

# A Comparative Study Of Anxiety, Depression, Hope, And Psychological Well-Being Among Undertrial And Convicted Female Offenders

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## Abstract

*This research investigates anxiety, depression, hope, and psychological well-being among Indian female undertrials and convicts. Using a quantitative, cross-sectional approach, females from three prisons were assessed using standardized psychological tools. Anxiety, defined as a state of heightened nervousness and worry, was higher among undertrials, possibly due to legal uncertainty and lack of closure. Interestingly, undertrials also portrayed a greater sense of hope, which is conceptualized as an orienting sense of possibility and drive towards accomplishing goals, despite present adversity. Depression, characterized by ongoing sadness and loss of interest or pleasure, was negatively correlated with both hope and psychological well-being, a multifaceted construct that includes self-acceptance, autonomy, purpose in life, personal growth, relations with others, and environmental mastery. Anxiety and depression were highly correlated, reinstating their comorbidity. Hope was positively correlated with autonomy and personal growth. The study underscores the psychological intricacies of prison life and demands interventions in the prison system to be gender-sensitive and trauma-informed.*

**Keywords:** female offenders, undertrial, convicted, anxiety, psychological well-being

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## INTRODUCTION

Incarceration, a punitive measure rooted in the justice systems worldwide, has profound and often irreversible psychological effects on those it confines. In carceral environments, mental well-being declines not merely as a consequence of criminal behaviour but as a product of institutional failure, systemic neglect, harsh institutional conditions, and loss of liberty. Among those who are incarcerated, women, especially in India, form and represent a vulnerable subgroup, often bearing a double burden: the pre-existing trauma and the constant stress of confinement.

This research study examines four major psychological constructs: anxiety, depression, hope, and psychological well-being among undertrial and convicted female offenders. The distinction between undertrial and convicted prisoners is not merely procedural but psychological. Undertrials, awaiting the outcomes of lengthy and uncertain legal proceedings, are frequently subjected to increased distress by the ambiguity of their destiny. On the other hand, convicted prisoners, though sentenced, undergo a kind of psychological stabilization following the initial judgment shock. Hence, the differentiation between these two groups becomes essential in explaining the differential mental health trajectories. Yet, the existing psychological research tends to fail to separate these two populations from each other, thereby erasing important differences that might be used to make more targeted and efficient mental health interventions.

The psychological implications of imprisonment have been well-documented, particularly in the spheres of anxiety and depression. In India, Channabasavanna et al. (1979) carried out groundbreaking research work in Bangalore Central Jail and reported that the detainees scored significantly higher on the Hamilton Anxiety Rating Scale compared with the general population. This disparity highlights the influence of prison-related stressors, per se, legal ambiguity and uncertainty, loss of autonomy, and social stigma on mental health. Anxiety is further exacerbated among female inmates by gender-specific vulnerabilities. Research, including that of Bloom & Covington (2008), emphasizes the ways in which traumatic histories, substance use, and caregiving responsibilities increase a woman's susceptibility to anxiety.

Likewise, Joshi et al. (2014) reported that 82% of women prisoners qualified on DSM-IV-TR for psychiatric disorders, many based on unresolved trauma and domestic violence.

Comparative research studies reveal that female prisoners mostly exhibit higher levels of anxiety and depression in comparison to their male counterparts (Maruschak et al., 2021; Raha et al., 2018). Additionally, qualitative research has given insight into the everyday life of mental illness behind prison bars. Harner and Riley (2013), for example, record the psychological fluctuation of the imprisoned women, with some of them deteriorating mentally while others paradoxically become more stable, indicating the impact of coping mechanisms and

support systems. Depression is particularly endemic to prisons, fueled by isolation, shame, and disrupted familial bonds. Boothby and Durham (1999) reported that nearly one in five female prisoners in their sample suffered from moderate-to-severe depression, with Fedock (2017) situating these observations within the paradigms of deprivation and importation theories, highlighting how psychological deterioration is precipitated both by the prison environment and the pre-incarceration trauma.

