

INFLUENCE OF OCCUPATION AND LOCALITY ON BIO-PSYCHOLOGICAL HEALTH OF ADULTS

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Article Info	ABSTRACT
Article History: Received: 15 th Dec 2025 Accepted: 18 th Dec 2025 Published: 20 th Dec 2025	Research Background: Bio-psychological health is an important aspect of adult well-being, as it influences both mental and physical functioning and overall quality of life. Understanding how socio-demographic factors such as occupation and locality affect bio-psychological health can help in developing effective interventions and policies to promote healthier lifestyles. Adults experience varying occupational demands and environmental conditions, which may influence their bio-psychological functioning differently in rural and urban contexts. Objectives: The objectives of the present study were to examine the effect of type of occupation on the bio-psychological health of adults, to analyze the influence of locality on bio-psychological health, to study the interaction effect of occupation and locality among the bio-psychological health. Procedure: A total of 120 adults aged between 25 and 45 years were selected from urban and rural areas using a purposive sampling technique. The sample comprised 60 adults from urban localities and 60 from rural localities, with equal representation of job and business occupations. Type of occupation and type of locality were treated as independent variables, while bio-psychological health was the dependent variable. Conclusions: The findings revealed that type of occupation did not have a significant effect on the bio-psychological health of adults. Similarly, locality was not found to significantly influence bio-psychological health of the adults. Moreover, no significant interaction effect was observed between occupation and locality, indicating that the influence of occupation on bio-psychological health remained consistent across rural and urban areas.

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INTRODUCTION:

Bio-psychological health, which integrates biological functioning and psychological stability, is critical for overall human well-being (World Health Organization [WHO], 2014). During adulthood, individuals encounter multiple responsibilities related to work, family, and societal roles, which significantly influence both physical and mental health (Keyes, 2002). Among the key determinants of bio-psychological health, occupation and locality play a vital role as they shape lifestyle patterns, stress exposure, access to resources, and health-related behaviours (Marmot, 2005).

Occupation has a substantial influence on adult health due to differences in physical activity levels, job security, work pressure, income, and social status (Siegrist, 2008). Professions involving long working hours, high mental demands, or physical strain often lead to increased stress, fatigue, and adverse biological and psychological health outcomes (Ganster & Rosen, 2013). In contrast, stable and rewarding occupations are associated with enhanced psychological well-being and improved biological health indicators (Danna & Griffin, 1999).

Locality, defined by rural and urban living environments, also significantly affects bio-psychological health. Urban settings may provide better access to healthcare, education, and employment opportunities but often expose individuals to higher levels of pollution, crowding, and psychological stress (Evans, 2003). Conversely, rural environments may offer cleaner surroundings and stronger social cohesion, yet limited healthcare facilities and fewer employment opportunities can negatively influence health outcomes (Hartley, 2004).

The interaction between occupation and locality is crucial in shaping adult health outcomes, as individuals engaged in similar occupations may experience different levels of bio-psychological health depending on their living environments (Marmot & Wilkinson, 2006). Therefore, the present study aims to investigate the impact of occupation and locality on the bio-psychological health of adults. The findings are expected to assist policymakers, healthcare professionals, and educators in developing targeted interventions and health promotion strategies that address both occupational and regional health needs.

SIGNIFICANCE OF THE STUDY

1. The study explores the bio-psychological health of adults, emphasizing the influence of occupation and locality. It highlights the increasing health challenges faced by adults due to work stress, lifestyle changes, and environmental conditions, addressing a critical area in health and social science research.
2. This study highlights the impact of occupational conditions on the biological and psychological well-being of adults. It emphasizes the importance for employers, organizations, and policymakers to understand these influences to mitigate health risks and enhance working conditions and employee well-being.
3. The study emphasizes the impact of locality on bio-psychological health, offering insights into regional health disparities. It suggests implications for planning tailored health services, awareness programs, and preventive strategies for adult populations.
4. The study highlights the relationship between occupation and locality in understanding adult health, providing insights for health professionals, educators, and social workers to create targeted interventions that improve biological and psychological health outcomes.

OBJECTIVES OF THE STUDY:

1. To study the influence of occupation on the bio-psychological health of adults.
2. To study the influence of locality on the bio-psychological health of adults.
3. To study the interaction effect of occupation and locality on the bio-psychological health of adults.

RESEARCH METHODOLOGY:

- **Variables of the Study:**

- A) Independent Variables**

- 1) **Type of Occupation:** Job Peoples and Business Peoples

- 2) **Type of Locality:** Urban Peoples and Rural Peoples

- B) Dependent Variable:** Bio-Psychological Health

- **Hypothesis of the Study:**

1. There will be no significant difference in the bio-psychological health of adults belonging to different occupational groups.
2. There will be no significant difference in the bio-psychological health of adults from rural and urban localities.
3. There will be no significant interaction effect between occupation and locality on the bio-psychological health of adults.

