

Impulsivity, Non-suicidal Self-harm and Psychological Distress among Emerging Adult Offenders Incarcerated in Punjab, Pakistan Prisons

ABSTRACT:

Previous research has exposed that non-suicidal self-harm and impulsivity are linked with psychological distress among incarcerated inmates in prisons. The current study investigated impulsivity, psychological distress and non-suicidal self-harm among emerging adult offenders incarcerated in Punjab, Pakistan prisons. A correlational research based on cross-sectional survey research design was conducted on a sample of N = 150 emerging adults incarcerated in Punjab Prisons in District Jail Faisalabad and Central Jail Gujranwala, Pakistan, via snowball sampling technique. The Impulsive Behavior Short Scale (I–8), DASS-21, and Suicidal Concern for Offenders in the Prison Environment (SCOPE-2) were used for data collection. The results indicated that impulsivity, psychological distress and non-suicidal self-harm have significant correlation. Hierarchical regression analysis revealed that impulsivity was a significant predictor of psychological distress. Impulsive behaviour, non-suicidal self-harm and psychological distress can be attributed to a negative environment inside the prison environment.

KEY WORDS:

Non-suicidal Self-harm, Inmates, Impulsivity, Psychological Distress, Offenders

Introduction

Human survival is ostentatious due to numerous factors, both advantageous and depravatory. From a broader perspective, the human population is subject to be categorized into two clusters. The foremost cluster is those who are free, and the other cluster is the individuals who are behind bars, which are approximately 11.5 in the world and over 83000 in Pakistan (Fair & Walmsley, 2024). Hence, maintaining well-being and conquering the psychological distress among individuals incarcerated in prisons seems the task of utmost effort (Bloem, Bulten, & Verkes, 2019). Therefore, it is quite challenging to comprehend the most fundamental and decisive factors that hamper the psychological distress among inmates (DAchew et al., 2015). While addressing psychological distress, the role of impulsivity cannot be overlooked and relegated as impulsivity fulfils the criterion for voluminous psychological disorders within the DSM-5 TR and ICD (Bakhshani, 2014). It may be understood as a predilection towards hasty, inadvertent responses to stimuli with lessened concern for the undesirable consequences of these performed reactions (Chamorro et al.,

Noreena Kausar ¹

Saima Riaz ²

Talha Aziz ³

Sara Rafique ⁴

¹ Assistant Professor, Department of Psychology, University of Gujrat, Gujrat, Punjab, Pakistan.

Email: noreena.kausar@uog.edu.pk
<https://orcid.org/0000-0002-0406-7056>

² Assistant Professor, Department of Psychology, University of Gujrat, Gujrat, Punjab, Pakistan.

Email: saima.riaz@uog.edu.pk

³ PhD Scholar, Department of Psychology, University of Gujrat, Gujrat, Punjab, Pakistan.

Email: talhaaziz78@gmail.com

⁴ Psychologist, Punjab Prison Department, Pakistan.

Email: sarah.rafique9@gmail.com

Corresponding Author: Noreena Kausar

✉ noreena.kausar@uog.edu.pk

Cite this Article:

Kausar, N., Riaz, S., Aziz, T., & Rafique, S. (2024). Impulsivity, Non-suicidal Self-harm and Psychological Distress among Emerging Adult Offenders Incarcerated in Punjab, Pakistan Prisons. *The Regional Tribune*, 3(1), 246-258.

<https://doi.org/10.63062/trt/V24.034>

2012). Impulsivity is an imperative determining factor of personality differences, associated risk-taking behaviors, and psychological imbalances (Rochat, Billieux, Gagnon, & Van der Linden, 2018). Considering the detrimental impact of impulsivity on human functioning and executive control, its critical impact on prisoners cannot be overlooked, as impulsivity can have substantial and extensive influences, both within the prison setting and on the persons' general life arcs.

Impulsivity can be diligently associated with self-harm, as entities who get problematic in impulse control may be involved in self-destructive conduct without effusively considering the outcomes (Favril et al., 2020). This conduct is stereotypically not envisioned as a suicide effort but somewhat as a coping strategy by a person against emotional pain, overwhelming feelings and stress (Sakellidis et al., 2010). Prison environments, such as overcrowding, limited resources, uncertainty about the future, and the often challenging social environment within the prison can lead to adopting self-harming behaviours and cognitions (Laporte et al., 2017). This proposed research will be aimed at investigating the impulsivity, self-harm and psychological distress in emerging adult offenders incarcerated in Punjab Prisons. In the succeeding segment, the definition of the constructs and theoretical grounds are discussed.

Previous literature sheds light on how psychological distress, impulsivity and non-suicidal self-harm are linked to each other. Carli et al. (2010) reported a high level of impulsive behaviour was linked with more proneness towards suicidal behaviour. Hamza, Willoughby and Heffer (2015) demarcated that Non-suicidal self-harm was linked with a higher level of impulsivity. Hamza & Willoughby (2019), from results of longitudinal research, indicated that impulsivity was linked with higher non-suicidal self-injury, and higher NSSI behaviour predicted greater impulsivity. Cassels et al. (2022) reported that impulsivity significantly predicted NSSI over and above other risk factors. Maxfield and Pepper (2017) indicated that higher impulsivity and lack of perseverance were associated with difficulty in emotion regulation processes. Mwendwa-Karinge et al., (2023) highlighted that females were at a higher risk of engaging in suicidal ideation and suicidal attempts revealing significant gender differences. In addition, higher attentional impulsive trends were present in those who manifested suicidal ideation and attempts than those with no suicidality. Abdullah et al. (2023) highlighted suicidal ideation was significantly positively associated with psychopathology symptoms, total impulsivity and non-planning impulsivity. Regression analysis further demonstrated that psychological distress and non-planning impulsivity were significantly linked with suicidal ideation.