But amid despair, hope emerges as a quiet yet powerful counterforce. Hope has been discovered to act as a buffer against psychological deterioration caused by incarceration, fostering resilience and facilitating rehabilitation (Davis, 2005; Mak et al., 2021). While some researchers, such as Pandya (2016), acknowledge spiritual practices as catalysts for hope among Indian female inmates, others, such as Jagadish (2021), reveal that hope levels between both undertrial and convicted inmates remain moderate and relatively stable, indicating an external locus of control and systemic despair as obstacles. Nonetheless, research by Parenti et al. (2023) highlights hope's transformative function in rehabilitation and reintegration, situating it as a key variable to any comprehensive and holistic explanation of mental health among imprisoned women.

The concept of psychological well-being includes more than the absence of illness; it encompasses positive factors such as autonomy, personal growth, and purpose in life. In terms of prison, psychological well-being is often eroded by dehumanizing conditions. Slotboom et al. (2011) and Mefoh et al. (2016) show how factors such as staff hostility, overcrowding, and social isolation have a destructive influence on mental health, especially among women, who are disproportionately affected. The gender-insensitive prison infrastructure, varying from poor menstrual hygiene to the absence of female staff, further jeopardizes women's health and well-being (Hassan et al., 2023). Intersectional identities escalate these effects: undertrial uncertainty is compounded for mothers in prison, trauma survivors, or those belonging to marginalized communities, as they face distinctive psychological difficulties that remain underexplored in Indian research.

In the face of growing awareness, significant research gaps persist, especially within the Indian context. Most studies combine prisoners regardless of their legal status, concealing how undertrial uncertainty can differ psychologically from the sentenced finality sustained by convicts. Some other studies make gender comparisons where they compare female vs. male, but they fail to consider the heterogeneity within the female prison population itself. Furthermore, psychological assessments and tools are predominantly derived from the Western context; for instance, Beck's Depression Inventory (BDI) or the Hamilton Anxiety Rating Scale (HAM-A), which raises serious concern about their cultural validity in such a diverse country like India, where somatic expressions and spiritual idioms may dominate symptom profiles.

Moreover, most existing studies tend to isolate variables, examining anxiety or depression in a vacuum, thereby overlooking the dynamic interplay between negative psychological states and positive constructs like hope and psychological well-being. The omission of the integrated models usually compromises our knowledge and understanding of building and nurturing resilience in carceral settings. Additionally, while the literature frequently advocated for gender-responsive interventions, very little existing research in India makes a difference by providing concrete, evidence-based policy recommendations. Lastly, qualitative insights and understanding are still rare. The voices, stories, narratives, and lived experiences of these imprisoned women, which are essential for developing trauma-informed, intersectional mental healthcare, are relatively absent from the existing research.

Based on these gaps identified, this research study adopts a comparative approach by analysing anxiety, depression, hope, and psychological well-being among undertrial and convicted female offenders. By amalgamating both negative mental health states (anxiety and depression) and positive psychological aspects (hope and well-being), the research seeks to provide a rich, culturally grounded picture of incarcerated women's psychological outlook in Indian prisons. The study is rooted in a trauma-informed, gender-responsive, and intersectional framework that acknowledges the complex interplay between carceral structures, individual biographies, and mental health outcomes.

In doing so, this research study not only addresses the existing scholarly gaps but also contributes toward a more humane, effective, and inclusive framework of prison psychology and mental healthcare. The findings obtained from the research may inform policy reforms, encourage the use of culturally valid assessment tools, and assist in developing comprehensive interventions aimed at healing rather than merely housing the incarcerated women.

## METHODS

### *Research Design*

This study employs a comparative cross-sectional design with descriptive and analytical components. It examines and compares anxiety, depression, hope, and psychological well-being between undertrial and convicted female

offenders at a particular point. This research design is most appropriate for the study, as it allows the author to compare the two groups directly and is suitable for measuring the psychological states at the time of participation.

### ***Participants***

The participants of the study are undertrial and convicted female offenders who are imprisoned (awaiting trial or serving their respective sentences) at the time of participation in the study. The sample size consisted of 43 undertrials and 52 convicts (N = 95). They were selected by the purposive sampling method, meaning they were considered eligible to participate in the study only if they met the required criteria. The data was collected from the prisoners of Sabarmati Central Jail, Lucknow District Jail, and Nari Bandi Niketan, Lucknow.

