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# Original scientific paper

The Quality of Life of Women in India: Exploring Regional Realities S. Banerjee<sup>1</sup>, M. Pal<sup>2</sup>, C.S. Biswas<sup>3</sup>, S. Biswas<sup>4</sup>, S. Bharati<sup>5</sup>, P. Bharati<sup>6</sup> *Human Biology Review, Volume 14 (2), pp. 106-125* 

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# The Quality of Life of Women in India: Exploring Regional Realities

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# **ABSTRACT**

This study explores the determinants of the quality of life (QOL) of married women in India, focusing on regional and socio-economic factors using data from the National Family Health Survey (NFHS-5). About 5,239 married women in India are considered for the study. A Quality of Life (QOL) index has been generated from related household characteristics. Most of the women face average quality of life. Women from the South and North East regions report higher QOL while the Central regions show the lowest QOL. Rural women experience 0.054-point lower QOL than urban women. Similarly, higher education and better occupational status positively influence QOL of women. Women whose husbands have high and medium education or high-level occupations experience better QOL. Women who are heads of households report higher QOL. Illness and husband's alcoholism have minimal impact. Finally, nuclear families report better QOL than joint families. Women's quality of life in India varies by region and education. Policies should focus on education, economic security, and reducing regional inequalities to empower women.

**Keywords:** Quality of Life (QOL), Regional Disparities, Women.

### INTRODUCTION

Development in India has traditionally been measured by GDP, but Amartya Sen (1999) argues that true progress should be evaluated by expanding people's freedoms and capabilities. This shift in perspective emphasizes that women's quality of life (QOL) is not just about economic indicators, but also about how well their developmental needs are met within their communities. To capture this complexity, Rice (1984) distinguishes between objective QOL-such as measurable living standards-and subjective QOL, which encompasses emotional well-being and overall life satisfaction. These two dimensions of QOL are further influenced by regional disparities, as status of women vary significantly across different geographic and socio-cultural contexts. These two dimensions of well-being (objective and subjective) interact differently depending on geographic and socio-cultural contexts. However, in our study we took only objective QOL due to non-availability of subjective data regional disparities, particularly between rural and urban areas, shape women's experiences in profound ways.

Besides, traditional gender roles significantly shape a woman's quality of life, particularly in developing countries like India, where, marriage often serve as a key factor in determining her social and economic status (Biswas & Mukhopadhyay, 2018). These roles are reinforced by societal expectations, which can limit woman's opportunities and autonomy (Kaur et al., 2012). In many Indian families, traditional gender roles reflect male chauvinism and female dependence. Husband typically holds a dominant position, making most major decisions, while wife accepts a subordinate role within the household, with her contributions in the domestic sphere often overlooked (Kapur, 1974). While the growing literacy and workforce participation of women across India is restructuring traditional gender roles, the regional variations in social structures and cultural norms play a crucial role in determining

how these changes manifest in women's lives in both objective terms (such as increased income and educational opportunities) and subjective terms. Healthcare access remains a crucial matter for women, particularly in rural area. In these areas, women often face limited access to healthcare services. These health challenges directly affect women's overall well-being and their ability to participate in the social and economic spheres of life (Banerjee et al., 2021-22, Sanneving et al., 2013; Jeganathan et al., 2024).

While challenges persist, significant strides have been made in improving women's literacy, with 65 percent women being literate compared to 82 percent men. On the other hand, workforce participation, which increased from 20 percent in 1981 to 27 percent in 2001 (Census, 2011). These improvements have contributed to greater economic independence and personal empowerment. However, female literacy, is an important component of the Gender Development Index (GDI), though is not sufficient by itself to ensure women's empowerment. States like Tripura reveal that literacy gains must be paired with economic development and supportive social policies to truly enhance women's quality of life, Kerala State Planning Board (2021).

In matrilineal society of Meghalaya, women inherit property and enjoy distinct social roles, hence it is expected that women would experience a higher quality of life compared to other regions. Northeast region still faces challenges in economic development, healthcare access, and political representation, which can limit the full realization of women's potential. Additionally, regions with entrenched patriarchal norms, such as parts of Northern India, present significant barriers to women's empowerment, while states like Kerala and those in the Northeast have more egalitarian social structures that afford women greater freedom and security. This study aims to explore how regional socio-cultural factors shape women's quality of life in India. Specifically, it will examine how these factors vary across different geographical regions and identify the key determinants that influence women's well-being in both urban and rural contexts.