Kayis (2022) examined mindfulness, impulsivity and psychological distress. Findings revealed that mindfulness was negatively linked with psychological distress, whereas psychological distress was positively linked with impulsivity. Kircaburun et al. (2023) manifested that psychological distress along with its components, i.e. depression, anxiety and stress, were significantly positively linked with all dimensions of impulsivity except sensation seeking. Příhodová et al. (2023) explored impulsivity profile in the prison population, and statistical analysis highlighted that a high level of impulsivity was linked with emotion-based rash action, gaining immediate physical pleasures, and social interactions. Komarovskaya et al. (2007) investigated impulsivity, antisocial and violent behaviour, and psychological disorders in female prisoners, and the results highlighted that impulsivity was significantly linked with aggressive and antisocial behaviour as well as personality disorders. Lanciano et al. (2022) indicated prisoners with higher mental abilities, psychopathic impulsivity, personal distress and negative emotionality were generally linked with suffering from psychological pathologies. Martin et al. (2019) revealed that prisoners with antisocial personality disorder have psychopathy linked with premeditated aggression and motor impulsivity. Johnson et al. (2017) highlighted that the pervasive influence of feelings was related to anxiety and depression. Peters et al. (2015) revealed that depression was linked with impulsivity. However, this relationship became non-significant when mood instability was added to the model.

Favrill, Hawton and Fazel (2020) explored the risk factors for self-harm in prisoners, and results indicated that self-harm was commonly found among inmates who had a psychiatric history, along with major depression disorder and borderline personality disorder. Verdolini et al. (2017) revealed that deliberate self-harm was significantly linked with affective disorder, lifetime psychotic disorder and borderline personality disorder. Richmond et al. (2017) reported that psychological distress was directly correlated with non-suicidal self-harm, and this relationship was also mediated by cognitive reappraisal and expressive reappraisal. Gray et al. (2022) reported that participants who stopped self-injuring experienced less psychological distress and less emotional regulation difficulty than participants who had not stopped self-injuring. Li et al. (2022) revealed there was a positive association among suicidal ideation, psychological distress and non-suicidal self-injury. Ganaprakasam et al. (2021) found that psychological distress significantly predicted non-suicidal self-harm. Additionally, significant gender differences were observed among the research participants. Gull and Najam (2021) highlighted that psychological distress was negatively correlated with trait emotional intelligence, quality of life, and self-esteem and was negatively linked with deliberate self-harm. Similarly, Husain et al. (2019) indicated that individuals with self-harm tendencies had higher scores on the Beck depression inventory and Beck Hopelessness Scale.

The literature inaugurates that impulsivity, along with its components (Urgency, Lack of Perseverance, Lack of Premeditation, and Sensation Seeking), non-suicidal self-harm, and psychological distress (depression, anxiety & stress) have significant inter-correlation, particularly in prison settings. Punjab, the largest province of Pakistan in terms of population, have a high crime rate and an over-crowded population in the Prisons of Punjab (Anwer, Nasreen & Shahzadi, 2015). This has become a serious concern for medical and mental health professionals for the physical and psychological health of inmates incarcerated in Punjab prisons (Irfan & Rafique, 2022). It has been observed that negative coping in the form of self-harm originates from psychological distress, and impulsive behaviours can lead to severe psychological ailment if left untreated or unattended. So, to treatise the theoretical fissures in the literature, primarily, the concurrent research was aimed at the investigation of the relationship between impulsivity, Non-suicidal self-harm and psychological distress among emerging adults incarcerated in Punjab Prisons. Secondly, the present research has investigated gender differences among study variables as it is surprisingly not given due attention by the researchers, which is relatable to the problems being faced in approaching the inmate population. It has been anticipated that the findings of this research will have important implications at clinical, subjective and professional levels, enabling practitioners to design interventions that will induce positive coping and reduce self-harming tendencies and psychological distress upon being released from prison and during the sentence period and confinement. Hence, the following hypothesis were tested:

- H1: Impulsivity and self-harm are likely to predict psychological distress in emerging adults incarcerated in Punjab Prison, Pakistan.
- H2: Mean scores across genders are likely to vary on impulsivity, non-suicidal self-harm and psychological distress in emerging adults incarcerated in Punjab Prison, Pakistan.
- H3: Impulsivity, self-harm and psychological distress are likely to vary across genders.

Method

Participants

The sample size for this research was comprised of $N = 150$ emerging adults incarcerated in Punjab Prisons in District Jail Faisalabad and Central Jail Gujranwala. A snowball sampling technique was employed in this research. Participants with a minimum age of 19 years and above according to WHO guidelines for emerging adults, with a history of self-harm, and with a minimum of one year of confinement were included in the study. The sample included equal representation from both genders ($n = 75$ male, $n = 75$ female, each 50%), 40% from joint and 60% from nuclear family structure, 53.3% from urban and 46.7% from rural locality. From the total sample, 56.7% had

a confinement period from 1 to 2 years, while 43.3% had a confinement period above 2 years. Mean education years was 10.29 $SD = 1.27$, age $M = 20.93$, and $SD = 1.85$. The detail is appended in Table 1.