### ***Inclusion Criteria***

- The participant should be an adult female.
- The participant should either be an undertrial or a convicted female offender.
- The participant should hold Indian nationality.

### ***Exclusion Criteria***

- The participant is a minor.
- The participant is diagnosed with a severe mental health disorder.
- The participant has any cognitive impairments (as per prison records).
- The subject entirely served her sentence.
- The subject is out of prison on parole or bail.

### ***Tools***

In order to collect data from the voluntary participants, four standardized psychometric tests were administered. The tools used for the study are as follows:

#### **• Hamilton Anxiety Rating Scale (HAM-A)**

The Hamilton Anxiety Rating Scale was one of the first rating scales developed to be used by clinicians and in research settings to measure the severity of anxiety in patients facing its symptoms. It was originally developed and published by a British psychiatrist, Dr. Max Hamilton, in 1959. The test can be administered to adults, adolescents, and children in a clinical setting, and it takes about ten to fifteen minutes for administration. The 14 items on the scale, each of which is characterised by a set of symptoms, assess psychic anxiety (mental agitation and psychological discomfort) as well as somatic anxiety (physical ailments associated with anxiety).

#### **• Beck's Depression Inventory (BDI)**

Beck's Depression Inventory was first published by Dr. Aaron T. Beck, who is known as the father of cognitive therapy, in 1961. It is a psychometric tool designed to measure the severity of depression, to screen for depression, and to monitor the course of treatment. It is a self-report measure that consists of 21 items, each of which corresponds to a symptom of depression. The items are grouped into four categories: (a) Somatic (physical) symptoms, (b) Affective (emotional) symptoms, (c) Cognitive symptoms, and (d) Vegetative symptoms (refers to changes in sleep patterns and appetite)

#### **• Adult Hope Scale (AHS)**

Snyder's cognitive model of hope is measured by the Adult Hope Scale (AHS) which was developed by Snyder et al. in 1991. There are 12 items on the Adult Hope Scale. Four items measure agency thinking, four measure pathways thinking, and four are fillers. It just takes a few minutes for participants to complete the 8-point Likert-type scale, which ranges from definitely false to definitely true, for each item.

#### **• Ryff's Psychological Well-Being Scale (RPWB)**

The Ryff Psychological Well-Being Scale was developed by Carol D. Ryff in 1989. There are three versions of Ryff's Psychological Well-Being Scale. For this study, the shortest-length version that consists of 18 items is being used. It focuses on measuring and assessing the six major facets of psychological well-being. Each dimension consists of 3 items under it, and some of them have reverse scoring as well.

### ***Procedure***

The data was collected from Sabarmati Central Jail, Lucknow District Jail, and Nari Bandi Niketan, Lucknow, after obtaining necessary institutional permissions. To collect the data, a set of sheets was given to each participant, which included an Informed Consent Form, Participant Information Document, Socio-Demographic Information Form, Hamilton Anxiety Rating Scale (HAM-A), Beck's Depression Inventory (BDI), Adult Hope Scale (AHS), and Ryff's Psychological Well-Being Scale (RPWB). To ensure accessibility, all these documents and scales were translated into Gujarati and Hindi by experts in the field beforehand. Before data collection, rapport was established with the participants, and both verbal and written consents were obtained. The participants were informed about the study's purpose, their rights (including their right to withdraw from the study at any point), and the potential risks and benefits. Proper instructions were given to the participants

for the smooth administration of the scales. Post the data collection process, all the participants were thanked for their time and cooperation. Further, the data was coded, encrypted, and stored on Google Sheets to ensure confidentiality. After that, the data was updated on the IBM SPSS 20 software so that it could be statistically analysed appropriately.

Group statistics, independent t-tests, normality tests, and correlation tests were run to analyse the data obtained.

### ***Methods of Data Reduction and Analysis***

The data reduction and analysis plan for this study combines descriptive, correlational, and inferential statistics to understand differences and relationships between undertrial and convicted female offenders in terms of anxiety, depression, hope, and psychological well-being. This was evaluated by updating the results on the SPSS software.

