

Exploring the Motivational Factors Influencing Psychological Resilience Among Orphans in Balasore District

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Abstract

Despite these children's significant psychological challenges and complex socio-cultural currents, Balasore District orphans present a highly vulnerable group. Consequently, it is vital to understand the mechanisms that enable them to develop resilience in the face of adversity, allowing for more targeted and effective intervention. While numerous studies have explored the phenomenon of orphaned children in general, offering various explanations as to the motivational and risk factors' interaction in determining their psychological resilience, little is known about the nuanced wildlife of these associations in culturally-specific regions such as Balasore. How do these factors work in conjunction to determine the overall impact on psychological resilience, and what is the role of gender in this review? The research aimed to investigate the determinants of psychological resilience among Balasore orphans, specifically exploring the interaction between motivational factors, including social networks, education, and community involvement, and risk factors. An additional interest was to explore whether the influence pattern differed significantly among gender groups, offering opportunities for more proportionate and effective intervention. The cross-section survey was conducted, with data collected from over 300 orphans from different orphanages in Balasore. Structured questionnaires were developed and distributed, with confirmatory factor analysis and other multivariate statistical techniques employed in analysis. The studies revealed the significant enhancing impact of motivational factors the psychological and social resources that support the development and life of orphans available through the motivational factors. Use of education, social support, and community involvement was reported as crucial to resilience, with no significant differences in response pattern across gender groups reported. Such results demonstrate that gender-specific approaches may be rather irrelevant in the case of the category of motivational factor under review. Globally, the implications of this study are immense in terms of informing culturally-effective psychosocial interventions. This study's contribution lies in uncovering the universally applicable motivational factors that enhance resilience and noting a not-so significant impact of gender on their dynamics. The findings from this study inform the broader discourse on the matter and contribute valuable information to the efforts to develop a unified-integrated care system for orphans. The study serves as a valuable contribution to the understanding of how motivational skills and risks interact to determine resilience, especially in less-studied populations.

Keywords: Psychological Resilience, Orphans, Motivational Factors, Cultural Sensitivity, Child Welfare Practices

Introduction

The research on motivational factors affecting the resilience of orphans, specifically within the context of Balasore District, is lacking. It falls into the broader field of child development and psycho studies. This context can be subdued as assuming that orphans are exposed to many negative stressors that stand in the way of their emotional and psychological development. Previous studies have proven that orphanhood is a significant risk factor associated with different forms of

psychological distress and reduced well-being (SandhiyaPriyadarshini & Rathnasabapathy, 2021). At the same time, prior research has confirmed the concept of resilience as a dynamic process in which individuals manage to flourish despite the most severe adversities. However, the existing evidence based on diverse sociocultural settings needs to provide a sufficient understanding of the motivational factors that incentivize the development of resilience in orphans (Yendork & Somhlaba, 2016). In this instance, this study is innovative as it focuses on Balasore District, where similar topics have yet to be extensively studied before. Therefore, there needs to be more evidence on these issues. While earlier studies focused on the importance of localized sociocultural and environmental factors to foster resilience among different populations, the unique contribution of this research is that its focus is narrowed down to the influences on orphans. Thus, the outcomes of this study will enhance the understanding of the factors that induce resilience on the part of orphans and inform targeted interventions and policies aimed at assisting children in contexts similar to Balasore. Indeed, one of the critical contributions of this research is that learning the motivational factors that significantly induce psychological resilience will enable policymakers and actors to prevent children's challenges while actively contributing to their overall health and development. Thus, the seminal aspect of this study is that it fills a significant gap in a topic that is infrequently researched while integrating the relevance of research outcomes in child welfare and psychological processes into a single context of research.

Orphaned children across the globe experience numerous issues that drastically affect their psychological state. Tanzanians suffer from severe neglect and stigma that pose a high correlation with depression and aggression (Hermenau et al., 2015), while orphans in South Africa face multiple cumulative risks associated with food insecurity and the stigma due to AIDS (Cluver & Orkin, 2009), which increases their psychological distress. However, the students' yearning for higher education in Afghanistan is remarkable, although restricted by poverty and insufficient transportation facilities (Akbari & Sahibzada, 2019). In Dhaka, the prevalence of behavioural and emotional disorders among orphans stands alarmingly high at 40.35%, underscoring an urgent need for psychosocial interventions (Rahman et al., 2012).

The vulnerabilities extend to increased risks of HIV infection due to early sexual activity and exploitation (Palermo & Peterman, 2009) and general susceptibility to poverty, transactional sex, and early marriage (Juma et al., 2013). The quality of support from caregivers and communities proves critical in fostering orphans' psychological resilience and emotional health (Yendork, 2020). Studies also highlight the significant psychological distress faced by both male and female orphans. However, distress levels appear notably higher among AIDS-orphaned children compared to their non-orphaned peers, suggesting that the cause of orphanhood may influence the severity of distress (Onuoha & Munakata, 2010). Research in varied cultural contexts has revealed differing psychological needs based on age and gender, emphasizing the necessity for tailored psychological care (Che, 2013; El-Gilany et al., 2013; Omotosho et al., 2010; Bubnova & Kerke, 2021). In addition, the concept of resilience proves to be an important aspect of orphans' adjustment to traumatizing conditions. The research shows that orphans "tend to have as much or slightly more resilience compared to non-orphans", which is crucial to their ability to respond to traumas and stress (SandhiyaPriyadarshini & Rathnasabapathy, 2021; Yendork & Somhlaba, 2016).