Table 1

Demographic Features of the Sample (n = 150)

Variables	Categories	f/M (SD)	%
Gender	Male	75	50
	Female	75	50
Family Structure	Joint	60	40
	Nuclear	90	60
Residence	Urban	80	53.3
	Rural	70	46.7
Year of Confinement	1-2 Years	85	56.7
	Above 2 Years	65	43.3
Education		10.29(1.27)	
Age		20.93(1.85)	

Procedure

After getting approval for the synopsis and permission to conduct research, a letter from the Chairperson of the Department of Psychology exploring the purpose of the research and requesting permission for data collection was taken. The permission process and the instruments, along with detailed instructions, were handed over to the psychologist appointed at Central Jail Gujranwala and District Jail Faisalabad, Pakistan, for administration purposes on the sample. The researcher ensured the explanation of the nature and purpose of the study. It was ensured that written consent was obtained from those who met the inclusion criteria and were willing to participate. The sample was approached by the snowball technique. The confidentiality of the data was ensured, and the right to withdraw from the research was explained to all study participants. In order to avoid the reliability issue for scales, the scales were arranged in ABC, BCA, CBA, and ACB order.

Instruments

Participants were asked to fill out a demographic sheet for the provision of information that included age as a continuous variable, gender as a discrete variable, and years of confinement as a categorical variable.

The Impulsive Behavior Short Scale – 8 (I-8) was originally developed by Kovaleva et al. (2014) in the German language, which was based on the conceptual framework of Keye et al. (2009) and Schmidt et al. (2008). This scale has 8 items and 4 subscales, with each subscale having two items and 4 reverse score items. Each subscale has two items, and responses are anchored on a five-point Likert Scale, ranging from 1 does not apply at all to 5 applies completely. Depression Anxiety and Stress Scale (DASS) was initially developed by Lovibond & Lovibond (1995) and was 42-items scale. This scale was later transformed into 21-items scale and was validated on the clinical population by Antony et al. (1998) and on a non-clinical sample by Henry & Crawford (2005). This scale has 3 subscales, and each subscale is comprised of 7 items. Responses are anchored on a four-point Likert scale with 0 = did not apply to me at all, to 3 = applied to me very much. Suicide Concerns for Offenders in the Prison Environment (SCOPE-2) was originally developed by Perry and Olason in 2009 to assess the risk of self-harm in young adult male and female offenders. Initially, it was 6-point Likert scale with 27 items and two subscales that

include optimism and protective self-worth. Perry and Horton (2020) again revised this scale into 19-item scales, and the response format was revised to a four-point Likert scale with 1 = strongly agree to 4 = strongly disagree.

Data Analysis

After the data collection process was accomplished, the obtained data were entered into Statistical Product and Services Solution (SPSS-25) 25 to make data compatible for further analysis according to the defined objectives and purposes of this study. Data analysis was accomplished in a few steps. Initially, reliability analysis of all instruments was calculated using Cronbach's alpha, and descriptive statistics were computed. Later, in the second step, Pearson product-moment correlation was estimated to evaluate the relationship between studied variables. In step three, a hierarchical regression analysis was carried out. In the fourth step, gender differences were analyzed in the focal constructs of this research using an independent sample t-test. All significance tests were conducted with a significance level of 5%.

Results

For descriptive analysis and reliability estimates of DASS-21, SCOPE-2, and I-8 in relation to each other, see Table 2. To investigate the relationship between study variables, Pearson product-moment correlation was performed, and all scales and subscales were positively linked to each other except *SCOPE-2* and its subscales, which were negatively linked with other scales and subscales, see Table 3. Hierarchical regression analysis was employed to investigate the impact of impulsivity and non-suicidal self-harm on psychological distress. Impulsivity appeared to be a significant predictor of psychological distress and its subscales depression $F_{\text{change}}(2, 141) = 55.81, p < .001$, anxiety $F_{\text{change}}(2, 141) = 54.97, p < .001$, and stress $F_{\text{change}}(2, 141) = 63.86, p < .001$, while results for non-suicidal self-harm were non-significant, see Table 5. Independent sample t-test was employed to check gender difference, and results indicated that male participants scored significantly higher on impulsivity and all subscales except sensation seeking, which had non-significant mean differences across genders; results for mean difference across genders were non-significant for *SCOPE-2* and all its subscales. Psychological distress (depression, anxiety, & stress) was significantly higher among male inmates as compared to female participants, see Table 4.

Table 2

Psychometric Properties, Cronbach's Alpha Reliability Coefficients of Positive Emotions, Transcendence, and PERMA (n = 150)

Scales	K	M	SD	α	Range		Skewness
					Actual	Potential	
Urgency	2	7.18	2.29	.80	3-10	2-10	-.45
Lack of Premeditation	2	7.37	2.24	.75	2-10	2-10	-.50
Lack of Perseverance	2	7.49	2.17	.60	2-10	2-10	-.54
Sensation Seeking	2	7.35	1.72	.50	3-10	2-10	-.44
Impulsivity	8	29.38	7.04	.86	11-39	8-40	-.41
Optimism	10	26.34	5.34	.75	13-37	10-40	-.55
Protective self-worth	9	23.37	4.35	.66	12-33	9-36	-.19
SCOPE-2	19	49.71	8.84	.82	28-70	19-76	-.42
Depression	7	11.38	4.14	.68	3-19	0-21	-.24
Anxiety	7	11.08	4.40	.75	2-19	0-21	-.20
Stress	7	10.90	4.46	.77	2-19	0-21	-.27
DASS total	21	33.36	11.96	.89	9-55	0-63	-.36

Sk^i = Standard error of skewness = .19

Table 3

Pearson Product Moment correlation among study variables (n = 150)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Urgency	-	.69***	.72***	.52***	.90***	-.15	-.23**	-.20*	.58***	.59***	.64***	.65***
2. Lack of Premeditation		-	.67***	.42***	.85***	-.21**	-.34***	-.29***	.59***	.60***	.59***	.65***
3. Lack of Perseverance			-	.43***	.86***	-.18*	-.28***	-.25**	.64***	.61***	.62***	.68***
4. Sensation Seeking				-	.68***	-.17*	-.15	-.18*	.43***	.40***	.44***	.46***
5. Impulsivity					-	-.21**	-.31***	-.28***	.68***	.67***	.70***	.74***
6. Optimism						-	.66***	.92***	-.19*	-.25**	-.28***	-.27***
7. Protective self-worth							-	.89***	-.25**	-.24**	-.27**	-.28**
8. SCOPE-2								-	-.24**	-.27**	-.30***	-.29***
9. Depression									-	.75***	.77***	.92***
10. Anxiety										-	.78***	.92***
11. Stress											-	.93***
12. DASS total												-

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

Table 3 demonstrates the Pearson correlation between subscales and scales used in this research. Results have indicated that excluding the relationship of optimism with urgency and sensation seeking with protective self-worth rest, all scales and subscales of all variables were significantly correlated to each other.

