

Hypertension and Stress Level Among Adult IDP Women and Non-IDP Women in Moirang, Manipur

MAIKAM RITIKA DEVI[†], THOUNAOJAM SARJU CHANU[‡] &
HAOBIJAM VOKENDRO SINGH[†]

Department of Anthropology, Manipur University, Canchipur 795003, Imphal

E-mail: sarju.phd.anthro@manipuruniv.ac.in

<https://doi.org/10.47509/SAA.2026.v26i01.05>

KEYWORDS: Hypertension. Stress. IDP (Internally Displaced Persons). BMI.

ABSTRACT: Manipur is a state in Northeast India known for its rich culture and traditions, experiencing a violent ethnic conflict between two communities, resulting in the displacement of thousands of people and leading to the establishment of Internally Displaced Persons (IDP) camps. So, this study aims to compare the levels of stress and blood pressure between adult Meitei women in IDP camps and those living in a non-IDP settlement at Moirang. A cross-sectional design was employed, involving a total of 300 participants (150 IDP and 150 non-IDP women) aged 18-60 years. Normal blood pressure was slightly more common in IDPs (38.67%) than in non-IDPs (34%), while Pre-hypertension and Stage I hypertension were higher in non-IDPs, while Stage II hypertension was more prevalent in IDPs (10.67% vs. 5.33%). However, these differences were not statistically significant (X^2 4.64, $p = 0.2$).

In contrast, 73.33% of IDP women experienced moderate stress, 26% experienced high stress, and only 0.67% experienced low stress. Meanwhile, 58% of non-IDP Women experienced low stress, 42% experienced moderate stress, and none of them experienced high stress. Overall, 57.67% of all women experienced moderate stress, 29.33% low stress, and 13% high stress. The X^2 135.81 and $p=0$ show a highly significant difference, indicating that IDP women perceived significantly higher stress levels than non-IDP women. The findings indicate that while displacement does not significantly impact blood pressure or BMI among women in the study, it substantially affects stress levels, highlighting the mental health burden faced by displaced women. The study highlights the concerns of stress levels among internally displaced populations.

INTRODUCTION

Hypertension, often referred to as the silent killer, is a medical condition in which the force of blood flow through blood vessels is persistently elevated. According to the World Health Organisation (WHO), hypertension is defined as systolic blood pressure greater than or equal to 140 mmHg and/or diastolic blood pressure greater than or equal to 90 mmHg.

Hypertension is an emerging global health concern and a leading risk factor for cardiovascular disease. An estimated 1.4 billion adults aged 30-70 years globally had hypertension, which represents 33% of the total population in this particular age range (WHO, 2025). If hypertension is not diagnosed, it can lead to serious health problems such as an Aneurysm (a bulge in a blood vessel), Stroke, Heart failure, Heart attack, Loss of vision (blindness), Poor blood flow in the legs or arms (Peripheral Arterial Disease), and Memory and understanding issues. It

[†] M.Sc student

[‡] Research Scholar, corresponding author

[†] Professor

can be treated by modifying lifestyle changes like exercising and eating a healthy diet, and Medicines to lower blood pressure.

Stress is defined as a state of mental tension caused by difficult situations. It is a natural human response that brings about challenges and worries in our lives (WHO, 2023). Stress is commonly used in daily life. It is a feeling of emotional or physical tension; it can undermine a person's mental and physical health when experienced excessively. Higher stress levels can lead to high blood pressure, especially if they cause unhealthy habits like smoking, drinking, or eating junk food. Stress can be caused by several factors such as health issues, unstable financial crisis, social isolation, war or violence, etc. Most of the time, stress may lead to suicidal thoughts among the displaced population.

Manipur is a state in Northeast India known for its rich culture and traditions, experiencing a violent ethnic conflict between two communities since May 3, 2023, resulting in the displacement of thousands of people and leading to the establishment of Internally Displaced Persons (IDP) Camps. Nearly 3 years since the violence broke out, many families face significant challenges such as unstable living conditions, lack of health care facilities, and emotional support. Due to a lack of physical and emotional support, many individuals, irrespective of gender and age, have higher stress levels, leading to psychological distress. While stress and hypertension are widely recognized health issues, there is limited research on how women in conflict zones experience these. So, the present study aims.