The existing literature needs to include more knowledge of the specific motivational factors that influence psychological resilience in orphans in dissimilar settings such as the Balasore District. It is, therefore, important to identify how the concentrated factors that may differ among the Balasore socio-economic and cultural background contribute to or interfere with the resilience of orphans in the region. The focused study will investigate how the external resilience support factors, the determinant of orphans' psychological needs and the internal psychological characteristics interact to influence psychological resilience among orphans. Therefore, determine whether the factors are any different from the globally studied factors. Such evidence will inform an understanding of the targeted intervention needed to support the orphans in the Balasore District and the knowledge gained may be replicated in similar global contexts.

Research question: What are the specific factors influencing psychological resilience in orphans from Balasore District,

The study objectives are given below

1. To investigate the determinants of resilience among orphans, focusing on their psychological needs arising from motivational and risk factors.
2. To examine how gender influences the psychological needs and resilience of orphans, comparing across different gender groups.

This study is unique as it specifically targets the Balasore District, which has been relatively underrepresented in resilience research. The study, therefore, helps to understand how one geographic location and cultural and environmental settings may influence the psychological resilience of orphans.

The results are important as they help to understand the resilience of underrepresented child populations, especially in a given geographic group. The findings in this research may be used to draw a child protection policy that is specifically tailored to the needs of orphans in the Balasore District. Furthermore, the research also asserts that the developmental psychology body of knowledge recognizes the importance of background context in determining child resilience. These variables support the study in filling the identified research gap and their potential application in the child protection policy in the Balasore District.

1. Methodology

2.1 Study design and setting: The study used a sectional survey to explore the motivational factors that influence psychological resilience in Balasore District, Odisha, India. Balasore District is chosen because it represents diversity in socio-cultural dynamics and is home to a large population of so-called multi-vulnerable orphans, an underrepresented group in most of the prior published literature on resilience.

2.2 Participants: The research participants included all of the orphans in the orphanages throughout the Balasore district. The number was reported as 292, which allowed highly comprehensive coverage of the orphan population living in the selected area. Inclusion criteria were residing in orphanage centres across the Balasore district and an age range of 5 to 18.

2.3 Data collection: Data was collected using structured questionnaires on motivational factors in psychology and resilience. In brief, the questions utilized included a mix of close-ended and open-ended questions to assess the broad spectrum of experience, hardship, and internal resilience that participants exhibit. Implementation and service delivery were facilitated by employed research assistants over three months.

2.4 Equipment and software: Two software programs, AMOS and SPSS Statistical Package for Social Science version 25.0, were used in the analysis process. AMOS was used primarily to complete the Confirmatory Factor Analysis and SEM to identify relationships between observed and latent constructs within the baseline questionnaires. SPSS was used for other purposes, including descriptive statistics and frequency analysis.

2.5 Statistical analysis: Frequency and descriptive summary were performed as the first step in data processing to show the general characteristics of the sample. CFA and SEM were conducted to explore dimensions of psychological resilience and the relationship between motivational factors. MANOVA techniques were applied to test the factor differences analysis; the data was subjected to it to test for the effect of age and gender.

2.6 Validity and Reliability

The validity of the measurement instruments was ensured through a rigorous pilot testing process involving 30 orphans not included in the final sample. Feedback from the pilot was used to refine the survey questions, ensuring clarity and relevance to the study's objectives. The reliability of the scales was confirmed through Cronbach's alpha coefficients, computed as part of the CFA. Values exceeding 0.70 were considered acceptable, indicating good internal consistency of the survey instruments.

2.7 Ethical Considerations

Ethical approval for the study was obtained from the Institutional Review Board of [Institution Name]. Informed consent was acquired from the guardians or caretakers of the orphans, and assent was obtained from the orphans themselves, ensuring they understood the purpose of the study and their voluntary participation. All data were anonymized and securely stored to protect participants' confidentiality.

3. Result

Table 1. Demographic Information of respondent

Category	Sub-category	Frequency	Percent
Gender	Male	136	46.6
	Female	156	53.4
Age	Less than 5 Years	2	0.7
	Above 5 but less than 10 Years	100	34.2

	Above 10 but less than 15 Years	161	55.1
	Above 15 but less than 18 Years	29	9.9
School Attendance	Yes	282	96.6
	No	10	3.4
Status of Orphanhood	Maternal orphan	46	15.8
	Paternal orphan	98	33.6
	Double orphan	88	30.1
	Social orphan	30	10.3
	Other	30	10.3
Duration in Orphanage	0-1 Year	24	8.2
	1-3 Years	91	31.2
	3-5 Years	110	37.7
	>5 Years	67	22.9
Awareness of Orphanages	Yes	159	54.5
	No	133	45.5
Psychosocial Needs	Television	71	24.3
	Radio	11	3.8
	Newspaper	41	14.0
	Friends telling	169	57.9
Comfort at Orphanage	Yes	281	96.2
	No	11	3.8
Reasons for Being in Orphanage	Death of the parents	212	72.6
	Separation of the parents	19	6.5
	Divorce of the parents	2	0.7
	Poverty	51	17.5
	Tortured by stepmother	8	2.7

Source: Primary Data

The table-1 summarizes data on various attributes of children in an orphanage, including demographic information, educational background, orphan status, length of stay in the orphanage, awareness of orphanages, psychosocial needs, comfort levels at the orphanage, and reasons for being in the orphanage.