Table 4

Gender Comparison among Study Variables of Current Research (n = 150)

Variables	Male (n = 75)		Female (n = 75)		t(148)	95% CI	Cohen's d
	M	SD	M	SD			
Urgency	7.85	1.96	6.51	2.41	3.75***	.63-2.05	.61
Lack of Premeditation	8.11	1.93	6.63	2.30	4.27***	-.79-2.16	.69
Lacking Perseverance	7.88	2.05	7.11	2.24	2.20*	.08-1.46	.35
Sensation Seeking	7.41	1.62	7.28	1.82	.47	-.42-.69	.07
Impulsivity total	31.25	6.16	27.52	7.40	3.35**	1.53-5.93	.54
Optimism	26.07	5.30	26.61	5.39	-.63	-2.27-1.18	.10
Protective Self-worth	23.20	4.08	23.53	4.61	-.47	-1.74-1.07	.07
SCOPE-2	49.27	8.32	50.15	9.36	-.61	-3.73-1.97	.09
Depression	12.45	3.61	10.31	4.36	3.28**	.85-3.44	.53
Anxiety	12.28	3.62	9.88	4.79	3.45**	1.02-3.77	.56
Stress	11.84	3.77	9.96	4.90	2.63**	.47-3.29	.43
DASS Total	36.57	9.45	30.15	13.33	3.41**	2.69-10.15	.55

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

Table 4 shows the mean, standard deviations, and t values for male and female participants on focal constructs of the study. Levene's test for equality of variances revealed a non-significant F value for constructs of this study; therefore, it was assumed that sample variance and population variances are the same in this study. Results have

indicated that excluding sensation seeking, optimism, protective self-worth and SCOPE-2, on the rest of the variables, male participants scored significantly higher than female participants.

Table 5

Summary of Hierarchical Regression Analysis for Variables Predicting Psychological Distress (n = 150)

Variable	Depression		Anxiety		Stress		DASS	
	ΔR^2	<i>B</i>	ΔR^2	<i>B</i>	ΔR^2	<i>B</i>	ΔR^2	<i>B</i>
Step 1	.07		.06		.09		.08	
		.08		.06		.15		.11
		-.22		.14		.19		.20
		-.19		-.11		-.19		-.18
		-.04		.14		.04		.05
		.19		.10		.21*		.18
Years of Confinement		.01		-.08		-.11		-.06
Step 2	.41***		.41***		.43***		.49***	
Impulsivity		.64***		.63***		.64***		.69***
SCOPE-2		-.05		-.08		-.11		-.09
Total <i>R</i> ²	.48***		.47***		.50***		.57***	

Note. ****p* < .001. ***p* < .01. **p* < .05; *B* = Standardized coefficient; ΔR^2 = *R*² square change.

Overall model 2 explained 41% variance in Depression *F*_{change} (2, 141) = 55.81, *p* < .001, similarly 41% variance in Anxiety *F*_{change} (2, 141) = 54.97, *p* < .001, as well as 43% variance in Stress *F*_{change} (2, 141) = 63.86, *p* < .001, and finally 49% variance in DASS *F*_{change} (2, 141) = 81.69, *p* < .001. Findings revealed that after controlling for demographic variables, impulsivity significantly positively predicted depression, anxiety and stress, as well as DASS in general.

Discussion

This under-task research was intended to investigate impulsivity, self-harm and psychological distress among emerging adults incarcerated in Punjab Prisons, Pakistan. The prison population is at higher risk of developing negative emotions and negative behavioural patterns, which are relatable to a variety of factors. There are a variety of reasons behind these alarming situations, which range from administrator, infrastructural, inadequate legal representation and other crimes inside the jail environment that include sexual, substance and physical abuse. Against the impact of all these negative stressors, the coping strategies being implemented and exercised by inmates are also destructive. It is much more imperative to note that lecturing on these challenges requires a multi-faceted methodology comprising government agencies, legal authorities, other stakeholders, and non-governmental organizations. Moreover, the specific challenges faced by the inmates inside the prison system may vary, and obtaining up-to-date statistics from Indigenous sources or relevant authorities is the need of the hour to address the several physical and mental health issues.

Regardless of the previous debate, either prison environment may be studied to improve the available resources and to uphold the living conditions; the current study was intended to investigate the psychological distress, impulsivity and non-suicidal self-harm among emerging adults incarcerated in Punjab prisons in Pakistan. Keeping the previous in consideration, initially, it was hypothesized that impulsivity, self-harm and psychological distress would have a positive association with each other. This first hypothesis was supported by the findings highlighted by the Pearson correlation. It was observed that impulsivity along with its subscales (urgency, lack of premeditation, lacking perseverance, and sensation seeking) was positively linked with psychological distress and its subscales (depression, anxiety & stress).