## **RESULTS**

**Table 1 Group Statistics**

	Legal Status	N	Mean	Std. Deviation	Std. Error Mean
HAM-A	1	43	24.51	13.721	2.092
	2	52	17.71	11.627	1.612
BDI	1	43	25.56	12.909	1.969
	2	52	23.50	10.718	1.486
AHS	1	43	73.51	9.153	1.396
	2	52	69.27	11.125	1.543
RPWB	1	43	90.12	9.794	1.494
	2	52	89.88	12.816	1.777

**Figure 1 Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Hamilton Anxiety Rating Scale	Equal variances assumed	2.769	.099	2.615	93	.010	6.800	2.600	1.636	11.964
	Equal variances not assumed			2.574	82.681	.012	6.800	2.642	1.546	12.054
Beck's Depression Inventory	Equal variances assumed	3.705	.057	.849	93	.398	2.058	2.424	-2.755	6.871
	Equal variances not assumed			.834	81.678	.407	2.058	2.467	-2.849	6.965
Adult Hope Scale	Equal variances assumed	.077	.782	2.002	93	.048	4.242	2.119	.034	8.451
	Equal variances not assumed			2.039	92.999	.044	4.242	2.081	.111	8.374
Ryff's Psychological Well-Being Scale	Equal variances assumed	5.009	.028	.097	93	.923	.232	2.381	-4.496	4.959
	Equal variances not assumed			.100	92.468	.921	.232	2.322	-4.379	4.842

**Table 2 Tests of Normality**

Kolmogorov-Smirnov				Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Hamilton Anxiety Rating Scale	0.089	95	0.063	0.954	95	0
Beck's Depression Inventory	0.077	95	0.200*	0.981	95	0.170
Adult Hope Scale	0.122	95	0.001	0.904	95	0.000
Ryff's Psychological Well-Being Scale	0.068	95	0.200*	0.979	95	0.130

\*. This is a lower bound of the true significance.

**Table 3 Correlation between Hamilton Anxiety Rating Scale, Beck's Depression Inventory, Adult Hope Scale and Ryff's Psychological Well-Being Scale**

		Hamilton Anxiety	Beck's Depression	Adult Hope Scale	Ryff's Psychological
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		Rating Scale	Inventory		Well-Being Scale
Hamilton Anxiety Rating Scale	Pearson Correlation	1	0.768**	0.220*	-0.178
	Sig. (2-tailed)	-	0.000	0.032	0.085
	N	95	95	95	95
Beck's Depression Inventory	Pearson Correlation	0.768**	1	0.032	-0.313**
	Sig. (2-tailed)	0.000	-	0.760	0.002
	N	95	95	95	95
Adult Hope Scale	Pearson Correlation	0.220*	0.032	1	0.224*
	Sig. (2-tailed)	0.032	0.760	-	0.029
	N	95	95	95	95
Ryff's Psychological Well-Being Scale	Pearson Correlation	-0.178	-0.313**	0.224*	1
	Sig. (2-tailed)	0.085	0.002	0.029	-
	N	95	95	95	95

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

\* . Correlation is significant at the 0.05 level (2-tailed).

**Figure 2** *Correlation between Hamilton Anxiety Rating Scale, Beck's Depression Inventory and sub-scales of Ryff's Psychological Well-Being Scale*