The Gender Development Index (GDI) rankings reveal significant regional disparities in women's empowerment across India. In 2018, Kerala, Mizoram, and Goa ranked highest due to strong female literacy and favorable sex ratios, while states like Rajasthan, Uttar Pradesh, and Bihar ranked lowest because of challenges in literacy and gender imbalance. Though female literacy often correlates with higher GDI, states like Tripura show that literacy improvements alone don't guarantee better GDI performance if other factors like income are lacking. The sex ratio also impacts GDI, with states like Kerala and Tamil Nadu improving both, while Punjab and Sikkim face challenges despite higher GDI rankings (World Economic Forum, 2014; Santosh et al., 2022).

Due to India's diverse and rapidly changing socio-cultural norms women's quality of life is influenced by a range of factors, including socio-economic status, cultural traditions, and political participation. QOL of women in a male-dominated orthodox society is generally perceived as unsatisfactory. Nevertheless, with ongoing liberalization, women are increasingly entering into skilled as well as unskilled jobs to support their families while balancing professional and childcare responsibilities. Against this backdrop, present study aims to identify the determinants of quality of life of Indian women across various geographical regions.

## **METHODOLOGY**

### Study data and sample:

Present study uses unit-level data from the National Family Health Survey (NFHS-5), directed by the International Institute for Population Sciences (IIPS) during 2019-2021. The survey includes 581,337 women, both married and unmarried, aged 15 to 49 years. However, due to significant missing data of husband's occupation, the study focuses on only 5,239 married women. Additionally, some variables used to calculate the QOL of women such as empowerment and violence are missing. Hence, we consider only those data for which complete information is available, focusing specifically on those variables that have full and reliable data.

# Study design

This is a cross-sectional study that utilizes data from the NFHS-5, which is representative of the population of married women aged 15 to 49 years across India. The cross-sectional data investigates the current state of quality of life (QOL) and its determinants at a specific point of time. The study enables the analysis of multiple dimensions of QOL and their interrelationships with socio-demographic, economic, and cultural factors.

# Quality of Life Index (QOLI) Construction

The Quality-of-Life Index (QOLI) is constructed using various groups of categorical variables including nutrition, health, housing conditions, background characteristics, experience of violence, autonomy, and recreation. These groups are first stage components of QOL as shown below.

- a) Nutrition: Consumption of various food items (milk, pulses, fruits, etc.)
- b) Health: BMI, anemia, antenatal care, and number of children born
- c) Housing Condition and Amenities: Features like house ownership, toilet facilities, and drinking water sources
- d) Respondent's Background Characteristics: Education, occupation, and age at marriage/childbirth
- e) Experience of Violence: Frequency of violence experienced by the respondent
- f) Autonomy: Decision-making power in household matters and mobility
- g) Recreation: Engagement in recreational activities, such as attending movies

Each of these components consists of one or more categorical variables that are given in Table 1. Each component is assigned a separate index, which is calculated by summing the relevant variables. Simple mean of these indices constitutes the composite Quality of Life Index (QOLI) for the household. Finally, the QOLI is categorized into three levels—low, medium, and high—using equal intervals determined by the formula: (Maximum QOLI - Minimum QOLI) / 3. This method ensures a comprehensive and systematic assessment of women's Quality of Life. For completeness of the list of variables used in the paper we include the explanatory variables in Table 2.

Table 3 provides an overview of the living conditions of women across various contexts. In terms of housing, majority of the women live in pucca house, followed by kaccha houses and semi-pucca houses. However, majority of the women do not have own houses (51.8%), while about 48 percent are homeowners. Regarding drinking water, majority of the households rely on piped water (59%), followed by tube wells (38%), and surface water (3%). In terms of

sanitation, majority of the women do not share toilet (89%). By types, more than 55 percent households have flush toilet, 23 percent households do not have toilet facilities, and 21 percent use pit toilets. Regarding cooking fuel, majority of the households rely on LPG for cooking, followed by coal, charcoal, woods or shrubs and kerosene or electricity. Furthermore, household possessions reflect varying living standards. Among the household possessions, most have television (73%), few have radio (6%), 31 percent have refrigerator, 51 percent have bicycle, 49 percent have motorcycle, and about 6 percent have own car.

Data presents various aspects of the respondents' background (Table 4). In terms of residence, the majority of women reside in rural areas (78%), followed by urban areas (22%). Regarding religion, the majority are Hindus (87%), followed by Muslims (5%) and others (9%). In terms of caste, the majority of respondents belong to OBC (41%), followed by SC (25%) and ST (19%). A smaller proportion fall under General categories (13%) and a small percentage (0.4%) do not know their caste.