Findings are not surprising to understand as the negative environment inside prisons cultivates negative thought patterns and immediate gratification, which resultantly hampers the negative side of psychological health and the chances of developing psychological distress and psychological abnormality. Findings were in line with previous literature, as Risi et al. (2019) found that psychological distress was linked with impulsivity and alcohol misuse. Maccombs-Hunter and Bhat (2022) manifested that depression, anxiety, and impulsivity but not stress were linked with problematic alcohol use.

It is significant to note that impulsivity itself is not fundamentally pathological, and a small level of impulsivity is usual in human behaviour. Nevertheless, when impulsivity converts into an excessive level or chronic and restricts daily functioning, then it may subsidize psychological distress and can authorize the requirement of professional intervention and support. Later findings from Pearson correlation also highlighted that among incarcerated emerging adults, a low score on suicide concern for offenders (optimism & protective self-worth) was linked with higher impulsivity and higher scores on all dimensions of psychological distress. It is essential to note that both impulsivity and optimism are multifaceted constructs influenced by numerous factors. This includes individual differences, environmental factors, and life experiences.

All of these components are matters of concern for mental health specialists as the prison environment is discouraging with respect to positive functioning, and it paves the way for the adoption of negative patterns. While there is a general association between impulsivity and low optimism, not everyone who is impulsive will necessarily have low optimism, and vice versa. Despite all of these factors and discussion, the previous literature supports these results. Cid et al. (2021), in their study, revealed that experiencing harsh prison conditions makes inmates more pessimistic. Heigel et al. (2010) found that imprisonment was linked with declined patterns of optimism, and low optimism is linked with more development of psychological abnormality. Jahanara (2017) also reported that optimism was negatively linked with psychological distress, whereas it was positively linked with psychological well-being.

The other mode of discussion is also imperative and quite interesting. Results indicated that optimism was negatively linked with impulsivity. There might be a link between optimism and impulsivity, with few studies indicating that optimistic individuals tend to be less impulsive (Wang, Cui, Stolarz-Fantino, Fantino & Liu, 2022). Optimism is generally characterized by a positive outlook on the future, a belief in one's ability to overcome challenges, and a focus on positive aspects of situations. On the other hand, impulsivity refers to the propensity to act on immediate desires or urges without considering the potential consequences. Therefore, a logical inference can be drawn that individuals with a more pessimistic outlook may exhibit higher levels of impulsivity, and this justification is also supported by a number of researchers who found that low optimism and high pessimism are linked with high chances of getting involved in risk-taking impulsive behaviours. Conversely, it's critical to concentrate on the fact that human behaviour is a complex construct, and differences across individuals play a vital role. It is not necessary that every pessimist will inevitably be more impulsive. This discussion was supported by the findings of Pietruska and Armony (2013). They found a relation between trait anger and outcome expectations of future life events but suggest that this optimism does not necessarily translate into actual risk-seeking behaviour.

The other part of the findings revealed that protective self-worth was negatively linked with impulsiveness and psychological distress. These outcomes were supported by previous findings as Choi and Kim (2021) in their study reported that among females, a high level of impulsiveness was linked with a low level of self-esteem, and for male participants, higher impulsivity was linked with irrational gambling. In another research, similar investigations were examined by Kesebir, Gungordu & Caliskan (2014). They found a negative connection between impulsiveness and self-esteem. Furthermore, impulsiveness was also linked with depressive and anxious temperaments.

A low self-worth may diminish a person's quality of life and mental health in various ways. This includes 'negative feelings', which refer to self-criticism, which can clue to obstinate feelings of despondency, depression,

anxiety or guilt (Mengesha, Bedaso, Berhanu, Yesuf & Duko, [2023](#)). It is pertinent to understand that increased self-worth and optimal self-esteem can be protective factors against negative life events and other internal negative states.

Alternatively, an individual with low self-worth and low self-efficacy may feel angry and bully other people, and the fact cannot be denied that the prison setting itself is a negative factor in inducing negativity in inmates. Such an explanation was also reported by Bruce & Larweh ([2017](#)), who revealed that a significant positive correlation exists between self-esteem, needs satisfaction and psychological well-being among inmates. On the other hand, it was also observed that the length of prison sentence also had no effect on prisoners' psychological health. These findings were also confirmatory evidence, which was in line with the findings of this research. The impact of the length of prison on study variables was non-significant.

It was also hypothesized that psychological distress will be significantly predicted by impulsivity and self-harm. Results indicated that these findings were also significant as both independent variables explained significant variance in psychological distress. In a prison setting, the impulsivity in terms of state creates an effect of immediate but temporary relief. On the other hand an impulsive individual has underlying psychological causes that can further hamper psychologically distressing components e.g. depression and anxiety. This logical inference was based on the findings of Lanciano, de Leonardis, and Curci ([2022](#)). They conducted research on $N = 93$ inmates. Results of their investigation revealed that inmate participants with higher cognitive abilities, psychopathic impulsivity, proactive aggression, personal distress, anxiety and negative emotionality were mainly prone to ill-being or psychologically distressing outcomes. Inversely, the fearless dominance trait, positive emotional approach and empathic ability were linked with positive psychological outcomes among inmates.

Expanding discussion towards self-harm and psychological distress, it is a common perception among practitioners and mental health specialists that behind every self-harm, there is an underlying psychological cause. The attempt of self-harm can be attention seeking, or it can be unintentional and being operated through unconsciousness. It has also been the centre of focus and area of interest of researchers. This risk of getting engaged in self-harming tendencies and psychological distress is higher in prisoners.

Research by Reiter et al. ([2020](#)) supported this hypothesis. They concluded from a sample of $N = 80$ incarcerated individuals that clinically significant symptoms of depression, anxiety, or guilt were present among half of our research sample. Furthermore, disproportionately high rates of serious mental illness and self-harming behaviour were present among the inmate prison population. In another similar investigation by Saeed, Irfan & Nawab (2021), it was reported that quality of life was negatively linked with psychological distress, whereas a positive association was found between self-esteem and quality of life. Shaheen ([2015](#)) also reported that optimism and self-esteem were negatively linked with psychological distress.

