in the relationship between physical abuse and psychological distress, indicating people have a higher level of self-regulatory efficacy and a low level of psychological distress even in the presence of physical abuse. In Figure 2, simple slope analysis shows the buffering effect of self-regulatory efficacy in the relationship between physical neglect and psychological distress, indicating that people having a higher level of self-regulatory efficacy have a low level of psychological distress even in the presence of physical neglect.

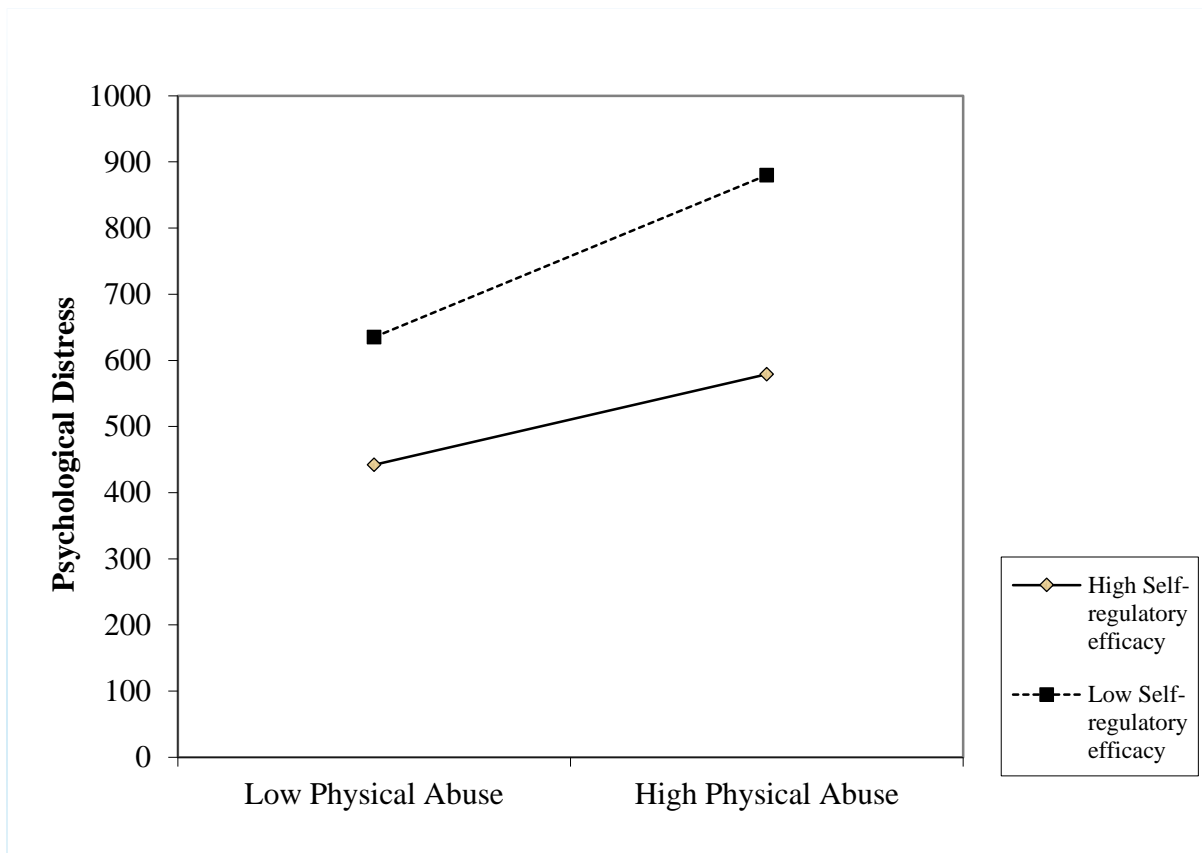


Figure 1
Simple Slope Analysis showing the Moderating Effect of Self-Regulatory Efficacy in the Relationship between Physical Abuse and Psychological Distress.