1. To measure the level of stress among adult Meitei women in IDP and non-IDP living at Moirang.
2. To assess the blood pressure status (hypertension) of adult Meitei women in both groups.
3. To compare the levels of stress and blood pressure between adult Meitei women in IDP camps and those in non-IDP settlements at Moirang.

By adjusting strategies to address such a global crisis, public health initiatives can promote more

effective preventive measures, enhance stress coping mechanisms, and improve overall health outcomes among displaced populations in Manipur.

MATERIAL & METHODS

Study Design

A study was conducted on adult women aged 18-60 years residing in IDP camps and non-IDP women in Moirang, Manipur, from 5th March to 14th March 2025. A total of 300 women (150 IDP and 150 Non-IDP) were recruited for the study. Despite several challenges, including limited time, the data collection was completed within the specified timeframe. Relief camps in Moirang were selected using a simple random sampling method. Before the commencement of data collection, the objectives, procedures, and details of the study were clearly explained to both IDP and non-IDP participants. Informed consent was obtained from all participants. After obtaining consent, blood pressure and anthropometric measurements were recorded, followed by an assessment of stress levels using the standardized Perceived Stress Scale (PSS).

Anthropometric Measurements

Body Mass Index

Body weight and height were recorded. From this, Body Mass Index (BMI) is calculated by dividing a participant's body weight (in kilograms) by the square of their height (in meters). It was classified using the Asia-Pacific guidelines for adults.

The formula is $BMI = \text{weight (kg)} / \text{height in meters squared (m}^2\text{)}$.

TABLE 1
BMI classification for the WHO cut-off for Asian populations

BMI Category	WHO cut-off
Underweight	<18.5
Normal	18.5-22.9
Overweight	23-24.9
Obese I	25-29.9
Obese II	>30

Source: Girdhar, et al 2016 WHO Asian-BMI classification

Blood Pressure

Blood pressure was measured using a standard mercury sphygmomanometer in the sitting position on the right arm of the participants. The readings were recorded and classified according to the JNC 8 (The Eighth Joint National Committee) Classification of Blood Pressure.

TABLE 2
Classification of blood pressure

BP Classification	SBP (mmHg)	DBP (mmHg)
Normal	<120	<80
Pre-hypertension	120-139	80-89
Stage-I hypertension	140-159	90-99
Stage-II hypertension	>160	>100

Source: JNC 8 (Eighth Joint National Committee) 2024 Hypertension

Assessment of Stress Level

The stress level of individuals was assessed using the Perceived Stress Scale (PSS), a widely recognized psychological tool developed in 1983 to measure the degree to which situations in one's life are appraised as stressful. This scale comprises 10 questions that assess the frequency of stress-related thoughts and feelings over the past month. Respondents rated each item on a 5-point scale ranging from 0 (never) to 4 (very often). Four positively stated items (questions 4, 5, 7, and 8) were reverse-scored before calculating the total score. The final PSS score ranges from 0 to 40, with higher scores indicating a higher level of perceived stress. Scores are categorized as low (0–13), moderate (14–26), and high (27–40) stress levels.

Statistical Analysis

The collected data were systematically entered and organized using Microsoft Excel for subsequent analysis and documentation. The prevalence of blood pressure, BMI, and stress levels was calculated. Number, percentage, mean, minimum, maximum, SE, and SD of participants were shown; t-tests were used to compare the average stress scores, BMI, and blood pressure between IDP and non-IDP women. To check if there were any connections between different groups of data, chi-square tests were used.

If the p-value from any test was less than 0.05, it was considered statistically significant.