Majority of the women are middle-level educated (57%), followed by low-level education (34%) and highly educated women (9%). In terms of occupation, majority of women hold medium-level jobs (59%), followed by low-level jobs (34%), with a smaller percentage holding high-level jobs (8%). As per their husband's education, majority have medium-level education (66%), followed by low education (23%), and only 10 percent are highly educated. Regarding their husband's occupation, more than 60 percent hold medium-level jobs, followed by low-level jobs (35%), and only 5 percent have high-level jobs. In terms of wealth index, more than 45 percent of households fall under the poor category, followed by rich (30%) and middle class (24%).

Table 5 provides the frequency of consumption of various food items. Milk is primarily consumed daily by 45 percent of respondents, with a significant portion (28%) having it occasionally and 20 percent consume it weekly. Beans show a similar pattern, with 47 percent eating them weekly and daily, indicating frequent consumption. Green leafy vegetables are mostly eaten daily (49%) or weekly (41%), with only a small percentage consuming them occasionally (10%). Fruits are consumed occasionally by the majority (56%), though only 9 percent eat them daily, suggesting a preference for less frequent consumption. Eggs are consumed weekly by 47 percent and occasionally by 29 percent, indicating regular but not daily consumption. Regarding consumption of fish, it is found that about 36 percent eat it occasionally and 34 percent weekly, while only a small portion (4%) consume it daily. Chicken or meat is predominantly consumed weekly (42%) and occasionally (35%), showing that it is part of regular meals but not every day. Fried food is mostly consumed occasionally (57%), with 32 percent eating it weekly, while aerated drinks are consumed occasionally by 72 percent of respondents. Overall, data reveals a tendency for most food items to be consumed regularly, either weekly or daily, though some, like fruits, aerated drinks, and fried food, are more likely to be consumed occasionally.

Table 6 shows the matrix of correlation coefficients. It reveals the key factors affecting Quality of Life (QOL) for women in India (Table 3). Empowerment Index (EI) has a strong positive correlation with QOL (r = 0.659), indicating that greater empowerment improves quality of life. It also weakly correlates with Household Conditions (HhD) and Respondent Characteristics (RC), while negatively correlated to Violence, suggesting empowerment reduces exposure to violence. Household Conditions (HhD) have a moderate positive

correlation with QOL (r = 0.474), highlighting the importance of better living conditions. It is also positively correlated to Health, Nutrition Index (NI), and Respondent Characteristics. Health and Respondent Characteristics are positively linked to QOL, with health showing a moderate correlation. Nutrition Index (NI), though weakly correlated with QOL, contributes to well-being. Cinema has a moderate positive correlation with QOL (r = 0.338), indicating that leisure activities enhance quality of life. Violence shows weak negative correlations with several factors, but its overall effect on QOL is less significant compared to Empowerment and Household Conditions.

By zone, women from southern part lead high (42%) QOL, and 33 percent of women experience medium QOL (Table 7). In contrast, about 31 percent women experience low QOL and very few (9%) have high QOL in Central zone. In North zone, 17 percent women lead high QOL which is larger than that of enjoying medium (12%) QOL. The East, West and North East zones show more or less balanced distribution with varying proportion of low, medium and high QOL.

Mean level of Quality of Life (QOL) of women across different geographical zones in India, as presented in Table 8, reveal notable variations. Among the zones, the South Zone exhibits the highest mean QOL score, followed closely by the North East Zone, and the North Zone. The West Zone reports a mean QOL of about 20, while the East Zone has a slightly lower mean of 19. The Central Zone registers the lowest mean QOL score.

The ANOVA results indicate that there are significant differences in the Quality of Life (QOL) scores across the geographical zones in India as shown in Table 9.

The Tukey's post-hoc test reveals that the South Zone has the highest Quality of Life (QOL) score, followed closely by the North East and North Zones. The Central Zone has the lowest QOL. The zones are grouped into homogeneous subsets, indicating that some zones (e.g., North and North East) have similar QOL scores, while others (e.g., Central) differ significantly from the rest shown in Table 10.

Our aim is to see the effect of socioeconomic and geographic variables on quality of life. Since most of the variables are categorical and nominal in nature, results of usual regression would be meaningless. So, we broke each variable into number of binary variables representing each category of the variable minus one. The category which was not transformed into binary variable is the base variable chosen conveniently. Since the number of variables increased substantially, we tested for collinearity along with the regression. The result of the regression is given in Table 11.