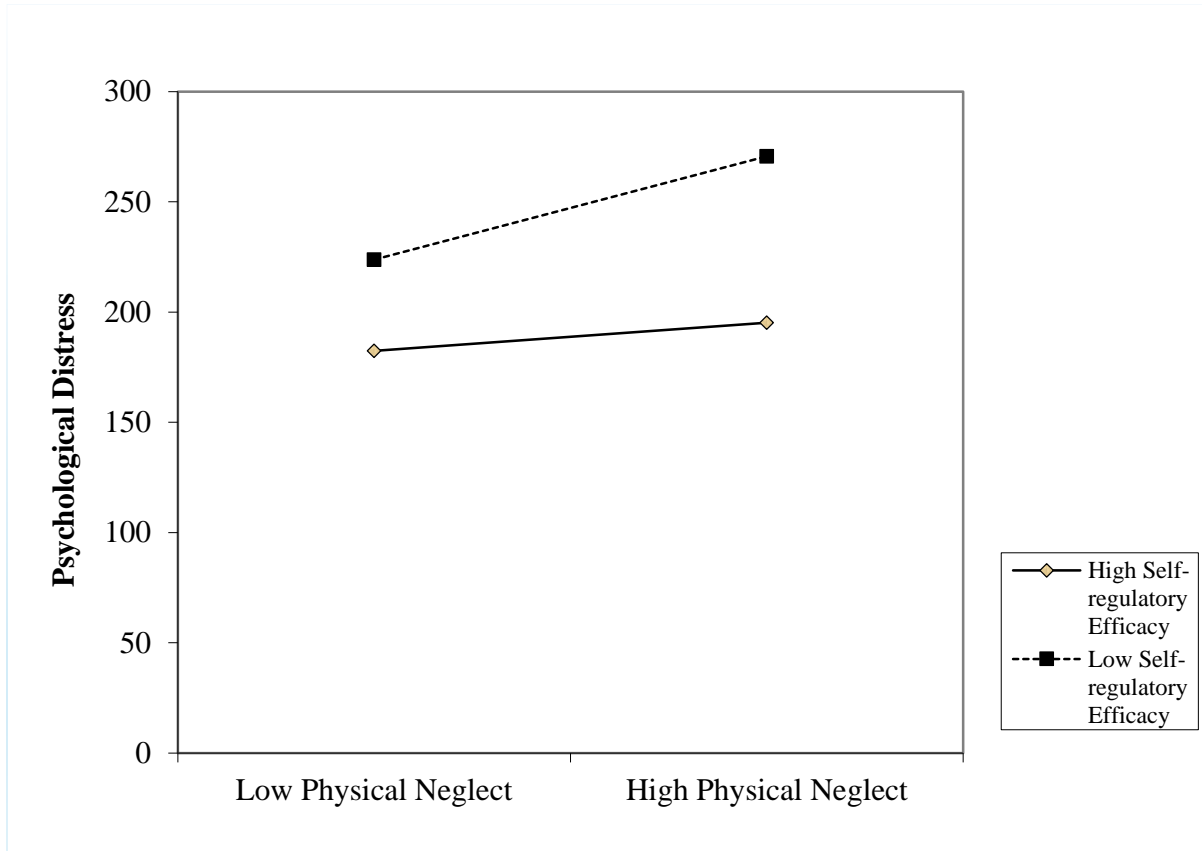


Figure 2
Simple Slope Analysis showing the Moderating Effect of Self-Regulatory Efficacy in the Relationship between Physical Neglect and Psychological Distress.

Table 7 shows results for the moderating effect of self-regulatory efficacy in the relationship between childhood traumas and psychological well-being. The results suggest that the overall model explained a 10.9% variance. In Step 1, the model was significant at $F(1, 147) = 4.47, p < .05$, and explained a 3% variance in psychological well-being. The standardized value of beta depicted that age was a positive predictor of psychological well-being. In Step 2, the model was significant at $F(2, 146) = 7.35, p < .01$, and explained 9% variance. This showed that childhood trauma negatively predicted psychological well-being. In Step 3, the model was significant at $F(3, 145) = 5.75, p < .001$, and accounted for an 11% variance in psychological well-being. It showed that self-regulatory efficacy was not a significant predictor of psychological well-being.