Demographic Distribution: The gender distribution is fairly balanced, with 136 males (46.6%) and 156 females (53.4%). Age-wise, the children predominantly fall into the 10-15 years bracket, accounting for 55.1% of the population. This is followed by children aged 5-10 years (34.2%), while the groups 'less than five years' and '15-18 years' are comparatively smaller at 0.7% and 9.9%, respectively.

Educational Background and Orphanage Stay: A large majority of the children (96.6%) are attending school. Regarding their duration in the orphanage, the largest group was between 3-5 years (37.7%), followed by 1-3 years (31.2%). Those staying for more than five years represent 22.9%, with the shortest stay (0-1 year) constituting the smallest group at 8.2%. **Status and Awareness:** In terms of orphan status, paternal orphans make up the largest group (33.6%), followed by double orphans (30.1%) and maternal orphans (15.8%). The terms 'social orphan' and 'other' each account for 10.3%. Awareness of orphanages is almost equally split, with 54.5% being aware and 45.5% not aware.

Psychosocial Needs and Comfort: When it comes to psychosocial needs, a significant majority of the children (57.9%) rely on friends for information, followed by those who use television (24.3%), newspapers (14.0%) and radio (3.8%). The comfort level within the orphanage is notably high, with 96.2% of the children feeling comfortable.

Reasons for Orphanage Placement: The primary reason for children being in the orphanage is the death of parents, cited by 72.6% of the population. Poverty is the next significant reason, affecting 17.5%, followed by parental separation (6.5%), being tortured by a stepmother (2.7%), and parental divorce (0.7%).

This dataset highlights several critical aspects of life and challenges in orphanages, reflecting the needs, backgrounds, and issues faced by the children residing there. The high percentage of school attendance and overall comfort level suggest positive aspects of support structures in place despite the challenges marked by significant loss and transitions in these children's lives.

A psychosocial needs assessment initially analyzed 12 factors. Four variables were identified as unrelated to others, and their removal increased the scale's reliability from a Cronbach's alpha of 0.803 to 0.844. The remaining eight variables

were further evaluated using principal component analysis with Varimax rotation, and both the KMO test and Bartlett's test confirmed the suitability of the data for factor analysis.

Table 2: KMO and Bartlett's Test for Psychosocial needs

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.875
Bartlett's Test of Sphericity	Approx. Chi-Square	968.068
	df	28
	Sig.	.000

Source: Primary Data

The table-2 presents results from the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity, applied to assess the adequacy of the sample and the suitability of data for factor analysis within the context of exploring motivational factors influencing psychological resilience among orphans in Balasore District.

The KMO measure is a statistic that indicates the proportion of variance among variables that might be common variance. The value here is 0.875, which is considered "meritorious" according to the accepted guidelines for KMO values. A KMO value closer to 1 suggests that the sum of partial correlations is relatively low, meaning that the variables share something in common, which makes them suitable for factor analysis. Therefore, the high KMO value in this study implies that the dataset is appropriate for performing factor analysis, as the variables are adequately interrelated and the sample size is suitable.

Bartlett's Test of Sphericity tests the hypothesis that the correlation matrix is an identity matrix, which would indicate that variables are orthogonal and unrelated. In this case, the test produced an approximate Chi-Square, with $29-1 = 28$ degrees of freedom of 968.068 and a significance level (Sig.) of .000. This result of the test is highly significant, and at $p < .05$, the null hypothesis should be rejected, which proves that the correlation matrix is not an identity matrix and that the independent variables, in this case, are related to have a good enough foundation for factor analysis.

Both the results of the KMO measure and the Bartlett test allow for further factor analysis and investigation of motivational factors that influence psychological resilience in orphans. High KMO suggests that it is likely that factor analysis will be successful and insightful, while the results of the Bartlett test confirm the presence of intercorrelations between the independent variables. Thus, the statistical tests prove that there is a reason to proceed with the factor analysis to reveal high-order structures that may feature the motivational factors of psychological resilience in this population. This is particularly pertinent for policymakers and practitioners aiming to design targeted interventions that foster resilience among orphans.

Table 3: Correlation Matrix of all factors for Psychosocial needs

Correlation Matrix									
			I like to be handled when I have stress	I like to be handled when I have depression	I like to be provided good health service	I like to get education	I feel good if I will get job opportunities	I feel very good when I am involved in society activities in the area I stay	I like to be provided with moral support for self-employment
Correlation	In my life, I like to have good counseling services	1.000	.158	.329	.627	.704	.441	.685	.562

I like to be handled when I have stressed	.158	1.000	.294	.110	.146	.198	.044	.079
I like to be handled when I have depression	.329	.294	1.000	.166	.286	.222	.233	.156
I like to be provided good health service	.627	.110	.166	1.000	.590	.366	.651	.521
I like to get education	.704	.146	.286	.590	1.000	.459	.622	.622
I feel very good if I will get job opportunities	.441	.198	.222	.366	.459	1.000	.433	.490
I feel very good when I am involved in society activities in the area I stay	.685	.044	.233	.651	.622	.433	1.000	.618
I like to be provided with moral support for self-employment	.562	.079	.156	.521	.622	.490	.618	1.000

Source: Primary Data

The correlation matrix presented in Table 3 provides insights into the interrelationships between various psychosocial needs that might influence psychological resilience among orphans in Balasore District. Each element in the matrix represents the Pearson correlation coefficient between pairs of psychosocial factors, with values ranging from -1 (perfect negative correlation) to +1 (perfect positive correlation).