The last two columns in Table 11 give "Tolerance" and "Variance Inflation Factor (VIF) showing the extent of multicollinearity due to the respective explanatory variables. Tolerance value should be greater than 0.1 and/or VIF must be less than 10 for each explanatory variable to be included in the regression to avoid multicollinearity. In the regression all the variables obeyed these criteria.

Overall, the goodness of fit of the regression is good. Approximately 26 percent of the variation in the dependent variable (QOL) can be explained by the independent variables included in the model. This is significant at 1 percent level.

The regression results of Table 11 reveal several key factors influencing the quality of life (QOL). Regional effects show that women from the South and North East regions show significantly higher effect on QOL than the Central zone. In fact, all the zones have higher effect on QOL than the Central zone. The coefficient attached to North East zone, say, is 0.504. This means that the QOL of a household in the North-East zone is more than Central zone by 0.504 point.

Women living in rural areas experience a decrease in QOL than urban areas by 0.398 point and it is significant at 1 percent level.

Though non-Hindus have more effect on QOL than Hindus but it is not significant. Similar are the cases of SC, OBC and General Caste communities compared to ST community.

Educational attainment has a strong impact on QOL. Higher is the education higher is the QOL and these are significant at 1% level. Women whose husbands have middle-level education experience higher QOL, and those with high education show a more substantial increase of QOL compared to women whose husbands have low education level. Similar results have been found for husband's level of occupation. Respondents whose husbands are in medium-level occupations have higher QOL compared to women whose husbands are unemployed. For high-level occupations QOL is even higher. Similarly, higher wealth index leads to higher QOL. It is to mention that wealth index and husband's level of occupation are positively related.

Media exposure also has positive significant effect on QOL. QOL of women does not significantly depend on the alcoholism of husband.

If a woman herself is the head of household, then QOL increases substantially compared to that of other women. Women who are heads of their households have better QOL than those who are not. Illness does not show significant influence on QOL. Nuclear families enjoy better QOL than joint families.

### **DISCUSSION**

Both men and women are allowed to lead a better quality of life, but in reality, women's quality of life is hindered by various socio-economic, cultural, and regional factors. Challenges such as restricted autonomy, limited access to healthcare facility, and gender-based discrimination determine their overall quality of life. Despite progress in some areas, inequalities in education, economic security, healthcare facility, and empowerment still persist, particularly in rural area.

Government has made a number of social programs and health initiatives to better the livelihoods of its citizens particularly for economically underprivileged sections. Schemes like Indira Awas Yojana (IAY), Rajiv Awas Yojana (RAY) and Pradhan Mantri Awas Yojana promises to provide affordable housing for the poor. According to the data, 32 percent women resides in kaccha houses, which are typically constructed with low-quality materials, while 29 percent reside in semi-pucca houses, and 40 percent in pucca houses, depicts varying levels of system and access to better living conditions. Also, 52 percent women do not own their homes, depicts the ongoing need to implement affordable housing schemes. These schemes help to improve housing condition, particularly for those resides in rural areas, where 78 percent of women live.

In addition, government has focused on expanding opportunities for assisted reproductive technology (ART) service such as In vitro fertilization (IVF) in healthcare field. While IVF

services are not free, but available at discount in some government hospitals and ART centers, depicts that state government initiatives provide subsidies for IVF for lower-income sections. Additionally, the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PMJAY), also known as the Ayushman Bharat Health Card, has played a crucial role in improving access to healthcare services for economically underprivileged families, covering a wide range of medical treatments such as reproductive healthcare. Despite, the benefits of such health care schemes 53 percent of women still lack health insurance, indicating that a large portion of households remains uninsured.

Data reveals that about 55 percent households use LPG or other forms of gas for cooking, may be due to Government's Ujala Bharat scheme which provides free gas to the lower wealth index people. Above 44 percent people depends on coal or charcoal or woods/shrubs for cooking which is harmful for health, and few (1%) uses kerosene or electricity as a cooking medium reflecting a gradual shift towards cleaner Swatch Bharat. Despite government's efforts, challenges such as limited resources, and infrastructure gaps, especially in rural regions, remain unsatisfactory.