In Step 4, the model was significant at $F(4, 144) = 4.39, p < .05$, and accounted for 11% variance. Results showed that self-regulatory efficacy did not moderate the relationship between childhood trauma and psychological well-being.

Table 7

Moderation through Multiple Hierarchical Regression Analysis of Childhood Trauma, Self-Regulatory Efficacy and Psychological well-being in Young Offenders (N=150)

Variables	B	95% CI		SE	β	R ²	ΔR^2
		LL	UL				
Step 1						.03	.03*
(Constant)	26.34	-4.67	57.36	15.70			
Age	1.52*	.10	2.94	.72	.17*		
Step 2						.09	.06**
(Constant)	59.44**	22.88	96.00	18.50			
Age	1.34	-.05	2.72	.70	.15		
Childhood Traumas	-.41**	-.67	-.16	.13	-.25**		
Step 3						.11	.02
(Constant)	56.59**	20.03	93.16	18.50			
Age	1.20	-.19	2.59	.70	.14		
Childhood Traumas	-.40**	-.66	-.14	.13	-.24**		
Self-Regulatory Efficacy	.02	-.00	.03	.01	.12		
Step 4						.11	.00
(Constant)	71.12*	12.67	129.57	29.57			
Age	1.23	-.17	2.62	.71	.14		
Childhood Traumas	-.62	-1.36	.12	.38	-.38		
Self-Regulatory Efficacy	.02	-.00	.04	.01	.14		
Childhood Trauma X SRE	.00	-.00	.00	.00	.15		

Note: B=Unstandardized Coefficient; CI=Confidence Interval; UL=Upper Limit, LL=Lower Limit, S.E=Standard Error; β =Standardized Coefficient; R²=R square; ΔR^2 =R square change; *p<.05, **p<.01, ***p<.001,

Table 8 shows results for the moderating effect of self-regulatory efficacy in the relationship between types of childhood traumas (physical abuse, physical neglect, emotional abuse, emotional neglect, sexual abuse) and psychological well-being. The results suggested that the overall model explained 50% variance. In Step 1, the model was significant at $F(1, 146) = 4.66, p < .05$, and explained a 3% variance in psychological well-being. The standardized value of beta depicted that age was a positive predictor of psychological well-being. In Step 2, the model was significant at $F(6, 141) = 12.15, p < .001$, and explained 34% variance. This showed that physical abuse and physical neglect negatively predicted psychological well-being while emotional abuse positively predicted psychological well-being. In Step 3, the model was significant at $F(7, 140) = 12.93, p < .001$, and accounted for a 39% variance in psychological well-being. It showed that

self-regulatory efficacy was a positive predictor of psychological well-being. In Step 4, the model was significant at $F(12, 135) = 11.37, p < .001$, and accounted for 50% variance. Results showed that self-regulatory efficacy moderated the relationship between physical abuse and psychological well-being, and it also moderated the relationship between physical neglect and psychological well-being.

Table 8
Moderation through Multiple Hierarchical Regression Analysis of Physical Abuse, Physical Neglect, Emotional Abuse, Emotional Neglect, Sexual Abuse, Self-Regulatory Efficacy, and Psychological Well-being in Young Offenders (N=150)