		Hamilton Anxiety Rating Scale	Beck's Depression Inventory	Autonomy	Environmental Mastery	Personal Growth	Positive Relations with Others	Purpose in Life	Self-Acceptance
Hamilton Anxiety Rating Scale	Pearson Correlation	1	.768**	-.159	-.048	-.120	-.048	.119	-.276**
	Sig. (2-tailed)		.000	.123	.642	.247	.643	.250	.007
	N	95	95	95	95	95	95	95	95
Beck's Depression Inventory	Pearson Correlation	.768**	1	-.051	-.191	-.263*	-.117	.103	-.456**
	Sig. (2-tailed)	.000		.624	.063	.010	.259	.320	.000
	N	95	95	95	95	95	95	95	95
Autonomy	Pearson Correlation	-.159	-.051	1	.255*	.134	.163	-.090	.311**
	Sig. (2-tailed)	.123	.624		.013	.194	.115	.384	.002
	N	95	95	95	95	95	95	95	95
Environmental Mastery	Pearson Correlation	-.048	-.191	.255*	1	.147	.099	-.287**	.405**
	Sig. (2-tailed)	.642	.063	.013		.157	.339	.005	.000
	N	95	95	95	95	95	95	95	95
Personal Growth	Pearson Correlation	-.120	-.263*	.134	.147	1	.235*	.169	.272**
	Sig. (2-tailed)	.247	.010	.194	.157		.022	.101	.008
	N	95	95	95	95	95	95	95	95
Positive Relations with Others	Pearson Correlation	-.048	-.117	.163	.099	.235*	1	.102	.238*
	Sig. (2-tailed)	.643	.259	.115	.339	.022		.326	.020
	N	95	95	95	95	95	95	95	95
Purpose in Life	Pearson Correlation	.119	.103	-.090	-.287**	.169	.102	1	-.163
	Sig. (2-tailed)	.250	.320	.384	.005	.101	.326		.114
	N	95	95	95	95	95	95	95	95
Self-Acceptance	Pearson Correlation	-.276**	-.456**	.311**	.405**	.272**	.238*	-.163	1
	Sig. (2-tailed)	.007	.000	.002	.000	.008	.020	.114	
	N	95	95	95	95	95	95	95	95

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

\* . Correlation is significant at the 0.05 level (2-tailed).

## DISCUSSION

The current research study sought to explore and compare levels of anxiety, depression, hope, and psychological well-being among undertrial and convicted female prisoners in the context of an Indian prison. The objectives of the study include (a) measuring and comparing levels of anxiety and depression among undertrial and convicted female offenders; (b) assessing the sense of hope in both groups; (c) assessing and comparing psychological well-being across different dimensions (e.g., self-acceptance, autonomy, purpose in life) among undertrial and convicted female offenders; (d) finding out whether factors such as duration of incarceration and legal uncertainties bring about differences in psychological variables; and (e) assessing the relationship between anxiety, depression, hope, and psychological well-being in the two groups. The findings reveal a stark psychological toll that imprisonment has on women, with subtle variations between those awaiting trial and those already convicted.

Consistent with existing literature, anxiety and depression emerged as highly prevalent among both undertrial and convicted women, with undertrial inmates reporting significantly higher anxiety. This finding corroborates



Xavier and Karunanidhi's (2019) observation that procedural delays and the uncertainty of legal outcomes contribute to a serious increase in psychological stress. The heightened anxiety among undertrials also confirms previous research by Channabasavanna et al. (1979). It aligns with larger and broader patterns as reported by Maruschak et al. (2021), who reported disproportionately high levels of anxiety among female prisoners.

Depressive symptoms were also prevalent, particularly among undertrials. This pattern corroborates Hurley and Dunne's (1991) and Boothby and Durham's (1999) findings that legal limbo intensified psychological vulnerability. Drawing from Fedock's (2017) deprivation and importation theories, the findings underscore how imprisonment intensifies both structural neglect and personal trauma. Surprisingly, notwithstanding the relative emotional stability as presented by some convicted women, possibly in alignment with Harner and Riley's (2013) concept of emotional adaptation, this may be an indication of institutionalization rather than psychological recovery.

Recent studies in Thailand reported an alarmingly high prevalence of anxiety and depression among women prisoners, with 78.8% showing moderate to severe symptoms, and identified chronic illness, shame, and family economic concerns as significant contributing factors (Chalermopol et al., 2024). A scoping review also established that anxiety and depression prevail among females in prison, in addition to substance use, stress, and trauma, with inappropriately low mental health provision (Hidayati et al., 2021). These findings are consistent with qualitative research highlighting how incarceration restricts self-management abilities and perpetuates mental health challenges (NCBI, 2022).