RESULTS

The highest number of respondents was from the 39–45 age group, with 36 IDP women (24%) and 34 non-IDP women (22.67%), totalling 70 women (23.33%). This indicates that most participants were middle-aged, followed by the 46–52 age group, with 32 IDPs (21.33%) and 27 non-IDPs (18%), totalling 59 women (19.67%). Next were the 32–38 groups, with 52 women (17.33%), including 27 IDPs (18%) and 25 non-IDP women (16.67%). The 53–60 age group comprised 50 women (16.67%), including 24 IDP women (16%) and 26 non-IDP women (17.33%). The 25–31 groups included 41 women (13.67%), of whom 20 (11.33%) were IDP women and 21 (14%) were Non-IDP women. The youngest age group, 18–24, had the fewest participants, with only 28 women (9.33%), including 11 (7.33%) IDP and 17 (11.33%) non-IDP women. So, the majority of women in the study were in the 39–52 age range, while participation from younger age groups was relatively lower (Table 3).

TABLE 3
Age-wise distribution of IDP women and non-IDP women

Age range in years	IDP Women		Non-IDP Women		Total	
	N	%	N	%	N	%
18-24	11	7.33	17	11.33	28	9.33
25-31	20	13.33	21	14.00	41	13.67
32-38	27	18.00	25	16.67	52	17.33
39-45	36	24.00	34	22.67	70	23.33
46-52	32	21.33	27	18.00	59	19.67
53-60	24	16.00	26	17.33	50	16.67
Total	150	100.17	150	100	300	100

The distribution of perceived stress levels among IDP women and non-IDP women was different across different age groups. Moderate and high stress levels were experienced more by IDP women than their counterparts. Among IDP women, low stress levels are almost absent, with only one participant in the 32-38 age group. In contrast, low and moderate stresses were predominantly experienced by non-IDP women, with no cases of

high stress levels. High stress level is particularly concentrated among IDP women in the 32-38 years (36.37%), 39-45 years (22.45%), and 46-52 years (24.49%) age groups, indicating that middle-aged women experience higher psychological stress than other age groups. However, low stress is more experienced by the 39-45 years group (25.29%), followed by the 46-52 years group (24.14%) among Non-IDP women. It is observed that moderate stress is evenly distributed across all age groups of Non-IDP women. The findings indicate that women in IDP camps experienced higher perceived stress levels than their counterparts, irrespective of age, highlighting the mental health toll of displacement and unstable living conditions. Moreover, indicates that women in their early to mid-30s are the most vulnerable to psychological stress among the displaced population. In contrast, among non-IDP women, low stress levels are maintained mainly across different age groups. (Table 4)

Table 5 shows the distribution of blood pressure categories among the studied population. The overall prevalence of normal blood pressure is 36.33%, pre-hypertension is 35.67%, Stage I hypertension is 20% and Stage II hypertension is 8%. IDP women are more prevalent in the stage II hypertension category, i.e., 10.67% than non-IDP women with 5.33%. In contrast, stage I hypertension is more common among non-IDP Women (22.67%) than IDP Women (17.33%). Pre-hypertension is more prevalent among non-IDP women (38%) than their counterparts, while normal blood pressure was observed more predominant among IDP women (38.67%) than non-IDP Women (34%). The distribution shows some variation in blood pressure among both groups. However, the chi-square test reveals no statistically significant difference in blood pressure between the two groups. It also highlights that displacement is not significantly associated with blood pressure in the present study.

TABLE 4

Age-wise distribution of perceived stress scale among IDP women and non-IDP women

Age group in years	IDP WOMEN (Stress Level)								NON-IDP WOMEN (Stress Level)							
	Low		Moderate		High		Total		Low		Moderate		High		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
18-24	0	0	10	10	1	2.04	11	7.33	9	10.34	8	12.70	0	0	17	11.33
25-31	0	0	17	17	3	6.12	20	13.33	7	8.05	14	22.22	0	0	21	14
32-38	1	100	8	8	18	36.73	27	18	13	14.94	12	19.05	0	0	25	16.67
39-45	0	0	25	25	11	22.45	36	24	22	25.29	12	19.05	0	0	34	22.67
46-52	0	0	20	20	12	24.49	32	21.33	21	24.14	6	9.52	0	0	27	18
53-60	0	0	20	20	4	8.16	24	16	15	17.24	11	17.46	0	0	26	17.33
Total	1	100	100	100	49	100	150	100	87	100	63	100	0	0	150	100