Predictors	B	95% C.I		SE	β	R ²	ΔR^2
		LL	UL				
Step 1						.03	.03*
(Constant)	25.43	-5.75	56.61	15.78			
Age	1.56*	.13	2.98	.72	.18*		
Step 2						.34	.31***
(Constant)	89.47***	53.46	125.49	18.22			
Age	.96	-.26	2.18	.62	.11		
Physical Abuse	-4.41**	-7.64	-1.17	1.64	-.73**		
Physical Neglect	-3.25***	-4.53	-1.97	.65	-.59***		
Emotional Abuse	2.8***	1.15	4.45	.83	.63***		
Emotional Neglect	-.19	-1.31	.93	.57	-.04		
Sexual Abuse	1.66	-.77	4.08	1.23	.36		
Step 3						.39	.05***
(Constant)	93.36***	58.59	128.12	17.58			
Age	.75	-.43	1.93	.60	.09		
Physical Abuse	-9.22***	-13.38	-5.07	2.10	-1.52***		
Physical Neglect	-3.14***	-4.38	-1.91	.63	-.57***		
Emotional Abuse	3.78***	2.10	5.47	.85	.85***		
Emotional Neglect	-.32	-1.41	.75	.55	-.06		
Sexual Abuse	4.57*	1.70	7.45	1.45	.98*		
Self-Regulatory Efficacy	.03**	.02	.06	.01	.32**		
Step 4						.50	.11***
(Constant)	-18.25	-133.46	96.96	58.25			
Age	.41	-.70	1.51	.56	.05		
Physical Abuse	8.47	-2.09	19.03	5.34	1.40		
Physical Neglect	1.80	-2.05	5.65	1.95	.32		
Emotional Abuse	4.01	-.19	8.21	2.12	.90		
Emotional Neglect	.22	-4.54	4.97	2.40	.04		
Sexual Abuse	-11.64**	-19.54	-3.74	3.99	-2.50**		
Self-Regulatory Efficacy	.12***	.08	.15	.02	.99***		
Physical Abuse X SRE	-.06**	-.09	-.02	.02	-2.11**		
Physical Neglect X SRE	-.02**	-.04	-.01	.01	-1.13**		
Emotional Abuse X SRE	-.01	-.02	.01	.01	-.25		
Emotional Neglect X SRE	.00	-.02	.03	.01	.07		
Sexual Abuse X SRE	.06	-.03	.08	.01	3.18		

Note: B=Unstandardized Coefficient; CI=Confidence Interval; UL=Upper Limit, LL=Lower Limit S.E=Standard Error; β =Standardized Coefficient; R²=R square; ΔR^2 =R square change; *p<.05, **p<.01, ***p<.001,

In Figure 3, Simple slope analysis showed the buffering effect of self-regulatory efficacy in the relationship between physical abuse and psychological well-being, indicating people having a higher level of self-regulatory efficacy have better psychological well-being even in the presence of physical abuse. In Figure 4, Simple slope analysis showed the buffering effect of self-regulatory efficacy in the relationship between physical neglect and psychological well-being, indicating people having a higher level of self-regulatory efficacy have better psychological well-being even in the presence of physical neglect.