To conclude, the current research was conducted to explore self-harm, psychological distress and impulsivity among emerging adults incarcerated in Punjab Prisons, Pakistan. The research has also examined the predictive role of impulsivity and non-suicidal self-harm in psychological distress. Impulsivity, along with its components, was significantly positively linked with psychological distress. Furthermore, psychological distress, along with its subscales, was negatively linked with optimism and protective self-worth. Due to the least diversity of duration of confinement, its impact was non-significant on study variables. Indeed, the negative prison environment can create the catalytic factor for negative psychological development, which, as a result, can cause psychological distress in the inmate population, particularly in emerging adults as they are passing from the emotionally unstable phase of their life.

References

- Abdullah, M., Khalily, M. T., Ruocco, A. C., & Hallahan, B. (2023). Impulsivity, suicidal thoughts, psychological distress, and religiosity in adolescents and young adults. *Frontiers in Psychiatry*, 14. <https://doi.org/10.3389/fpsy.2023.1137651>
- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment*, 10(2), 176–181. <https://doi.org/10.1037//1040-3590.10.2.176>
- Anwer, M., Nasreen, S., & Shahzadi, A. (2015). Social and demographic determinants of crime in Pakistan: A panel data analysis of province Punjab. *International Journal of Economics*, 3, 440-447.
- Bakhshani, N.-M. (2014). Impulsivity: A predisposition toward risky behaviors. *International Journal of High Risk Behaviors and Addiction*, 3(2). <https://doi.org/10.5812/ijhrba.20428>
- Bloem, O., Bulten, E., & Verkes, R. (2019). Changes in subjective wellbeing of prisoners on remand. *International Journal of Prisoner Health*, 15(2), 181-191. <https://doi.org/10.1108/ijph-01-2018-0003>
- Bruce, D., & Larweh, E. (2017). Self-esteem, Needs satisfaction and Psychological well-being of Inmates at James Camp Prison in Ghana. *Journal of Advocacy, Research and Education*, (4), 112-117. https://www.kadint.net/journals_n/1509821087.pdf
- Carli, V., Jovanović, N., Podlešek, A., Roy, A., Rihmer, Z., Maggi, S., Marusic, D., Cesaro, C., Marusic, A., & Sarchiapone, M. (2010). The role of impulsivity in self-mutilators, suicide ideators and suicide attempters — A study of 1265 male incarcerated individuals. *Journal of Affective Disorders*, 123(1-3), 116-122. <https://doi.org/10.1016/j.jad.2010.02.119>
- Cassels, M., Neufeld, S., van Harmelen, A., Goodyer, I., & Wilkinson, P. (2020). Prospective pathways from impulsivity to non-suicidal self-injury among youth. *Archives of Suicide Research*, 26(2), 534-547. <https://doi.org/10.1080/13811118.2020.1811180>
- Chamorro, J., Bernardi, S., Potenza, M. N., Grant, J. E., Marsh, R., Wang, S., & Blanco, C. (2012). Impulsivity in the general population: A national study. *Journal of Psychiatric Research*, 46(8), 994-1001. <https://doi.org/10.1016/j.jpsychires.2012.04.023>
- Choi, J., & Kim, K. (2021). The relationship between impulsiveness, self-esteem, irrational gambling belief and problem gambling moderating effects of gender. *International Journal of Environmental Research and Public Health*, 18(10), 5180. <https://doi.org/10.3390/ijerph18105180>
- Cid, J., Pedrosa, A., Ibáñez, A., & Martí, J. (2020). Does the experience of imprisonment affect optimism about reentry? *The Prison Journal*, 101(1), 80-101. <https://doi.org/10.1177/0032885520978476>
- Dachew, B. A., Fekadu, A., Kisi, T., Yigzaw, N., & Bisetegn, T. A. (2015). Psychological distress and associated factors among prisoners in north west Ethiopia: Cross-sectional study. *International Journal of Mental Health Systems*, 9(1), 1-6. <https://doi.org/10.1186/s13033-015-0033-7>
- Fair, H., & Walmsley, R. (2024). *World prison population list*. ICPR.
- Favril, L., Yu, R., Hawton, K., & Fazel, S. (2020). Risk factors for self-harm in prison: A systematic review and meta-analysis. *The Lancet Psychiatry*, 7(8), 682-691. [https://doi.org/10.1016/s2215-0366\(20\)30190-5](https://doi.org/10.1016/s2215-0366(20)30190-5)
- Ganaprakasam, C., Humayra, S., Nachiappan, S., Karunaharan, S., & Basir, A. (2021). Psychological distress as a predictor of non-suicidal self injury among adolescents. *Turkish J Physiother Rehabil*, 32, 25140-25155.
- Gray, N., Hasking, P., & Boyes, M. (2022). Cognitive and emotional factors associated with the desire to cease non-suicidal self-injury. *Journal of Clinical Psychology*, 78(9), 1896-1911. <https://doi.org/10.1002/jclp.23336>
- Gull, A., & Najam, N. (2021). Psychosocial predictors of suicidal and non-suicidal self-harm: A mediation analysis. *Pakistan Journal of Social and Clinical Psychology*, 19(2), 41-48.