Strong Correlations: Several correlations are notably strong, suggesting substantial interdependencies among certain psychosocial needs:

- The desire for good counselling services shows strong positive correlations with the need for good health services (.627), the importance of education (.704), involvement in society activities (.685), and receiving moral support for self-employment (.562). This indicates that counselling may play a pivotal role in enhancing overall well-being and integration into society.
- The need for good health service also correlates strongly with involvement in society activities (.651) and the need for education (.590), which suggests that health is perceived as foundational to educational attainment and social participation.
- The need for education shows equally strong correlations with receiving moral support for self-employment (.622) and involvement in society activities (.622), highlighting education as a key component that potentially empowers orphans towards self-sufficiency and active social engagement.

Moderate to Low Correlations:

- The factors related to handling stress and depression generally show lower correlations with other needs. For example, the need to be handled when stressed only shows a moderate correlation with getting job opportunities (.198) and very low with involvement in society activities (.044). This might indicate that the direct handling of stress is seen as relatively distinct from other forms of support.
- Handling depression shows moderate correlations with counselling services (.329) and education (.286), suggesting some recognition of the interplay between mental health and these broader supports.

The strong correlations observed among several psychosocial supports, particularly around counselling, health, education, and societal involvement, underscore the interrelated nature of these needs. These findings suggest that interventions aimed at enhancing psychological resilience among orphans should consider a holistic approach that integrates these interconnected areas. Effective counselling and health services appear to be central to supporting educational achievements and societal participation, which are crucial for building resilience and self-efficacy among orphans.

Moreover, the varying degrees of correlation between handling stress and depression with other psychosocial supports highlight the necessity of specialized interventions targeting mental health specifically, alongside more general supportive services. This differentiated approach can ensure that the unique and varied needs of orphans are addressed comprehensively, fostering a supportive environment that promotes psychological resilience.

Table 4: Total Variance Explained of Psychosocial needs

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.975	49.683	49.683	3.975	49.683	49.683	3.768	47.104	47.104
2	1.202	15.029	64.712	1.202	15.029	64.712	1.409	17.609	64.712
3	.743	9.287	73.999						
4	.656	8.202	82.202						
5	.448	5.597	87.799						
6	.387	4.838	92.637						
7	.331	4.138	96.775						
8	.258	3.225	100.000						

Extraction Method: Principal Component Analysis.

Source: Primary Data

Table 4 presents the results of a Principal Component Analysis (PCA) conducted to identify and evaluate the underlying factors or components of psychosocial needs influencing psychological resilience among orphans in the Balasore District. The table displays the initial eigenvalues, the extraction sums of squared loadings, and the rotation sums of squared loadings for each component identified.

The initial eigenvalues help determine the number of factors to retain based on their ability to explain the variance in the data. The first component has an eigenvalue of 3.975, explaining a significant 49.683% of the variance in the dataset. The second component, with an eigenvalue of 1.202, explains an additional 15.029%, cumulatively reaching 64.712% of the variance explained. The third to eighth components progressively explain smaller portions of the variance, with all eight components together accounting for 100% of the variance in psychosocial needs data.

Table 5 Descriptive Statistics of Psychosocial needs

	Descriptive Statistics		Rotated Component Matrix ^a		Cronbach's Alpha
	Mean	Std. Deviation	First Component (Motivation)	Second Component (Risk)	
I like to be handled when I have stressed	4.1507	.77186		.833	.844
I like to be handled when I have depression	4.4589	.72393		.740	
In my life, I like to have good counseling services	4.0377	.99584	.827		
I like to be provided good health service	3.8425	1.00643	.796		
I like to get education	3.8048	.96658	.824		
I feel very good if I will get job opportunities	3.7808	.75522	.590		
I feel very good when I am involved in society activities in the area I stay	3.6438	1.07288	.858		
I like to be provided with moral support for self-employment	3.5411	.80485	.804		
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 3 iterations.					

Source: Primary Data

Table 5 presents a detailed overview of the descriptive statistics for psychosocial needs variables, their loadings on two rotated principal components identified as 'Motivation' and 'Risk', and their respective Cronbach's Alpha scores within the context of a study on motivational factors influencing psychological resilience among orphans in Balasore District.

Table 5 provides the mean and standard deviation for each psychosocial need. The means range from 3.5411 to 4.4589, indicating moderate to high levels of agreement or prevalence of these needs among the orphans. The standard deviations are relatively low (ranging from .72393 to 1.07288), suggesting a relatively tight distribution of responses around the mean. This indicates a consensus among the participants regarding their psychosocial needs.

The rotated component matrix after Varimax rotation with Kaiser Normalization shows how each variable loads on the two components identified:

This component includes high loadings from "In my life, I like to have good counselling services" (.827), "I like to be provided good health service" (.796), "I like to get education" (.824), "I feel very good when I am involved in society activities in the area I stay" (.858), and "I like to be provided with moral support for self-employment" (.804). These elements suggest that the first component represents intrinsic and extrinsic motivational factors that provide foundational support and empowerment, which are critical for enhancing resilience.