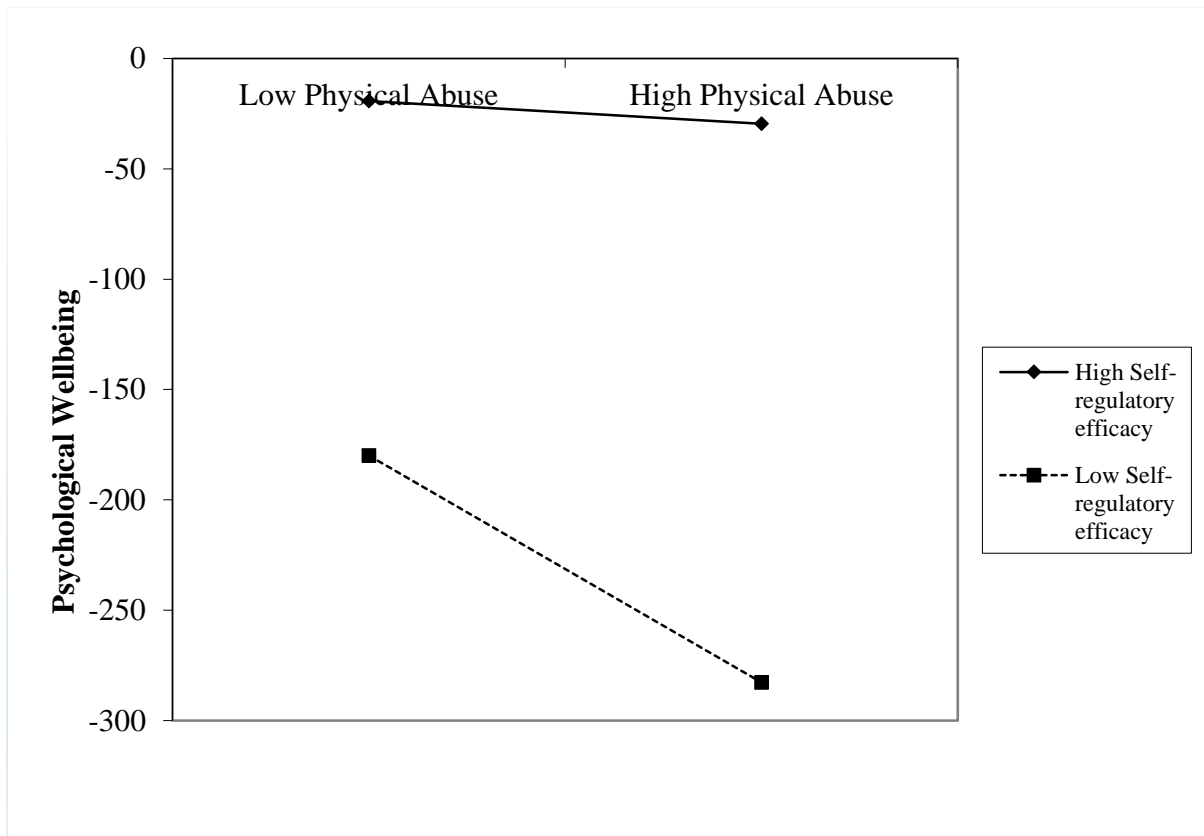


Figure 3
Simple Slope Analysis showing the Moderating Effect of Self-Regulatory Efficacy in the Relationship between Physical Abuse and Psychological Well-being.