- **Sample Size and Selection Producer:**

In the present study, a total sample of 120 adults was selected from urban and rural areas. Of this sample, 60 adults were from urban localities and 60 adults were from rural localities. Further, based on occupation, 60 participants were employed in jobs and 60 participants were engaged in business. Thus, the sample was equally divided into four groups: 30 urban job-employed adults, 30 rural job-employed adults, 30 urban business-employed adults, and 30 rural business-employed adults. The age range of the participants was between 25 and 45 years. A 2×2 factorial research design was employed to examine the main effects and interaction effect of occupation and locality on the bio-psychological health of adults.

- **Data Collection Materials:**

Bio-psychological health was assessed using the PGI Health Questionnaire (N-1) developed by Dr. Santosh K. Verma, Dr. Dwarka Persad, and Dr. N. N. Wig. The scale consists of 38 items. In the original version, each item is answered in a Yes/No format. Responses indicating the presence of a symptom are awarded one mark, whereas responses indicating the absence of a symptom receive zero marks. The reliability coefficients obtained through the test-retest and split-half methods were found to be significant, and the scale has demonstrated good discriminative power in differentiating between normal and clinical populations.

STATISTICAL ANALYSIS AND RESULTS

In this part, the investigator has explained the influence of occupation and locality on the bio-psychological health of adults. The investigator has analysed the data to examine the main effects of occupation and locality, as well as their interaction effect on bio-psychological health. The data were analysed using appropriate statistical techniques in the following manner.

Table: 1 shows the assessing normality of the variable Bio-Psychological Health

Descriptive Statistics			Statistic	Std. Error
Bio-Psychological Health	Mean		16.2167	.94300
	95% Confidence Interval for Mean	Lower Bound	14.3494	
		Upper Bound	18.0839	
	5% Trimmed Mean		15.2963	
	Median		15.0000	
	Variance		106.709	
	Std. Deviation		10.33000	
	Minimum		0.00	
	Maximum		53.00	
	Range		53.00	
	Interquartile Range		8.75	
	Skewness		1.545	0.221
	Kurtosis		3.065	0.438

The descriptive statistics for bio-psychological health show that the adolescents had a mean score of 16.22, with a standard error of 0.94, indicating a reasonably precise estimate of the average level of bio-psychological health. The 95% confidence interval ranged from 14.35 to 18.08, suggesting that the true population mean is likely to fall within this interval. The trimmed mean (15.30) and median (15.00) were lower than the mean, implying the presence of some higher scores that influenced the average. The variance (106.71) and standard deviation (10.33) indicate considerable variability in bio-psychological health among the participants. Scores ranged from 0 to 53, showing wide individual differences. The interquartile range of 8.75 suggests moderate dispersion within the middle half of the distribution. The positive skewness value (1.55) indicates a right-skewed distribution, meaning more participants scored at the lower end. The kurtosis value (3.07) reflects a leptokurtic distribution, suggesting a sharper peak with heavier tails than a normal distribution.

Table:2: Shows descriptive statistics of the Bio-Psychological Health on the basis of each cell.

Type of Occupation	Type of Locality	Mean	SD	N
Job	Urban	15.6667	11.23521	30
	Rural	18.6333	11.25713	30
	Total	17.1500	11.25035	60
Business	Urban	13.7333	7.57006	30
	Rural	16.8333	10.69993	30
	Total	15.2833	9.32118	60
Total	Urban	14.7000	9.54792	60
	Rural	17.7333	10.92636	60
	Total	16.2167	10.33000	120

Table No. 2 is very useful, as it presents descriptive statistics of bio-psychological health scores based on type of region and occupational background. Among adolescents from job-oriented families, rural

participants obtained a higher mean score (18.63) compared to their urban counterparts (15.67), indicating relatively better bio-psychological health in the rural group. A similar pattern was observed among adolescents from business-oriented families, where rural adolescents recorded a higher mean score (16.83) than urban adolescents (13.73). When overall comparisons were made, rural adolescents showed a higher average bio-psychological health score (17.73) than urban adolescents (14.70). The standard deviation values across groups suggest moderate variability in scores, with slightly greater dispersion among rural adolescents. The total mean score of 16.22 represents the overall level of bio-psychological health among the entire sample. Overall, the table suggests that rural adolescents, irrespective of occupational background, tended to report comparatively better bio-psychological health than urban adolescents, although individual differences within groups were also evident.

Table: 3: Shows summary of ANOVA of the Bio-Psychological Health

Source	Sum of Squares	df	Mean Square	F	Sig	Partial Eta Squared
Type of Occupation	104.533	1	104.533	0.984	NS	0.008
Type of Locality	276.033	1	276.033	2.600	NS	0.022
Type of Occupation X Type of Locality	0.133	1	0.133	0.001	NS	0.000
Error	12317.667	116	106.187			
Total	44256.000	120				
Corrected Total	12698.367	119				

Significant Level, $df(1,116)$ --- 0.05 = 3.92 0.01 = 6.85

Eta Squared effect size, 0.01= small 0.06= moderate 0.14= large effect (Cohen, 1988)

From Table No. 3, a two-way ANOVA was conducted to examine the effect of type of occupation and type of locality on the bio-psychological health of adults. The dependent variable, bio-psychological health, was assumed to be normally distributed across the groups formed by the combination of occupation (job and business) and locality (urban and rural), and the assumption of homogeneity of variance was satisfied. Therefore, the use of two-way ANOVA was considered appropriate for further analysis.