These efforts align with the Sustainable Development Goals (SDGs), particularly SDG 1 (No Poverty), by helping poor through housing schemes; SDG 5 (Gender Equality), by empowering women and improving access to healthcare; and SDG 3 (Good Health and Well-Being), by providing subsidized IVF treatments to enhance reproductive health. These initiatives also contribute to SDG 10 (Reduced Inequalities), as they aim to address gender-based and economic disparities. Though slow, the government's efforts are an important step toward achieving a more inclusive, equitable society, benefiting both men and women.

Regarding food consumption, less than 45 percent respondents consume milk daily, beans frequently (47% weekly, 46% daily), and green leafy vegetables often (48% daily, 41% weekly). Fruits are mainly eaten occasionally (56%), while eggs and fish are consumed regularly but not daily. Chicken or meat is eaten weekly (42%) and occasionally (35%), and fried food is mostly consumed occasionally (57%). Aerated drinks are largely consumed occasionally (72%). In addition to the dietary patterns observed, the mother and Child Free Food Scheme may play a vital role in improving nutrition, particularly for pregnant women, lactating mothers, and young children.

The majority of women in India (81%) have a medium quality of life, while 10 percent experience a low quality of life, and only 9 percent report a high quality of life. This indicates that most women face an average quality of life, with fewer at the extremes. Study tries to explore the determinants of quality of life (QOL) of married women in India, highlighting different regional socio-economic factors. A key finding shows a strong positive correlation between empowerment and QOL. Women with greater control over household and healthcare decisions reported better QOL, which aligns with the Capability Approach (Sen, 1999), indicating that empowerment plays a pivotal role in enhancing individual well-being. As women gain more control over personal decisions, they are better able to improve their living conditions and life satisfaction.

Regional variations in QOL were significant, with women in the Southern and North Eastern regions reporting higher QOL than the Central region. This suggests that differences in infrastructure, healthcare, and educational resources are responsible for regional disparities, as reflected in the Social Determinants of Health Framework (Marmot, 2005). These findings

highlight the need for targeted interventions, particularly in underdeveloped areas, to improve infrastructure and healthcare, thus addressing these regional disparities.

Geographically, urban women reported better QOL, as they had greater decision-making power and access to resources, including education and employment opportunities. These findings echo Conzo et al. (2017), who found that urban women are more likely to make independent decisions, especially in healthcare. In contrast, rural women face challenges such as patriarchal norms, lower educational attainment, and limited resources, which restrict their autonomy and QOL. This supports Feminist Theory (Tong, 2009), suggesting that patriarchal structures in rural areas hinder women's autonomy, resulting in lower QOL.

Education has been identified as a key determinant of quality of life (QOL), with higher levels of education strongly correlated to improved QOL. Additionally, education and occupation of a woman's husband have a positive impact on her QOL, underscoring the importance of household economic stability. The wealth index and media exposure also emerged as significant factors in enhancing QOL. A higher wealth index is linked to a better quality of life, and this is further supported by the positive relationship between wealth and the husband's occupational level. Higher occupational status and economic conditions provide access to modern amenities, which in turn improve overall QOL (Biswas, 2020). Women who are heads of their households reported higher QOL, supporting Leadership Theory (Eagly & Carli, 2003), which suggests that women in leadership roles experience higher self-esteem, empowerment, and well-being. This emphasizes the importance of empowering women to take on leadership roles within their households and in society at large.

#### Conclusion

Women's quality of life (QOL) in India is deeply influenced by socio-economic, cultural, and regional factors. While most women fall into the "medium" QOL category, significant gaps exist, with urban women and those with higher education enjoying better opportunities and well-being. In contrast, rural women face greater challenges due to patriarchal norms, limited resources, and lower access to education, all of which hinder their potential.

Government step forward to improve overall QOL by introducing several beneficial schemes like Indira Awas Yojana (IAY), Rajiv Awas Yojana (RAY), Pradhan Mantri Awas Yojana and other health care facilities. However, more work to do and people should take initiatives to avail these opportunities for better QOL.

The government should take long term scheme to enhance educational opportunities, economic security, and empowering women, which will reduce the gap of regional disparities.

#### **Data limitations:**

Since the NFHS-5 data does not include subjective variables, this study primarily focuses on objective indicators to examine the quality of life (QOL) and its determinants. Future research could benefit from longitudinal studies to explore the long-term effects of these factors on QOL, and further investigation into the role of mental health and social support in shaping women's well-being could provide a more comprehensive understanding of the determinants of QOL.

# Significance of the study

To explore the nature of QOL across different geographical regions, a multi-step approach is employed. This methodology allows for a deeper examination of the variation in QOL determinants across diverse region, helping to identify regional disparities and patterns in women's quality of life.