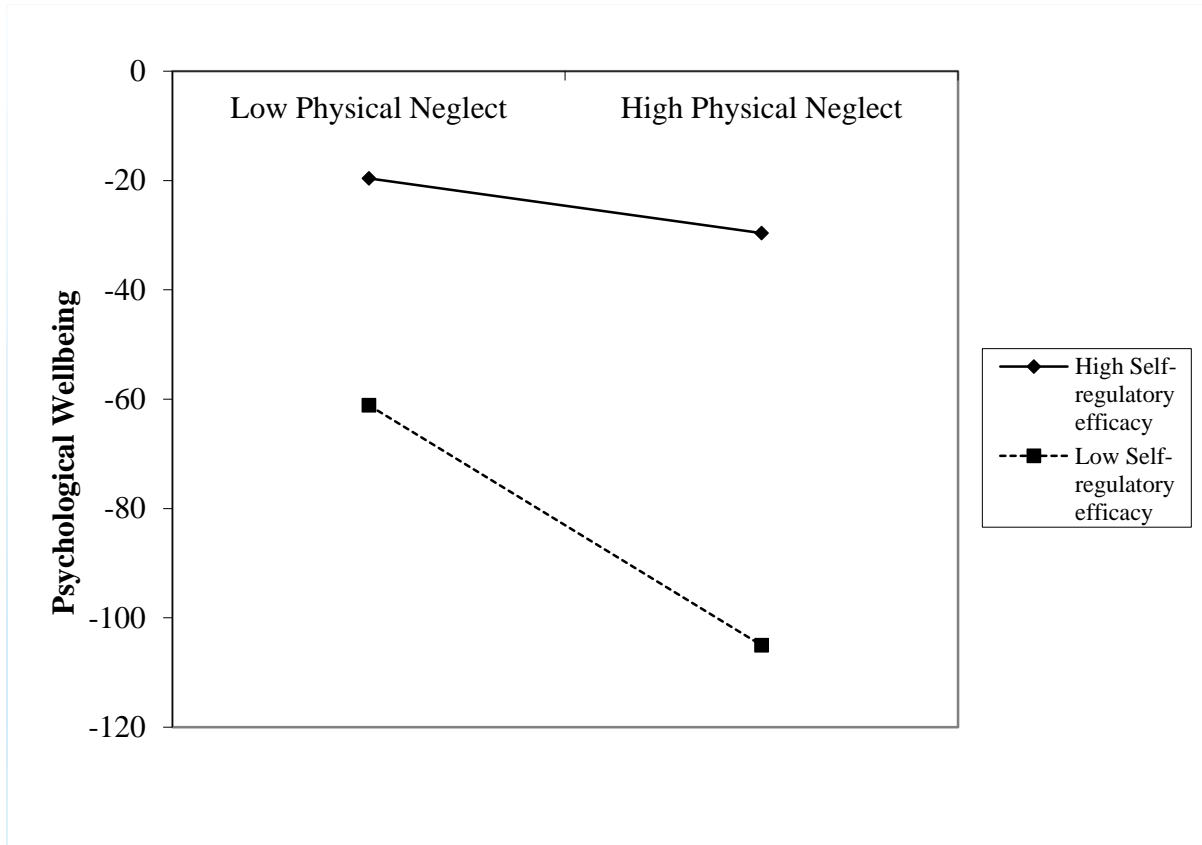


Figure 4
Simple Slope Analysis showing the Moderating Effect of Self-Regulatory Efficacy in the Relationship between Physical Neglect and Psychological Well-being.

DISCUSSION

Young adulthood is a crucial time when major life transformations may give birth to mental health problems (Jurewicz, 2015). Negative early experiences and the ability to regulate oneself are important factors in determining an individual's mental state and criminal behavior. Young offenders are more likely to have mental health issues, negative childhood experiences, and low self-regulatory effectiveness (Rollins & Crandall, 2021). Thus, the purpose of this study was to investigate the connections between negative childhood experiences, psychological well-being, psychological distress, and self-regulatory efficacy.

Results showed that childhood traumas (physical abuse, sexual abuse, physical neglect, emotional neglect) were negatively correlated with psychological well-being, and childhood

traumas negatively predicted psychological well-being. This is because early-life trauma can interfere with normal development and change the way the brain develops, especially in areas like the prefrontal cortex and amygdala that are involved in stress management and emotional processing. These changes may result in increased emotional reactivity and trouble handling stress, which can be detrimental to psychological health. This finding is in line with other research that found a detrimental correlation between childhood trauma and psychological health (Huang et al., 2021). Results also revealed that childhood traumas (physical abuse, physical neglect, emotional neglect, and sexual abuse) were positively correlated with psychological distress and childhood traumas positively predicted psychological distress. This is because childhood trauma can result in the development of symptoms similar to PTSD (Malizia, 2017). These can include avoidance behaviors, hypervigilance, nightmares, and intrusive memories. All of these can lead to psychological suffering (Burri et al., 2013).

Emotional regulation abilities can be disrupted by childhood traumas, which makes it challenging for people to successfully express and manage their emotions. Elevated levels of distress and emotional instability may result from this emotional dysregulation. This finding aligns with another study that found that childhood traumas were positively correlated with psychological distress (Agbaje et al., 2021). Our results revealed a positive association between self-regulatory efficacy and psychological well-being and self-regulatory efficacy positively predicted psychological well-being. This finding indicates that there was greater psychological well-being among individuals with developed self-regulatory efficacy. This is because offenders with greater levels of self-regulatory efficacy are more likely to have acquired useful coping mechanisms that enable them to control stress, regulate emotions, and approach obstacles positively. Having these coping mechanisms can improve psychological health (Zhang et al.,

2022). Higher levels of self-regulatory efficacy in juvenile offenders are probably associated with lower levels of impulsivity (López-Aguilar et al., 2022). They are less likely to act on impulse or engage in dangerous behaviors that could have an adverse effect on their psychological well-being because they can deliberate more and act with more thought. This result is in line with earlier research (Salleh et al., 2021).