TABLE 5

Distribution of blood pressure classification of IDP women and non-IDP women

Blood Pressure category	IDP Women		Non-IDP Women		Total		Chi-Square(X ²)
	N	%	N	%	N	%	
Normal	58	38.67	51	34	109	36.33	4.64 (p-value=0.2)
Pre-Hypertension	50	33.33	57	38	107	35.67	
Stage I Hypertension	26	17.33	34	22.67	60	20	
Stage II Hypertension	16	10.67	8	5.33	24	8	
Total	150	100	150	100	300	100	

Table 6 illustrates the relationship between stress levels and different blood pressure categories among the study population. 77.59% IDP women with normal blood pressure had moderate stress, 22.41% had high stress, and no cases of low stress level. 80.77 % IDP women with stage I hypertension had moderate stress and 19.23% had high stress, with no cases of low stress scores. In the pre-hypertension group, 58% reported moderate stress, 40% reported high stress, and only 2% reported low stress. Whereas in the Stage II hypertension group, a large majority (93.75%) had moderate stress and 6.25% had high stress. It is observed that a moderate stress level is most common across all blood pressure categories, with 73.33%. The chi-square test is not statistically significant, but it is close, suggesting a possible connection between stress and blood pressure.

Table 7 presents the distribution of blood pressure classifications in relation to stress levels among non-IDP women. 58% of the women with different blood pressure categories had low stress levels, followed by 42% with moderate stress, with no cases of high stress. Among women with normal blood pressure, 49.0% experienced low stress and 50.9% had moderate stress. In the pre-hypertension group, 66.66% had low stress, while 33.33% reported moderate stress. For Stage I hypertension, 55.88% had low stress and 44.11% had moderate stress. In the Stage II hypertension group, 62.5% of the women experienced low stress, and 37.5% had moderate stress. Notably, none of the non-IDP women reported high levels of perceived stress in any blood pressure category. The chi-square test indicates that there is no statistically significant relationship between stress levels and blood pressure categories among non-IDP women.

Table 8 presents the Body Mass Index (BMI) classification of both IDP and non-IDP women. Overall, obese I was the most common BMI category among both groups, affecting 41% of the total population. Among the IDP women, the majority (44%) were obese I, followed by 22.67% with normal BMI, 20% were overweight, and 12.67% were obese II. Only 0.67% of IDP women were underweight. Similarly, among non-IDP women, the highest proportion (38%) were also obese I, followed by 23.33% with normal BMI, 21.33% were overweight, and 15.33% were obese II, and only 1.33% of non-IDP women were underweight. The proportion of women in the standard and overweight categories was relatively similar in both groups. The chi-square value is 2.11, and the p-value is 0.71, indicating that there is no significant difference in BMI distribution between IDP and non-IDP women.

TABLE 6

Distribution of blood pressure classification in relation to stress among IDP women

Stress Scale	Normal		Pre-Hypertension		Stage I hypertension		Stage II hypertension		Total		Chi square (X ²)
	N	%	N	%	N	%	N	%	N	%	
Low	0	0	1	2	0	0	0	0	1	0.67	11.76 P=0.06
Moderate	45	77.59	28	58	21	80.77	15	93.75	110	73.33	
High	13	22.41	20	40	5	19.23	1	6.25	39	26	
Total	58	100	50	100	26	100	16	100	150	100	

TABLE 7

Distribution of blood pressure classification in relation to stress among non IDP women

Stress Scale	Normal		Pre-hypertension		Stage I hypertension		Stage II hypertension		Total		Chi-square (X ²)
	N	%	N	%	N	%	N	%	N	%	
Low	25	49.01	38	66.66	19	55.88	5	62.5	87	58	3.575 P=0.311
Moderate	26	50.98	19	33.33	15	44.11	3	37.5	63	42	
High	0	0	0	0	0	0	0	0	0	0	
Total	51	100	57	100	34	100	8	100	150	100	