**Table 1: Components of QOL** 

Variables	Codes				
<b>Component 1: Nutrition consumption</b>					
(a) Milk/curd (b) Pulses or beans (c) Green leafy vegetables (d) Fruits (e) Eggs (f) Fish (g) Chicken/meat (h) Fried food (i) Aerated drinks	Never=1, Occasionally=2, Weekly=3, Daily=4				
Component 2: Health					
(a) BMI	UW=1, N=2, OW=3, Ob=4				
(b) Anemia level	Severe-1, Moderate-2, Mild-3, Not anemic-4				
(c) Antenatal care received	No-1, Yes-2				
(d) Place of delivery	Home-1, Government hospitals-2, Private hospital-3				
(e) No. of children born	No child-1, 1-4 children-2, 5+-3				
Component 3: Household amenities					
(a) Ownership of house	No-1, Yes-2				
(b) Type of house	Katchha-1, Semi pucca-2, Pucca-3				
(c) Toilet facilities	No facility-1, Pit toilet-2, Flush toilet-3				
(d) Sources of drinking water	Surface water-1, Tubewell/Dug well-2, Piped water-3				
(e) Cooking medium	Straw/shrubs/grass/Agricultural crop/animal dung/ other-1, LPG/Biogas-2, electricity or Kerosene-3				
Component 4: Respondent's Characteris	stics				
(a) Level of education	Illiterate and low-1, Middle-2, Higher-3				
(b) Occupation	No job/Low-1, Medium-2, High-3				
(c) Age of respondent's first birth	Below 14- 1, 15-26-2, 27 and above-3				
Component 5: Experience of violence	1				
Emotional Violence	No-1, Yes-2				
<ul><li>(a) Humiliated in front of others</li><li>(b) Threatened by someone close to her</li><li>(c) Insulted or made to feel bad about hers</li><li><i>Physical violence</i></li></ul>	eelf				

<ul> <li>(a) Pushed, shaken or thrown</li> <li>(b) Slapped/twisted her arm</li> <li>(c) Punched her with a fist or something that could hurt</li> <li>(d) Kicked or dragged her</li> <li>(e) Attacked her with a knife or gun</li> <li>Sexual violence</li> </ul>	
<ul><li>(a) Forced to engaged or threatened by sexual intercourse and acts</li><li>Controlling behaviour</li></ul>	
<ul> <li>(a) Felt that her husband was jealous or angry if she talked with other men</li> <li>(b) Frequently accused her of being unfaithful</li> <li>(c) Did not permit her to meet her female friends</li> <li>(d) Tried to limit her contact with her family</li> <li>(e) Insisted in knowing where she is at all times</li> <li>Justification of domestic violence</li> <li>(a) Beating justified if wife goes out without telling husband</li> <li>(b) Beating justified if wife neglects the children</li> <li>(c)Beating justified if wife argues with husband</li> <li>(d)Beating justified if wife refuses to have sex with husband</li> <li>(e) Beating justified if wife burns the food</li> <li>Component 6: Autonomy of the respondent</li> </ul>	
AMI	
(a) Saving account (b) Knowledge of loan (c) Has money for her own use <b>SPI</b>	No-1, Yes-2
(a) Spending money (b) Husband earning (c) Large purchase	
<i>RHD</i> I	Other than respondent-1
<ul><li>(a) Health care (b) Daily purchase (c) Visit to family relatives</li><li>(d) Using contraception</li></ul>	Jointly with husband-2 Alone-3
	-
(d) Using contraception	Alone-3 Other than respondent-1
(d) Using contraception  MI	Alone-3
(d) Using contraception  MI	Alone-3 Other than respondent-1
(d) Using contraception  MI	Alone-3 Other than respondent-1 Jointly with husband-2
(d) Using contraception  MI	Alone-3 Other than respondent-1 Jointly with husband-2

Attend cinema	No-1, Yes-2

**Table 2: Explanatory Variables for QOL** 

Residence	Urban-1, Rural-2
Religion	Hindu-1, Muslim-2, Others-3
Caste	Scheduled caste-1, Scheduled tribe-2, OBC -3, General-4
Education of partner	Illiterate/low-1, Medium-2, Higher-3
Media	No exposure-1, Have exposure-1
Occupation of partner	Low-1, Medium-2, High-3
Husband alcoholic	No-1, Yes-2
Relationship to household head	Others-1, Wife-2, Head-3
Illness of respondent	No-1, Yes-2
Household structure	Non-Nuclear-1, Nuclear-2
Wealth index	Poor-1, Middle-2, Rich-3