We also found that self-regulatory efficacy was negatively correlated with psychological distress and that self-regulatory efficacy negatively predicted psychological distress. It indicates that offenders who were more effective at self-regulation also experienced less psychological anguish. This is a result of the fact that offenders with greater levels of self-regulatory efficacy have stress-reduction techniques that work. Because they are more robust, they can deal with obstacles and challenging circumstances better, and they are also less prone to act impulsively or in a way that could be dangerous, which lessens psychological discomfort. This result is in line with earlier research (Salleh et al., 2021).

The study findings further revealed that self-regulatory efficacy acts as a moderator between childhood traumas (physical abuse, physical neglect, and mental health), psychological well-being, and psychological distress. This is because self-regulatory efficacy has the potential to mitigate the detrimental effects of childhood maltreatment and neglect on mental health. Strong self-regulation may help people deal with the psychological and emotional fallout from traumatic experiences in the past, which may reduce their risk of mental health issues in comparison to people with weak self-regulation. Self-regulatory efficacy affects the coping strategies people use in stressful situations or after negative experiences. Effective self-regulation techniques lessen the possible detrimental consequences on mental health because they increase the likelihood that child victims of abuse and neglect may employ constructive coping

techniques later in life. This result is in line with earlier research that shows the moderating role of self-regulatory competence between childhood traumas and mental health (Cohrdes & Mauz, 2020).

According to our research, people's psychological well-being tends to improve, or psychological discomfort tends to decline with age. This is because as people age, they frequently acquire life experience as well as increased emotional maturity and wisdom (Lane & Smith, 2021). Better coping mechanisms, problem-solving abilities, and a more balanced outlook on life's obstacles can result from this greater wisdom, all of which support enhanced psychological well-being. Furthermore, people often get better at controlling their emotions and managing stress as they get older (Isaacowitz, 2022). They gain useful coping mechanisms for dealing with life's ups and downs, which lessens their emotional suffering and enhances their psychological health. This result is in line with earlier research (Stephoe et al., 2015).

Limitations and Suggestions

The study sample was only taken from two jails and permission was not granted for surveying the jails of Lahore. Due to time shortage, only quantitative data was collected but the addition of qualitative interviews could add more understanding of study variables in the context of young offenders. Confounding variables like the prison environment, continuous stares from police officers, and the fear of being exposed were not controlled in this study. To enable broad generalization of the study's findings, longitudinal research designs should be used in future studies including larger and more representative groups.

CONCLUSION

The current research has enhanced the body of indigenous literature and the significance of early intervention and preventive strategies to address childhood traumas. The findings of this study have also paved the way for a deeper comprehension of the relationship between early life events and subsequent health outcomes, highlighting the need to provide young offenders with safe, nurturing surroundings to foster resilience and lessen the effects of traumatic experiences.

People's self-efficacy can be increased and their chance of engaging in criminal behavior can be decreased by giving them opportunities to experience mastery and success in pro-social activities, such as vocational training and education programs. Young offenders' perceptions of their skills can be reshaped by success in these rehabilitation programs, leading them to choose more constructive and legal avenues in life post-release from prison. Developing successful treatments within the criminal justice system and offering mental health services to young offenders in prison requires an understanding of the high prevalence of mental health concerns. To address the mental health needs of those involved in the criminal justice system and to lower recidivism rates, we recommend diversion programs, mental health courts, crisis intervention teams, and better access to mental health treatment in correctional facilities and communities.

DECLARATION STATEMENTS

Conflict of Interest Statement

There is no conflict of interest to declare.

Funding

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Ethics and permission

Permission was taken from the departmental ethical committee of the Institute of Applied Psychology, University of Punjab, Lahore, and also from the IG of the Prison department. Permission was also taken from participants through informed consent. Participants were assured

that the confidentiality of their responses would be maintained. Participants were also informed that the information gathered would be solely used for research purposes.

Data sharing and availability statement

Data is available from the corresponding author if needed.

Authors contribution statement

This study was conceptualized and carried out (methodology, data collection, data analysis, write-up) by AS and supervised by FM.

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