TABLE 8
Distribution of BMI classification of IDP women and non-IDP women

BMI Classification	IDP Women		Non-IDP Women		Total		Chi-Square (X ²)
	N	%	N	%	N	%	
Underweight	1	0.67	3	2	4	1.33	2.11 P=0.71
Normal	34	22.67	35	23.33	69	23	
Overweight	30	20	32	21.33	62	20.67	
Obese I	66	44	57	38	123	41	
Obese II	19	12.67	23	15.33	42	14	
Total	150	100	150	100	300	100	

Overall, more than half of the total studied population, i.e., 57.67%, experienced moderate stress, followed by 29.33% experiencing low stress, and 13% suffered from high stress. Moderate stress is most commonly reported among IDP women (73.33%) compared to their counterparts. In contrast, low stress is more experienced by Non-IDP Women, with 58%, indicating that the majority of Non-IDP women experience low stress. However, among IDP Women, only 0.67% experience low stress. About one quarter of the total IDP women (26%) were reported to have high stress, while none of the non-IDP women reported high stress (Table 9).

Table 10 presents the descriptive statistics and independent t-test comparisons of anthropometric and physiological parameters and the status of perceived stress levels among IDP women and non-IDP women. The most striking finding is the significantly higher stress score among the IDP women, with a mean value of 25.81 ± 2.1 , compared to the Non-IDP women, with a mean value of 12.74 ± 0.46 . The narrower range of stress scores among IDPs indicates an elevated stress level, which is supported by the t-test result suggesting a significant difference in perceived stress levels between the two groups, indicating a strong association between

TABLE 9
Distribution of the perceived stress scale of IDP women and non-IDP women

Stress Scale	IDP Women		Non-IDP Women		Total		Chi-square (X ²)
	N	%	N	%	N	%	
Low	1	0.67	87	58	88	29.33	135.81* p-value=0
Moderate	110	73.33	63	42	173	57.67	
High	39	26	0	0	39	13	
Total	150	100	150	100	300	100	

TABLE 10
Descriptive statistics of anthropometric variables and status of perceived stress level of IDP women and non-IDP women

Parameters	Group	Mean and SE	SD	Minimum	Maximum	Range	t-test
Stress score	Non-IDPs	12.74 $\pm$ 0.46	5.68	2	26	24	-21.377 (p = 6.1E 57)
	IDPs	25.81 $\pm$ 2.1	4.21	17.36	38.63	21.27	
Systolic BP	Non-IDPs	125.02 $\pm$ 10.2	14.97	95	185	90	0.14 (p = 0.88)
	IDPs	124.75 $\pm$ 10.18	16.67	90	181	91	
	Non-IDPs	80.96 $\pm$ 6.61	10.4	60	116	56	
Diastolic BP	IDPs	82.31 $\pm$ 6.72	12.36	54	121	67	-1.02 (p=0.30)
BMI	Non-IDPs	25.79 $\pm$ 2.1	3.81	17	40.58	23.58	-0.029 (p = 0.976)
	IDPs	25.81 $\pm$ 2.10	4.21	17.36	38.63	21.27	

displacement and elevated stress levels. For Systolic blood pressure, the mean value and range are pretty similar between the two groups. The t-test value of 0.14 and a p-value of 0.88 indicate that the difference is not statistically significant. In terms of Diastolic blood pressure, non-IDP women show slightly lower mean value (80.96 ± 6.61) and range than IDP Women, with a mean value of 82.31 ± 6.72 ; however, the t-test value indicates no significant difference between the two groups. The BMIs between the two groups are almost similar, indicating similar nutritional and body composition status among the two groups. Overall, while displacement does not appear to significantly influence blood pressure or BMI among women of the two groups, it is strongly associated with elevated stress levels, which could have critical implications for the mental and overall health of displaced populations.

Table 11 shows the relationship between stress levels and suicidal thoughts among IDP Women. Suicidal thought was observed to be higher among those who have a high perceived stress level, with 69.23%. The chi-square value (6.275) and p-value

of 0.043 show a statistically significant association between suicidal thought and high perceived stress level. Findings suggest that higher perceived stress levels are strongly associated with a greater likelihood of suicidal thought among displaced women.