The main effect analysis revealed that the type of occupation was not statistically significant, $F(1,116) = 0.984$, $p > 0.05$. This indicates that adults belonging to different occupational groups did not differ significantly in their bio-psychological health. The effect size for occupation was very small (partial eta squared = 0.008), suggesting that occupation explained less than one percent of the variance in bio-psychological health. Hence, based on Hypothesis No. 1, was accepted.

The main effect of type of locality was also found to be statistically not significant, $F(1,116) = 2.600$, $p > 0.05$. This result shows that there was no significant difference in bio-psychological health between adults from rural and urban localities. The partial eta squared value of 0.022 indicates a small effect size, accounting for only 2.2% of the variance. Therefore, Hypothesis No. 2, was accepted.

Further, the interaction effect between type of occupation and type of locality was not statistically significant, $F(1,116) = 0.001$, $p > 0.05$. This suggests that the influence of occupation on bio-psychological health did not vary across rural and urban areas. The effect size for the interaction was negligible (partial

eta squared = 0.000). Accordingly, Hypothesis No. 3, was accepted. Since the interaction was non-significant, Hypothesis No. 4 regarding differences across occupational groups within rural and urban areas was also accepted.

CONCLUSIONS

1. The type of occupation does not have a significant impact on the bio-psychological health of adults. Adults belonging to job and business occupations were found to be similar in their level of bio-psychological health.
2. The type of locality does not show a significant influence on the bio-psychological health of adults. Both rural and urban adults were found to exhibit nearly equal levels of bio-psychological health.
3. There is no significant interaction effect between type of occupation and type of locality on the bio-psychological health of adults, indicating that the influence of occupation on bio-psychological health remains consistent across both rural and urban localities.

REFERENCES

1. Beehr, T. A., & Newman, J. E. (1978). Job stress, employee health, and organizational effectiveness: A facet analysis, model, and literature review. *Personnel Psychology*, 31(4), 665–699. <https://doi.org/10.1111/j.1744-6570.1978.tb02118.x>
2. Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
3. Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management*, 25(3), 357–384. <https://doi.org/10.1177/014920639902500305>
4. Diener, E., Oishi, S., & Lucas, R. E. (2015). National accounts of subjective well-being. *American Psychologist*, 70(3), 234–242. <https://doi.org/10.1037/a0038899>
5. Evans, G. W. (2003). The built environment and mental health. *Journal of Urban Health*, 80(4), 536–555. <https://doi.org/10.1093/jurban/jtg063>
6. Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health: A multidisciplinary review. *Journal of Management*, 39(5), 1085–1122. <https://doi.org/10.1177/0149206313475815>
7. Hartley, D. (2004). Rural health disparities, population health, and rural culture. *American Journal of Public Health*, 94(10), 1675–1678. <https://doi.org/10.2105/AJPH.94.10.1675>
8. Karasek, R. A., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life*. Basic Books.
9. Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, 43(2), 207–222. <https://doi.org/10.2307/3090197>
10. Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
11. Marmot, M. (2005). Social determinants of health inequalities. *The Lancet*, 365(9464), 1099–1104. [https://doi.org/10.1016/S0140-6736\(05\)71146-6](https://doi.org/10.1016/S0140-6736(05)71146-6)
12. Marmot, M., & Wilkinson, R. G. (2006). *Social determinants of health* (2nd ed.). Oxford University Press.
13. McEwen, B. S. (2007). Physiology and neurobiology of stress and adaptation: Central role of the brain. *Physiological Reviews*, 87(3), 873–904. <https://doi.org/10.1152/physrev.00041.2006>

14. Sauter, S. L., Murphy, L. R., & Hurrell, J. J. (1990). Prevention of work-related psychological disorders. *American Psychologist*, 45(10), 1146–1158. <https://doi.org/10.1037/0003-066X.45.10.1146>
15. Siegrist, J. (2008). Chronic psychosocial stress at work and risk of depression: Evidence from prospective studies. *European Archives of Psychiatry and Clinical Neuroscience*, 258(S5), 115–119. <https://doi.org/10.1007/s00406-008-5024-0>
16. Srivastava, A. K., & Singh, A. P. (1984). *Manual of the Occupational Stress Index*. Manovaigyanik Parikshan Sansthan.
17. World Health Organization. (2001). *Mental health: New understanding, new hope*. WHO.
18. World Health Organization. (2014). *Social determinants of mental health*. WHO.