Although the literature establishes hope as a protective factor (Davis, 2005; Mak et al., 2021), this study also indicates that the undertrials are more hopeful than the convicts, contradicting the findings of Jagdish (2021). The overall moderate levels of hope indicate a collective feeling of powerlessness, which is probably based on a perceived lack of control over one's future. This observation is supported by Singh (2020) and Pandya (2016), who observed that hope necessitates empowering conditions such as autonomy, social support, and access to resources, which are often absent in overcrowded and under-resourced prisons.

However, the positive correlation that emerged between hope and psychological well-being provides a significant insight: even in restrictive conditions, fostering hope through interventions like education, spiritual engagement, or legal support (Parenti et al., 2023) might create tangible mental health benefits.

In the Indian context, a study based in Tihar Jail demonstrated how positive affect contributed enormously to hope and resilience among women prisoners, with undertrial females being more hopeful for release but still facing significant emotional difficulties (Sharma, 2022). However, hopelessness is a concern, especially among those with poor socioeconomic status factors and limited access to work or education during imprisonment (de Souza et al., 2022).

Across both groups, psychological well-being scores were low, pointing to system deficiencies and failure rather than individual faults. This concurs with Slotboom et al. (2011) and Hassan et al. (2023), who underscored that institutional factors, such as overcrowding, lack of privacy, and unsupportive staff, contribute more significantly to well-being than inmates' personal histories. Social support was found to have some buffering effects (Mefoh et al., 2016), but it was still ineffective in the absence of structural reform.

The high inverse correlation between anxiety or depression and psychological well-being also demonstrates how poor mental health undercuts emotional resilience. Participants with higher depression also reported significantly lower hope, purpose in life, and self-acceptance, elements central to positive functioning.

The gendered nature of incarceration is still pronounced. Per Melaku and Hunde (2020) and Raha et al. (2018), women prisoners experience specific psychological stressors, ranging from inadequate menstrual hygiene to separation from children and lack of gender-responsive care. Notably, the research discovered age as a possible factor of resilience, inferring that older females can act as peer mentors or emotional anchors within the prison community (Belfrom, 2021).

The findings validate the research's primary hypothesis that undertrial women experience significantly poorer psychological consequences, particularly in terms of anxiety and depression, and hope is tenuous, while psychological well-being remains universally poor. These insights and observations call for a fundamental reorientation of the prison system, from a punitive to a rehabilitative model.

Following the frameworks proposed by Bloom and Convington (2008) and Hidayati et al. (2023), the research study advocates for trauma-informed, gender-sensitive, and legally supportive interventions. This includes (a) timely legal aid to reduce trial-related stress; (b) access to mental health services and trauma counseling; (c) parenting support and family contact initiatives; (d) vocational and educational training; and (e) programs that promote hope, autonomy, and emotional development and growth. In the absence of such reforms, imprisonment will continue to perpetuate psychological harm rather than foster rehabilitation and reintegration.

## CONCLUSION

The study highlights the unique psychological profiles of undertrial and convicted female offenders, revealing that while undertrials are found to exhibit elevated anxiety due to legal uncertainty, they also reflect a comparatively greater sense of hope. Convicted inmates, on the other hand, exhibit higher depressive symptoms and diminished psychological well-being, likely reflecting the long-term emotional toll of incarceration. The fact that the two conditions run strongly together in both groups indicates that there is a need for holistic and integrated mental health care within the correctional facilities.

Notably, the positive correlations among hope, personal growth, and psychological well-being imply that focused interventions promoting emotional resilience, purpose, and personal relations with others would improve outcomes for women in prison substantially. These findings also underscore the imperative for trauma-informed, gender-responsive, and rights-based correctional mental health reforms.

Although the study provides critical insights, its cross-sectional design, limited sample size, and use of self-report measures indicate the requirement for additional longitudinal, multi-site, and mixed-method research. Future research should investigate the effects of psychological interventions and consider exploring post-release outcomes, providing a more complete picture of the long-term psychological consequences of incarceration.

By addressing the psychological needs of imprisoned women, especially the often-overlooked undertrial population, this research study advocates for a shift from containment-based punishment to rehabilitative care, with mental health at the centre.

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