<https://www.gcu.edu.pk/pages/gcupress/pjscp/volumes/2021-2/5-Psychosocial-Predictors-of-Suicidal-and-Non-Suicidal.pdf>

- Hamza, C. A., & Willoughby, T. (2019). Impulsivity and nonsuicidal self-injury: A longitudinal examination among emerging adults. *Journal of Adolescence*, 75(1), 37-46. <https://doi.org/10.1016/j.adolescence.2019.07.003>
- Hamza, C. A., Willoughby, T., & Heffer, T. (2015). Impulsivity and nonsuicidal self-injury: A review and meta-analysis. *Clinical Psychology Review*, 38, 13-24. <https://doi.org/10.1016/j.cpr.2015.02.010>
- Heigel, C. P., Stuewig, J., & Tangney, J. P. (2010). Self-reported physical health of inmates: Impact of incarceration and relation to optimism. *Journal of Correctional Health Care*, 16(2), 106-116. <https://doi.org/10.1177/1078345809356523>
- Henry, J. D., & Crawford, J. R. (2005). The short-form version of the depression anxiety stress scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 44(2), 227-239. <https://doi.org/10.1348/014466505x29657>
- Husain, M. O., Umer, M., Taylor, P., Chaudhry, N., Kiran, T., Ansari, S., Chaudhry, I. B., & Husain, N. (2019). Demographic and psychosocial characteristics of self-harm: The Pakistan perspective. *Psychiatry Research*, 279, 201-206. <https://doi.org/10.1016/j.psychres.2019.02.070>
- Irfan, A., & Rafique, D. R. (2022). Mental health and Criminological profile of juvenile recidivists: An Indigenous exploration of juvenile recidivism in Punjab prisons. *Journal of Professional & Applied Psychology*, 3(2), 230-240. <https://doi.org/10.52053/jpap.v3i2.107>
- Jahanara, M. (2017). Optimism, hope and mental health: Optimism, hope, psychological well-being and psychological distress among students, University of Pune, India. *International Journal of Psychological and Behavioral Sciences*, 11(8), 452-455.
- Johnson, S. L., Tharp, J. A., Peckham, A. D., Carver, C. S., & Haase, C. M. (2017). A path model of different forms of impulsivity with externalizing and internalizing psychopathology: Towards greater specificity. *British Journal of Clinical Psychology*, 56(3), 235-252. <https://doi.org/10.1111/bjc.12135>
- KAYİŞ, A. R. (2022). Mindfulness, impulsivity and psychological distress: The mediation role of smartphone addiction. *British Journal of Guidance & Counselling*, 50(5), 791-804. <https://doi.org/10.1080/03069885.2022.2046255>
- Kesebir, S., Gungordu, O., & Caliskan, M. (2014). İki uçlu olgularda dürtüsellik, benlik saygısı ve mizaç ilişkisi: Cinsiyete göre farklılaşır mı? *Dusunen Adam: The Journal of Psychiatry and Neurological Sciences*, 27(2), 126-131. <https://doi.org/10.5350/dajpn2014270204>
- Keye, D., Wilhelm, O., & Oberauer, K. (2009). Structure and correlates of the German version of the brief UPPS impulsive behavior scales. *European Journal of Psychological Assessment*, 25(3), 175-185. <https://doi.org/10.1027/1015-5759.25.3.175>
- Kircaburun, K., Harris, A., Calado, F., & Griffiths, M. D. (2024). Emotion regulation difficulties and problematic mukbang watching: The mediating role of psychological distress and impulsivity. *Psychiatry Research Communications*, 4(1), 100152. <https://doi.org/10.1016/j.psycom.2023.100152>
- Komarovskaya, I., Loper, A. B., & Warren, J. (2007). The role of impulsivity in antisocial and violent behavior and personality disorders among incarcerated women. *Criminal Justice and Behavior*, 34(11), 1499-1515. <https://doi.org/10.1177/0093854807306354>
- Kovaleva, A., Beierlein, C., Kemper, C. J., & Rammstedt, B. (2014). Die Skala Impulsives-Verhalten-8 (I-8). In *Zusammenstellung sozialwissenschaftlicher Items und Skalen* (Vol. 10).
- Lanciano, T., De Leonardis, L., & Curci, A. (2022). The psychological effects of imprisonment: The role of cognitive, psychopathic and affective traits. *Europe's Journal of Psychology*, 18(3), 262-278. <https://doi.org/10.5964/ejop.3995>