Note: UW- Underweight, N- Normal, OW- Overweight, Ob-Obese; AMI- Access to money; SPI- Spending money decision; RHDI-Routine household decision; MI-Mobility freedom

**Table 3: Exploring the Living Conditions of Women across Different Contexts** 

House type	Kaccha house	1686 (32.2)
	Semi pucca house	1495 (28.5)
	Pucca house	2058 (39.3)
	Total	5239
Ownership of house	No	2713 (51.8)
	Yes	2526 (48.2)
	Total	5239
Source of drinking water	Surface water	179 (3.4)
	Tube well	1964 (37.5)
	Piped	3096 (59.1)
	Total	5239
Toilet shared	No	3626 (89.0)
	Yes	449 (11.0)

	Total	4075
Type of toilet	No	1217 (23.2)
	Pit	1072 (20.5)
	Flush	2950 (56.3)
	Total	5239
Cooking fuel	Straw/coal/charcoal	2286 (43.6)
	LPG/Biogas	2885 (55.1)
	Electricity /Kerosene	68 (1.3)
	Total	5239
Health insurance	No	2787 (53.2)
	Yes	2452 (46.8)
	Total	2239
Household has: Radio	No	4991 (95.3)
	Yes	248 (4.7)
	Total	5239
Television	No	1430 (27.3)
	Yes	3809 (72.7)
	Total	5239
Refrigerator	No	3621 (69.1)
	Yes	1618 (30.9)
	Total	5239
Bicycle	No	2557 (48.8)
	Yes	2682 (51.2)
	Total	5239
Moto cycle	No	2686 (51.3)
	Yes	2553 (48.7)
	Total	5239
Car	No	4928 (94.1)
	Yes	311 (5.9)
	Total	5239

Table 4: Sociodemographic profile of the studied women

Urban	1150 (22.0)
	1150 (22.0)
Total	5239
Hindu	4542 (86.7)
Muslim	236 (4.5)
Others/ General	461 (8.8)
Total	5132
Schedule caste	1260 (24.7)
Schedule tribe	999(19.1)
OBC	2123 (40.5)
General	698 (13.3)
Don't know	23 (0.4)
Total	5103
Low	1794 (34.2)
Middle	2977 (56.8)
Highly	468 (8.9)
Total	5239
Low	1768 (33.7)
Medium	3078 (58.8)
High	393 (7.5)
Total	5239
Low	1221 (23.3)
Medium	3474 (66.3)
High	544 (10.4)
Total	5239
Low	1832 (35.0)
Medium	3155 (60.3)
	Hindu  Muslim  Others/ General  Total  Schedule caste  Schedule tribe  OBC  General  Don't know  Total  Low  Middle  Highly  Total  Low  Medium  High  Total  Low  Medium  High  Total  Low  Medium  High  Total  Low

	High	241 (4.6)
	Total	5228
Wealth index	Poor	2410 (46.0)
	Middle	1286 (24.5)
	Rich	1543 (29.5)
	Total	5239

Note: Respondent/Husband's Education: Low-illiterate, Middle-Primary and Secondary, High-Higher Secondary and above; Respondent/Husband's Occupation: Low-unemployed, Housekeepers, farm plantation, other farm worker, forestry workers, hunters, stone cutters. Plumbers, paper product makers, labors, students etc.; Medium-Machinery fitters, painters, transport equipment operators, accountants, administrative, village officials, merchants etc.; High-Physical scientists, architects, life scientists, nursing, composers, physicians and surgeons etc.

Table 5: Frequency of consumption of various food items of women

Food items	Never	Occasionally	Weekly	Daily
Milk	374 (7.1)	1459 (27.8)	1064 (20.3)	2342 (44.7)
Beans	24 (0.5)	349 (6.7)	2442 (46.6)	2424 (46.3)
Green leafy vegetables	13 (0.2)	538 (10.3)	2167 (41.4)	2521 (48.1)
Fruits	61 (1.2)	2941 (56.1)	1781 (34.0)	456 (8.7)
Eggs	1063 (20.3)	1505 (28.7)	2431 (46.4)	240 (4.6)
Fish	1410 (26.9)	1890 (36.1)	1755 (33.5)	184 (3.5)
Chicken or meat	1181 (22.5)	1843 (35.2)	2172 (41.5)	43 (0.8)
Fried food	186 (3.6)	2977 (56.8)	1694 (32.3)	382 (7.3)
Aerated drinks	812 (15.5)	3786 (72.3)	550 (10.5)	91 (1.7)