DISCUSSIONS

Firstly, the findings indicate that the majority of the women in the study were from the middle-aged groups, particularly those between 39 and 45 years of age, followed by the 46 to 52 age group. The youngest age group, 18–24 years, had the fewest participants. Notably, among the IDP women, perceived stress levels were found to be statistically higher compared to non-IDP women, irrespective of age. It was particularly concentrated among IDP women in the 32–38 years (36.37%), 39–45 years (22.45%), and 46–52 years (24.49%) age groups, indicating that middle-aged women experience higher psychological stress than other age groups. This highlights that displacement and unstable living conditions have a significant impact on psychological stress among middle-aged women.

TABLE 11

Distribution of stress levels in relation to suicidal thoughts of IDP women

Suicidal thought	Low stress		Moderate Stress		High perceived stress		Total		X ²
	N	%	N	%	N	%	N	%	
Yes	0	0	53	48.18	27	69.23	80	52.33	6.275* p-value=0.043
No	1	100	57	51.81	12	30.76	70	46.66	
Total	1	100	100	100	39	100	150	100	

Hu *et al.* (2015) reported that psychological stress was significantly linked with hypertension among community-dwelling individuals aged 40–60 years in China, with a 24.7% increased likelihood of hypertension among individuals experiencing stress, particularly among women. This may be due to hormonal changes, social or behavioural changes, or unstable living conditions. However, systolic and diastolic blood pressure, as well as BMI status, did not show a statistically significant difference between IDP women and non-IDP women. The most striking finding is the significantly higher stress score among IDP women, with a mean value of 25.81 ± 2.1 , compared to non-IDP women, with a mean value

of 12.74 ± 0.46 . The mean score for psychological distress was 29.51 (SD = 10.40), indicating a moderate to high level of distress among adolescents (Mayanglambam and Gautam, 2025). Suter *et al.* (1997) reported an inverse correlation between self-perceived stress and systolic blood pressure. A study shows an association between higher perceived stress and an increased risk of developing hypertension, with 38.2% of high stress leading to hypertension, while 30.6% of low stress experiences hypertension (Jackson Heart Study).

Similar findings were reported by Bhelkar *et al.* (2018) and Gupta and Gupta (2019). In contrast, Tanna and Khatri (2021) demonstrated a moderate

positive correlation between perceived stress and systolic blood pressure ($r = 0.47$), while a weak correlation was observed between perceived stress and diastolic blood pressure. Devi *et al.* (2018) reported a statistically nonsignificant association between stress and hypertension. A recent study by Rajkumari *et al.* (2024), conducted among IDPs residing in Imphal Valley, Manipur, shows that nearly two-thirds of the participants (65.8%) exhibit post-traumatic stress disorder (PTSD) symptoms. These findings underscore a high prevalence of psychological distress, suggesting that displaced populations face a significant burden on their psychological well-being due to ethnic violence. Poorer quality of life was reported among IDPs compared with the host community or returning refugees (Burns *et al.*, 2018).

The findings further highlight that women in the middle-aged group are more vulnerable to psychological stress among the displaced population, while non-IDP women maintain relatively stable stress levels across all age groups. Living in IDP camps was identified as the most significant predictor of depression, anxiety, and stress (Salihi *et al.*, 2022). This suggests that displacement has a substantial impact on individual psychological well-being. The correlation between blood pressure and stress among the two groups was statistically insignificant, suggesting that stress was not a significant factor in elevating blood pressure in the study population. This finding indicates the need for further research to understand the underlying mechanisms of elevated blood pressure among IDP women.

CONCLUSION

The present study demonstrated that women in the IDP Camp in Moirang, Manipur, have significantly higher prevalence of psychological health issues compared with their non-IDP counterparts. The majority of the women were middle-aged for both the IDP and the non-IDP groups. The mean stress scores were much higher among IDPs than their counterparts, indicating that displacement was strongly correlated with elevated stress. Blood pressure was observed to be slightly linked with stress, but this relationship did not show

a statistically significant association between them. Suicidal thought was observed to be higher among those who have a high perceived stress level, with 69.23%. Overall, displacement had a significant impact on an individual's psychological well-being. Overall, the findings of the present study reveal that there is an urgent need to address the psychological well-being of the IDPs residing in relief camps.