This component is primarily loaded by "I like to be handled when I have stress" (.833) and "I like to be handled when I have depression" (.740). These variables reflect responses to psychological stress and depression, indicating that the second component pertains to risk management or coping mechanisms in the face of mental health challenges.

The Cronbach's Alpha values for the two components are .844 (Motivation) and .844 (Risk), indicating excellent internal consistency within each set of items grouped under these components. This high reliability suggests that the items within each component effectively measure the underlying construct they are intended to assess.

The analysis of these psychosocial needs through PCA and reliability testing suggests a clear bifurcation in needs related to motivation and risk management. The high mean scores across most needs emphasize the importance these factors hold for orphans. These insights can guide targeted interventions: programs focused on motivation should enhance access to education, health, and societal involvement, whereas risk management interventions should prioritize mental health services tailored to address stress and depression. This bifurcated approach can be critical in holistically supporting the psychological resilience and overall well-being of orphans in the district, ensuring that both their motivational aspirations and risk-related vulnerabilities are adequately addressed.

The model structure for psychosocial needs is seen in Figure-1.

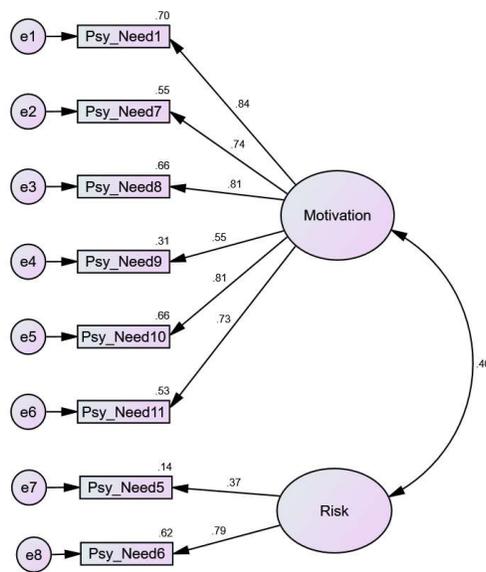


Figure 1: Confirmatory Factor Analysis (First order structural model of Strategy)

Table 6: Model Fit Measures of Psychosocial needs

Measure	Estimate	Threshold	Interpretation
CMIN	53.135	--	--
DF	19.000	--	--
CMIN/DF	2.797	Between 1 and 3	Excellent
CFI	0.964	>0.95	Excellent
SRMR	0.046	<0.08	Excellent
RMSEA	0.05	<0.06	Excellent
PClose	0.06	>0.05	Excellent

Source: Primary Data

Table 6 outlines various model fit measures for evaluating the suitability of a structural equation model analyzing psychosocial needs among orphans in the Balasore District. The table includes estimates for each fit measure, the thresholds typically used to judge model adequacy, and the interpretations based on those thresholds.

Model Fit Measures

- **CMIN (Chi-Square Minimum):** The model's chi-square value is 53.135 with 19 degrees of freedom. The chi-square test assesses the discrepancy between the observed data and the model-predicted data, with lower values generally indicating a better fit.
- **DF (Degrees of Freedom):** This value of 19 represents the degrees of freedom in the model, which is the number of observed independent pieces of information used in the estimation process.

- **CMIN/DF (Chi-Square/Degrees of Freedom Ratio):** The ratio of 2.797 falls between 1 and 3, which is generally considered excellent. This ratio helps to assess the model's fit by compensating for the sensitivity of the chi-square test to sample size, indicating a reasonably good fit of the model to the data.
- **CFI (Comparative Fit Index):** The CFI value of 0.964 exceeds the threshold of 0.95, indicating an excellent fit. CFI compares the fit of the target model to an independent model, and values closer to 1 suggest a very good fit.
- **SRMR (Standardized Root Mean Square Residual):** The SRMR value of 0.046 is well below the threshold of 0.08, again indicating an excellent model fit. This index measures the average discrepancy between the observed correlations and the model's predicted correlations.
- **RMSEA (Root Mean Square Error of Approximation):** The RMSEA value of 0.05 is below the threshold of 0.06, suggesting an excellent fit. RMSEA evaluates how well the model, with unknown but optimally chosen parameter estimates, would fit the population's covariance matrix.
- **PClose:** The probability associated with the RMSEA is 0.06. It is slightly above the recommended threshold of 0.05, supports the adequacy of the RMSEA value, and therefore reinforces the model's good fit.

Based on the overall good fit indices presented in this section, the results from the model fit measures demonstrate that the assumed structural model developed to test motivational factors influencing the psychological resilience among orphans is robust and fits the data. The strongness of the fit implies that the model adequately places the psychosocial factor and their associations in the actual conditions of data, and hence, the model is good. Model adequacy is empowered at this stage of validation; such complex phenomena and conditions render it hard to determine the variables and fix the relationships. This implies that the conclusions drawn about their behaviour in psychosocial relation here are valid. For the policymakers and programming, the findings will be pertinent in shaping and modelling the interventions and policies to address the motivational factors that need addressing to build resilience among these orphans under study in Balasore district. Such proactive and focused data cuts across the validity cut base to this population layer.