- Laporte, N., Ozolins, A., Westling, S., Westrin, Å., Billstedt, E., Hofvander, B., & Wallinius, M. (2017). Deliberate self-harm behavior among young violent offenders. *PLOS ONE*, 12(8), e0182258. <https://doi.org/10.1371/journal.pone.0182258>
- Li, R., Wang, Y., Huo, L., Lu, S., Hao, J., Li, P., Zhu, F., He, K., Zheng, T., Su, L., & Zhou, Y. (2022). Mediating effects of suicidal ideation in the relationship between psychological distress and non-suicidal self-injury among adolescents with major depressive disorder: The roles of sex and urban-rural status. <https://doi.org/10.21203/rs.3.rs-1852442/v2>
- Lovibond, P., & Lovibond, S. (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335-343. [https://doi.org/10.1016/0005-7967\(94\)00075-u](https://doi.org/10.1016/0005-7967(94)00075-u)
- Maccombs-Hunter, S., & Bhat, C. S. (2022). Exploring psychological distress and impulsivity as predictors of undergraduate problematic alcohol use. *Journal of Addictions & Offender Counseling*, 43(2), 111-124. <https://doi.org/10.1002/jaoc.12111>
- Martin, S., Zabala, C., Del-Monte, J., Graziani, P., Aizpurua, E., Barry, T. J., & Ricarte, J. (2019). Examining the relationships between impulsivity, aggression, and recidivism for prisoners with antisocial personality disorder. *Aggression and Violent Behavior*, 49, 101314. <https://doi.org/10.1016/j.avb.2019.07.009>
- Maxfield, B. L., & Pepper, C. M. (2017). Impulsivity and response latency in non-suicidal self-injury: The role of negative urgency in emotion regulation. *Psychiatric Quarterly*, 89(2), 417-426. <https://doi.org/10.1007/s11126-017-9544-5>
- Mengesha, T., Bedaso, A., Berhanu, E., Yesuf, A., & Duko, B. (2023). Prevalence and correlates of depressive symptoms among prisoners in Kaliti federal prison in Ethiopia: A facility based cross-sectional study. *BMJ Open*, 13(1), e061547. <https://doi.org/10.1136/bmjopen-2022-061547>
- Mwendwa-Karinge, C., Muehlenkamp, J., Matthews, D., & Mucherah, W. (2023). The role of trait impulsivity on suicidality in the emerging adult in Kenya. *Emerging Adulthood*, 11(4), 884-892. <https://doi.org/10.1177/21676968231168923>
- Perry, A. E., & Horton, M. (2020). Assessing vulnerability to risk of suicide and self-harm in prisoners: A Rasch analysis of the suicide concerns for offenders in the prison environment (SCOPE-2). *BMC Psychiatry*, 20(1). <https://doi.org/10.1186/s12888-020-02569-1>
- Perry, A. E., & Olason, D. T. (2008). A new psychometric instrument assessing vulnerability to risk of suicide and self-harm behaviour in offenders. *International Journal of Offender Therapy and Comparative Criminology*, 53(4), 385-400. <https://doi.org/10.1177/0306624x08319418>
- Peters, E. M., Balbuena, L., Baetz, M., Marwaha, S., & Bowen, R. (2015). Mood instability underlies the relationship between impulsivity and internalizing psychopathology. *Medical Hypotheses*, 85(4), 447-451. <https://doi.org/10.1016/j.mehy.2015.06.026>
- Pietruska, K., & Armony, J. L. (2013). Differential effects of trait anger on optimism and risk behaviour. *Cognition & Emotion*, 27(2), 318-325. <https://doi.org/10.1080/02699931.2012.703130>
- Příhodová, K., Fazio, R., Kázmér, L., Příhodová, T., Lawyer, S. R., Rasmussen, E. B., & Vevera, J. (2023). Impulsivity profile in the prison population – a comparative case-control study. *Journal of Forensic Psychology Research and Practice*, 24(5), 856-873. <https://doi.org/10.1080/24732850.2023.2290001>
- Reiter, K., Ventura, J., Lovell, D., Augustine, D., Barragan, M., Blair, T., Chesnut, K., Dashtgard, P., Gonzalez, G., Pifer, N., & Strong, J. (2020). Psychological distress in solitary confinement: Symptoms, severity, and prevalence in the United States, 2017–2018. *American Journal of Public Health*, 110(S1), S56-S62. <https://doi.org/10.2105/ajph.2019.305375>

- Richmond, S., Hasking, P., & Meaney, R. (2015). Psychological distress and non-suicidal self-injury: The mediating roles of rumination, cognitive reappraisal, and expressive suppression. *Archives of Suicide Research*, 21(1), 62-72. <https://doi.org/10.1080/13811118.2015.1008160>
- Risi, M. M., Forkus, S. R., Roy, A., Laforge, R. G., Rossi, J. S., & Weiss, N. H. (2019). The mediating role of impulsivity between psychological distress and alcohol misuse among college students at a historically Black University. *Journal of Dual Diagnosis*, 15(2), 95-104. <https://doi.org/10.1080/15504263.2019.1583398>
- Rochat, L., Billieux, J., Gagnon, J., & Van der Linden, M. (2018). A multifactorial and integrative approach to impulsivity in neuropsychology: Insights from the UPPS model of impulsivity. *Journal of Clinical and Experimental Neuropsychology*, 40(1), 45-61. <https://doi.org/10.1080/13803395.2017.1313393>
- Saeed, W., Irfan, S., Nawab, S., & Amtullah. (2021). Quality of life as a predictor of psychological distress and self esteem among prisoners. *Journal of Business and Social Review in Emerging Economies*, 7(3), 751-760. <https://doi.org/10.26710/jbsee.v7i3.1919>
- Sakellidis, E., Papadodima, S., Sergeantanis, T., Giotakos, O., & Spiliopoulou, C. (2010). Self-injurious behavior among Greek male prisoners: Prevalence and risk factors. *European Psychiatry*, 25(3), 151-158. <https://doi.org/10.1016/j.eurpsy.2009.07.014>
- Schmidt, R. E., Gay, P., D'Acremont, M., & Van der Linden, M. (2008). A German adaptation of the UPPS impulsive behavior scale: Psychometric properties and factor structure. *Swiss Journal of Psychology*, 67(2), 107-112. <https://doi.org/10.1024/1421-0185.67.2.107>
- Shaheen, F. (2015). Study of Optimism and Self Esteem in Relation to Psychological Distress Among Professional and Nonprofessional Students. *International Journal of Education and Psychological Research (IJEPR)*, 4(1), 65-68.
- Verdolini, N., Murru, A., Attademo, L., Garinella, R., Pacchiarotti, I., Bonnin, C. D., Samalin, L., Pauselli, L., Piselli, M., Tamantini, A., Quartesan, R., Carvalho, A., Vieta, E., & Tortorella, A. (2017). The aggressor at the mirror: Psychiatric correlates of deliberate self-harm in male prison inmates. *European Psychiatry*, 44, 153-160. <https://doi.org/10.1016/j.eurpsy.2017.04.002>
- Wang, J., Cui, R., Stolarz-Fantino, S., Fantino, E., & Liu, X. (2022). Differences in mood, optimism, and risk-taking behavior between American and Chinese college students. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.781609>