Table 6: Correlation matrix for Quality of life of women in India

		1		1				
	EI	HhD	Health	NI	RC	Cinema	Violence	QoL
EI	1	.063**		.031*	.072**	.017	022	.659**
HhD	.063**	1	.133**	.175*	.227**	.154**	083**	.474**
Health	.023	.133**	1	*	.186**		081**	.340**
NI	.031*	.175**	.067**	1	.118**	.116**	023	.440**
RC	.072**	.227**	.186**	.118*	1	.171**	134**	.473**
Cinema	.017	.154**		*	.171**	1	018	.338**
Violence	022	.083**	081**		.134**	018	1	.143**
QOL	.659**	.474**	.340**	.440*	.473**	.338**	.143**	1

Note: EI- Empowerment index, HhD- Household condition, NI- Nutrition Index, RC- Respondent characteristics, QoL- Quality of life

Table 7: Percentage distribution of women by level of Quality of life across geographical zones, India, 2019-2021

	QOL				
	low	Medium	high		
India	563	4218	458		
North	51 (9.1)	495 (11.7)	77 (16.8)		
Central	174 (30.9)	713 (16.9)	39 (8.5)		
East	96 (17.1)	703 (16.7)	46 (10.0)		
West	91 (16.2)	553 (13.1)	66 (14.4)		
South	120 (21.3)	1370 (32.5)	193 (42.1)		
North East	31 (5.5)	384 (9.1)	37 (8.1)		

Table 8: Descriptive statistics table for Quality of life of women in Geographical Zones

Zone	N	Mean	SD
North	623	19.75	1.21

Central	926	19.11	1.10
East	845	19.33	1.08
West	710	19.53	1.27
South	1683	19.80	1.17
North East	452	19.76	1.03
Total	5239	19.58	1.11

Table 9. ANOVA for Quality of Life (QOL) Across Geographical Zones

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	369.510	5	73.902	55.476	0.000
Within Groups	6971.126	5233	1.332		
Total	7340.636	5233			

Table 10. Tukey's Post-Hoc Test for Quality of Life (QOL) Across Geographical Zones

Zone	N	1	2	3	4
Central	926	19.1146			
East	845		19.3306		
West	710			19.5312	
North	452				19.7538
North East	623				19.7552
South	1683				19.8039

Table 11: Results of Linear Regression of Women's Quality of Life on the Socio-economic and Geographical factors in India

						Collinearity Statistics	
Predictors	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	18.820	.190		99.020	.000		
North zone	.148	.057	.040	2.601	.009	.587	1.702
East zone	.257	.049	.080	5.238	.000	.612	1.635

West zone	.113	.053	.033	2.148	.032	.614	1.629
South zone	.371	.045	.146	8.198	.000	.444	2.250
North East zone	.504	.061	.120	8.222	.000	.669	1.496
Residence	398	.038	139	-10.478	.000	.805	1.242
Muslim	.042	.069	.007	.600	.549	.960	1.041
Others	.136	.054	.033	2.543	.011	.864	1.157
SC	.039	.044	.014	.871	.384	.555	1.800
OBC	062	.041	026	-1.508	.132	.489	2.043
General Caste	.078	.053	.022	1.479	.139	.618	1.618
Middle educated (Husband)	.207	.035	.083	5.827	.000	.706	1.417
High educated (Husband)	.624	.063	.160	9.938	.000	.545	1.836
Media exposure	.217	.039	.073	5.556	.000	.820	1.219
Medium level of occupation (Husband)	.124	.031	.051	4.058	.000	.884	1.131
Higher level of occupation (Husband)	.474	.079	.084	6.012	.000	.727	1.376
Household head self	.513	.057	.108	8.928	.000	.971	1.030
Husband's alcohol addiction	029	.090	004	317	.751	.976	1.025
Illness	.058	.047	.015	1.219	.223	.982	1.018
Household structure	.097	.029	.041	3.317	.001	.934	1.070
Middle Wealth Index	.399	.039	.145	10.271	.000	.710	1.408
Higher Wealth Index	.674	.044	.259	15.346	.000	.496	2.014
Goodness of fit	of fit $R^2 = .263$ , p-value is less than 0.001.						
C NEUC 5	Source: NEHS 5						

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