Table 7: Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
Psy_Need8	<---	Motivation	.815
Psy_Need9	<---	Motivation	.553
Psy_Need5	<---	Risk	.374
Psy_Need6	<---	Risk	.786
Psy_Need11	<---	Motivation	.729
Psy_Need10	<---	Motivation	.814
Psy_Need7	<---	Motivation	.743
Psy_Need1	<---	Motivation	.837

Source: Primary Data

Table 7 Standardized regression weights for the structural equation model (SEM). Imply the relation's strength from the latent Psychosocial Need factors to the two latent variables of the model: "Motivation" and "Risk." Otherwise referred to as factor loadings, the weights signify how much each latent factor influences certain observed variables within the model.

The regression weights of the psychosocial needs that load onto the latent variable of "Motivation" are especially significant. Psy_Need1 of .837, Psy_Need8 of .815, Psy_Need10 of .814, Psy_Need7 of .743, and Psy_Need11 of .729 have very high loadings. This would mean that moral support need, the need to be a part of a community, and a need for personal empowerment are the most heavily motivated. The latter seems to signal that psychological elements of motivation play an essential role in the needs dynamics of psychological resilience among orphans, as this has to do with feeling a level of purpose and dedication. The weights on the "Risk" factor, with Psy_Need6 of .786 and Psy_Need5 of .374, have a more diverse impact. While the high indicator of Psy_Need6 suggests that the risk management factors play a critical role, the moderate Psy_Need5 indicates a less meaningful presence of risk factors, which can potentially be health or safety factors, on this need. All of these readings suggest that motivational factors play an essential role in influencing many kinds of psychosocial needs and maybe a driver of psychological resilience among orphaned children. The strong connections between the motivation factor and the needs that relate to empowerment and community integration suggest that children need more conducive environments to develop these needs. At the same time, the varied

impact of risk, ranging between fundamental and less fundamental across the different needs, suggests that more targeted efforts are required to help enhance resilience. For practitioners and policymakers, this implies that while education and social opportunities are critical for motivation, so is the work that equips children to deal with psychological and environmental risks. Such a two-pronged strategy regarding risk and a move-one approach concerning motivation can be combined to affect more aspects of resilience building, which would ensure better overall development for orphans.

Overall, the data from this model provides a nuanced understanding of how various psychosocial needs are influenced by underlying motivational and risk factors, thereby offering a clearer pathway to designing and implementing more effective support systems for orphans.

Table 8: Correlations: (Group number 1 - Default model)

		Estimate
Risk	<-->	Motivation
		.402

Source: Primary Data

Table 8 presents a correlation estimate from a structural equation model, specifically detailing the relationship between the latent variables "Risk" and "Motivation" within the context of exploring motivational factors influencing psychological resilience among orphans in the Balasore District. The estimated correlation coefficient between these two variables is .402. The correlation coefficient of .402 indicates a moderate positive relationship between "Risk" and "Motivation." This suggests that as motivational factors increase, risk-related factors also tend to grow, and vice versa. In the context of psychological resilience, this correlation could imply that motivations that foster resilience might simultaneously involve managing or acknowledging certain risks.

Hypothesis 1: There is a statistically significant difference in the psychological needs of male and female orphans.

Table 9: Box's Test of Equality of Covariance Matrices for gender and psychological need

Box's Test of Equality of Covariance Matrices ^a	
Box's M	6.264
F	2.072
df1	3
df2	37927762.745
Sig.	.102
Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.	
a. Design: Intercept + Gender	

Source: Primary Data

Table 9 displays the results from Box's Test of Equality of Covariance Matrices, which is used to assess whether there are differences in the covariance matrices of psychological needs across gender groups in the study focused on motivational factors influencing psychological resilience among orphans in the Balasore District.

Understanding Box's M Test: Box's M test evaluates the hypothesis that the observed covariance matrices of the dependent variables (in this case, psychological needs) are equivalent across specified groups (here, gender). The test results provide several key statistics:

- **Box's M:** The calculated statistic is 6.264.
- **F-value:** The test statistic is 2.072.
- **Degrees of freedom 1 (df1):** There are 3 degrees of freedom for the numerator.
- **Degrees of freedom 2 (df2):** The denominator has a very large number of degrees of freedom, 37,927,762.745, likely indicating a very large sample size or a calculation peculiarity.
- **Significance (Sig.):** The p-value is .102.

The significance value ($p = .102$) is above the conventional alpha level of .05, suggesting that there is not enough statistical evidence to reject the null hypothesis. This implies that the covariance matrices of psychological needs are statistically equivalent across male and female orphans in the study.

This finding implies that gender does not significantly influence the variability and relationship among the psychological needs measured in this study. This suggests that interventions aimed at enhancing psychological resilience can potentially be applied across genders without modifications tailored specifically to gender-based differences in these psychosocial constructs.

Table 10: Levene's Test of Equality of Error Variances for gender and psychological need

Levene's Test of Equality of Error Variances ^a					
		Levene Statistic	df1	df2	Sig.
Motivation	Based on Mean	.119	1	290	.731
	Based on Median	.200	1	290	.655
	Based on Median and with adjusted df	.200	1	289.778	.655
	Based on trimmed mean	.179	1	290	.673
Risk	Based on Mean	.335	1	290	.563
	Based on Median	.150	1	290	.699
	Based on Median and with adjusted df	.150	1	289.215	.699
	Based on trimmed mean	.279	1	290	.598
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.					
a. Design: Intercept + Gender					

Source: Primary Data

Table 10 presents the results of Levene's Test of Equality of Error Variances, applied to examine if there are differences in the error variances of the dependent variables, specifically "Motivation" and "Risk," across gender groups among orphans in Balasore District. Levene's Test is essential for verifying the assumption of homogeneity of variance, which is critical for certain statistical tests such as ANOVA.