Conflict of Interest: There is no conflict of interest

ACKNOWLEDGEMENTS

We would like to express our sincere gratitude to our supervisor Prof. Haobijam Vokendro, Department of Anthropology, Manipur University for his guidance, thoughtful suggestions and invaluable support in shaping this work. And also, we would like to thank all the participants who participated in this study.

REFERENCES CITED

- Bhelkar, S. M., S. P. Zodpey and A. M. Gaidhane 2018. Association between stress and hypertension among adults more than 30 years: A case-control study. *International Journal of Community Medicine and Public Health* 5(3): 1032- 1036.
- Burns, R., A. Wickramage, Musah, C. Siriwardhana and F. Cecchi 2018. *Health status of returning refugees, internally displaced persons, and the host community in a post-conflict district in northern Sri Lanka: A cross-sectional survey.* *Conflict and Health*, 12: 41. <https://doi.org/10.1186/s13031-018-0176-7>
- Devi, Y. A., K. R. Devi and A. Keisam 2018. Prevalence of prehypertension and hypertension among medical graduates in Manipur and its association with risk factors. *Journal of Evolution of Medical and Dental Sciences*, 7(28): 3183+
- Eighth Joint National Committee (JNC 8) Recommendations 2024. *Hypertension*. <https://www.justintimemedicine.com/curriculum/201>
- Girdhar S, S. Sharma, A. Chaudhary, P. Bansal and M. Satija 2016. An epidemiological study of overweight and obesity among women in an Urban area of North India. *Indian J Community Med*;4: 154-7.
- Gupta, R. and V. P. Gupta 2019. Effect of occupational stress on hypertension among professionals in Bareilly district: A cross-sectional study. *Indian Journal of Public Health Research and Development*, 10(5): 153–157.
- Hu B, X. Liu, S. Yin, H. Fan, F. Feng and J. Yuan 2015. Effects of Psychological Stress on Hypertension in Middle-Aged Chinese: A Cross Sectional Study. *PLoS ONE* 10(6): e0129163. doi:10.1371/journal.pone.0129163
- Jackson Heart Study 2000–2012. Perceived stress and incident hypertension in Black Americans: The Jackson Heart Study. *American Journal of Hypertension*.

- Mayanglambam, S. and S.K. Gautam 2025. Trauma, Anxiety, and Social Well-being among IDP Adolescents in Conflict with the Law, Manipur. *International Journal of Indian Psychology*, 13(2): 1982-1999. DIP:18.01.183.20251302, DOI:10.25215/1302.183
- Rajkumari, R., S. R.Chanu and K. N. Singh 2024. Psychological consequences of ethnic violence among internally displaced persons in Manipur: A community-based study. *Manipur Journal of Social Medicine*, 12(1): 45–53.
- Salihu, D., E. M. L.Wong, R. Y. C.Kwan, G. W. K.Ho, M.Chutiyami, K. S.Surajo, U. M.Bello, A. A.Ibrahim, M. U.Ali, S.Wang, K. Bashir, H. A.Jalo, M. M.Haddad, A. D.Suleiman, D. K.Ajio, G. M.Ali and D. Y. P. Leung 2022. Anxiety, depression, and stress among internally displaced persons and the host community in an armed conflict region: A comparative study. *Psychiatry Research*, 315, 114700. <https://doi.org/10.1016/j.psychres.2022.114700>
- Suter, P. M., R.Maire & colleagues 1997. Self-perceived stress and blood pressure in a healthy population: AIR94 Study. *Journal of Human Hypertension*, 11(3): 161–166.
- Tanna, R. and S. Khatri 2021. Correlation between perceived stress and blood pressure among adults: A study from Gujarat. *Indian Journal of Health and Wellbeing*, 12(5): 225–229.
- World Health Organization 2023, February 21. *Stress*. <https://www.who.int/news-room/questions-and-answers/item/stress>
- World Health Organization 2025, September 25. *Hypertension*. <https://www.who.int/news-room/fact-sheets/detail/hypertension>