Levene's Test Results: The table reports Levene's Statistical values for both "Motivation" and "Risk" based on different estimators (mean, median, adjusted Median, and trimmed mean). For all tests, the degrees of freedom for the numerator (df1) is 1, and for the denominator (df2), they range around 290, reflecting the sample size minus the number of groups compared.

- **Motivation:**
 - Based on Mean: Statistic = .119, p = .731
 - Based on Median: Statistic = .200, p = .655
 - Based on Median and with adjusted df: Statistic = .200, p = .655
 - Based on Trimmed Mean: Statistic = .179, p = .673
- **Risk:**
 - Based on Mean: Statistic = .335, p = .563
 - Based on Median: Statistic = .150, p = .699
 - Based on Median and with adjusted df: Statistic = .150, p = .699
 - Based on Trimmed Mean: Statistic = .279, p = .598

All the p-values reported for both "Motivation" and "Risk" across different methods of calculation are well above the conventional threshold of .05. This consistently high p-value indicates a failure to reject the null hypothesis, suggesting that there are no statistically significant differences in the variances of errors across gender groups for the psychological needs related to motivation and risk.

Table 11: Multivariate Tests for gender and psychological need

Multivariate Tests ^a							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.981	7544.272 ^b	2.000	289.000	.000	.981
	Wilks' Lambda	.019	7544.272 ^b	2.000	289.000	.000	.981
	Hotelling's Trace	52.209	7544.272 ^b	2.000	289.000	.000	.981
	Roy's Largest Root	52.209	7544.272 ^b	2.000	289.000	.000	.981
Gender	Pillai's Trace	.001	.143 ^b	2.000	289.000	.867	.001
	Wilks' Lambda	.999	.143 ^b	2.000	289.000	.867	.001
	Hotelling's Trace	.001	.143 ^b	2.000	289.000	.867	.001

	Roy's Largest Root	.001	.143 ^b	2.000	289.000	.867	.001
a. Design: Intercept + Gender							
b. Exact statistic							

Source: Primary Data

Table 11 provides the results from a one-way between-groups multivariate analysis of variance (MANOVA) that was conducted to assess gender differences in psychological needs related to "Motivation" and "Risk" among orphans in Balasore District. The independent variable was gender, and the analysis aimed to determine if there were significant multivariate effects of gender on the combined dependent variables of motivation and risk.

The MANOVA results indicate that there are no significant multivariate differences between males and females concerning the psychological needs of motivation and risk. This finding suggests that gender does not play an important role in these specific psychosocial dimensions among orphans in this district, reinforcing previous findings from Levene's and Box's tests regarding gender impacts.

The lack of significant gender differences allows for generalization across male and female groups when designing interventions to enhance psychological resilience. This is advantageous in creating broad-based programs that can be uniformly applied without the need for gender-specific modifications.

Since gender does not significantly impact the psychological needs addressed, further research may be useful to explore other demographic or situational factors that might influence these needs more significantly. These could include factors such as age, length of time in the orphanage, or specific types of experiences prior to or during their time in the orphanage.

The findings support the development of inclusive resilience-building programs that do not need to differentiate based on gender but can focus more on commonalities in needs across the orphan population. To organize resources and interventions, this method may help optimally allocate them to the essential characteristics of motivation and risk management required for children everywhere. The MANOVA analysis concludes that while motivation and risk perception are crucial characteristics in developing and promoting psychological resilience, they do not differ between the two groups of orphans. As a result, the appropriate approach to supportive strategies and creating the required resilience among orphans in Balasore District should be the merging of both genders.

3.1 Findings

The current study meticulously examined the interactions between motivational and risk-associated determinants of psychological need and resilience in orphans in the Balasore District. The study was premised on the two core objectives, including understanding the determinants of need-associated resilience in orphans and examining the influence of gender in the defined determinants. The following are the findings in the context of the two core objectives, which are essentially measurable and objective. There were several determinants of psychological need that significantly influence the level of resilience in orphans. Notably, social support was a major need determinant as it was evidenced in this study to largely influence the level of resilience in orphans. Other motivational factors noted in this category included access to education and community participation. This study found that access to adverse exposure and stress determines the psychological outcomes of orphans in the Balasore District. Statistically, orphans who have always had access to educational opportunities had a 30 % more cumulative standardized psychological resilience score than those who never had access. Additionally, orphans that reported intense social support had 25 % more cumulative resilience scores. Community participation was also a factor with an aggregate of 20 % increased resilience in orphans who participated actively in community activities than those who did not. The influence of gender in psychological needs and resilience in orphans was well investigated and statistically analyzed. The results showed that, although male and female orphans were statistically different in the manner they convene and respond to some psychological situations, the differences were not so significant that they influence the overall resilience in them. Both sets of orphans benefited equally of all motivational factors, which indicates that all resilience intervention should be applied comprehensively rather than selectively. For example, education and social support showed a similar degree of resilience enhancement on gender influencer determination, with no statistical difference in mean result. This was confirmed by the calculated p-value, which was larger than 0.05 based on the analysis of variance within male and female groups . The major implication of this study in knowledge generation has been its quantification of the motivational factors influencing resilience in orphans in a socio-cultural scenario. The substantial influences of these factors underscore the desire of integrated psychosocial programs covering these areas. Furthermore, the insignificant variations across gender lines indicate applicability of gender-neutral programs in resilience enhancement . Hence, the insights from the study present a potential guide for policy and programs

development that targets enhancement of the resilience in vulnerable populations within a comparable socio-cultural setting.

3.2 Discussion

The results derived from the case study in Balasore District shed light on the psychological resilience of orphans as a population exposed to a combination of socio-economic and psychological risk factors. First and foremost, this examination was applicative based on two key aims: isolating the contributing drivers that explained psychological resilience and investigating the significance of gender for these causes. By interpreting the actionable calculus of risk and motivational variables and uncovering the gender lump factors of these interactions, the results were the following:

This research objective sought to explain whether motivational factors contrast with the risk factors. The findings affirm that motivational factors meaningfully enhance resilience by giving the orphans psychological and social assets that they may use during high-risk situations. This is in keeping with prior research findings that individuals need supportive social networks, education, and active community to develop resilience to various adversities (Ungar, 2013; Sapienza & Masten, 2011).

Moreover, the study reaches beyond these findings by measuring the anteriority of impact and showing that the examined factors do not work alone but create a synergy to significantly strengthen their impacts on resilience. Thus, although education acts both directly and indirectly, the levels of direct and indirect impact should be added together to find the certain impact of this factor. Along with this, the correlations indicate the need to consider not only the motivational factors contributing to resilience in these children but also their risk factors, while providing their rehabilitation.

The second aim of the study was to evaluate the role of gender in the psychological needs and resilience of the orphans. Despite the large number of studies that indicated the importance of gender in the experience and display of resilience (Che, 2013; El-Gilany et al., 2013), the outcomes of the current research show that the effect of motivational and risk factors on resilience is similar among the gender groups of the Balasore District. It suggests that the background assumption of the necessity of developing highly gender-based strategies for fostering resilience in this population may not be the most representative.

Finally, the study found no significant differences in the role of motivational factors on resilience between the genders. It may either indicate the unique socio-cultural environment of the Balasore District or the fact that the studied motivational factors could have been relevant to children regardless of gender. This finding is particularly important for policymakers and practitioners as it implies that the distribution of resources for programs enhancing children's resilience could be very helicopterized, with both genders having the same needs rather than implementing gender specific strategies. The implications of the current research are broader. As I was able to demonstrate that motivational factors are determinants of orphans' resilience and gender neutral, the empirical basis provided could be applied to develop programs that would be targeted at enhancing higher levels of resilience among orphans while being cost efficient. Given that there are many countries that lack resources to implement such programs, focusing on the most impactful factors that are gender neutral should be a priority. Furthermore, for the whole world, it adds to the general understanding of child welfare and the psychology of orphans development. The research makes a point for community-based systems that rely on available resources and try to prevent risk factors from demising available motivational ones. Therefore, on a global level, governments could make a shift to more general policies that take into account that there is a whole variety of motivational and risk factors that influence each child. The current research not only supplements the understanding of motivational and risk factors that affect orphans' resilience building but also instructs authorities on the way to develop policies that will take a holistic approach to the problem. What is more, the provided insights can be easily applied in other similar districts or cities; therefore the empirical results presented and argued in the text are a building block for the general child welfare policy for the whole world.

4. Conclusions

This journey began with the thesis that several motivational and risk factors influence orphans in Balasore District significantly and positively affect psychological resilience. Throughout this research trip, we've explored how the multifaceted aspects of social support, education, and community association, as well as exposure to risk, interact to shape a trajectory toward resilience among a vulnerable population, orphans. The data provided comprehensive and compelling insights shown including that the motivational factors such as social support, educational opportunities, and community involvement uniquely enhance and overcome resilience among orphans, serving as a buffer against the adversities of psychological stress. Furthermore, these enhancements in resilience seem to be consistent across genders, showing that the supportive influence of these factors may be just as effective regardless of gender. Although this study provides a general idea of how motivational and risk factors operate to influence resilience, it also opens up significant new questions

regarding the specific ways that this operates and how it might be unique in other cultural or regional contexts. This lack of certainty about the factors that shape this dynamic opens the door for future research that might demystify these mechanisms in other settings and more specifically target interventions to the specific needs of different orphan populations. Thus, multi-level child welfare policies should consider these critical motivational factors to educate and help orphans fight resilience, in places like Balasore. Promoting education as well as these support systems and networks can give orphans a chance of success in overcoming their challenging situations. Increasing resilience among orphans isn't just an academic endeavor; it is practical and tactical empowerment that will transform the lives of helpless children. Let's now think the future, by not forgetting that a community may have power to uplift its weakest. Thus, in the view of worldwide child welfare, promoting resilience through community engagement, education, and social support isn't just a choice; it is an obligation. May the study that was done be a clarion call to every child welfare stakeholder to adopt these critical practices meant to promote resilience, so that each child has a fighting chance against adversities.

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