

An analysis of women's well-being in India: A case study of Uttar Pradesh

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Abstract:

Conventional poverty measures based solely on income and consumption often fail to capture an important dimension of deprivation experienced by women—time poverty. Limited discretionary time resulting from the combined burden of paid employment, unpaid domestic work and caregiving restricts women's opportunities for health, rest, social participation and personal development, thereby influencing their overall well-being. This study examines women's well-being through the lens of time poverty using a case study of Uttar Pradesh. The paper integrates conceptual and secondary evidence with primary survey findings collected from 200 women across selected rural and urban districts of Uttar Pradesh. Women's well-being is assessed using multidimensional well-being indicators adapted from the Gallup Well-being Framework, together with a 24-hour time-use diary based on the Vickery approach to measuring time poverty. The results show that 82.5% of women are suffering from time poverty. Women spend 7.49 hours every day performing unpaid domestic work, whereas they are left with only 1.42 hours a day for their discretionary time, including leisure, exercise, social participation and learning.

The study also reveals that due to lack of time, women compromise their well-being; they miss family events and social gatherings, skip meals, get less sleep and are physically and mentally exhausted, affecting their quality of life and well-being. It shows that the well-being of a woman does not only depend upon their income and employment but also on the amount of discretionary time they have for their self-care and leisure. The findings of this study emphasise that time poverty is a critical aspect and thus should be considered as an important dimension to measure the well-being of a woman. This supports the need for such gender responsive policies that aim at understanding the unpaid work burden and its impact on women's quality of life, considering Uttar Pradesh.

Key Words: *Time poverty; women's well-being; unpaid care work; time use*

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I. Introduction

Traditionally, poverty has always been linked with the deprivation of money rather than time. Poverty is usually defined as a state where a person cannot afford basic necessities like food, housing, healthcare, etc. If we only consider material possessions as the only indicator of poverty, then we miss out on a very crucial aspect of poverty that is time poverty. Time Poverty tells us how much time a person is left with to spend with family and friends after completing their work responsibilities. Vickery (1997) is among the initial researchers who put emphasis on the importance of time poverty by arguing that if a person is earning well yet he is still poor, it is because he is facing a lack of discretionary time for self-care and leisure, which apparently is an important dimension of a person's life. This lack of time was termed as time poverty. Vickery defined time poverty as a lack of sufficient time after accounting for the time required for paid labour and basic household production to maintain a consumption level above the income poverty line.

This concept of time poverty gained popularity among development economists in recent times. They consider it a different but important dimension of income poverty, and both aspects are inter-connected. Today, in most societies, this unpaid work burden is distributed unequally between men and women. Mostly women are considered responsible for performing this unpaid domestic work, which makes them more susceptible to time poverty. Time-use data collected by India's National Statistical Office show that women spend roughly 7.5 hours a day on unpaid domestic activities against 0.8 hours for men (Time Use Survey, 2019), a gap that constrains the hours women can devote to paid employment, rest or personal development. Because unpaid work of this kind

receives no market valuation, its costs to women's welfare tend to be invisible in conventional economic accounting even where they are large in absolute terms.

The way this time burden interacts with a woman's work arrangement, whether she is formally employed, informally employed, self-employed or occupied solely in unpaid domestic activity, and with her broader well-being is not a simple, one-directional relationship. Formally employed women often carry a double burden, in which employment contribute in addition of domestic responsibilities rather than substituting it. Women confined to unpaid domestic work escape none of the time pressure merely because they are not in the labour force; the volume and continuity of unremunerated tasks can itself be a source of severe time scarcity. To understand the relationship between time poverty and women's work status, it is necessary to empirically establish evidence showing differences between men's and women's time-use patterns. After 3 decades since the 1990s, and moving along a continuous pathway of development, women's labour force participation rates remain low in India. As per PLFS 2018-19, women's participation rate is 18.6% in India, whereas the global average participation rate is 47%. Apart from this, India ranks 139 out of 149 nations on the global happiness index.

The situation in Uttar Pradesh is serious, as it comprises 17.35% of the total national population in India. It is also one of the 5 bottom states on NITI AYOGE's Gender Equity Index, which shows deeply rooted patriarchal norms and a lack of time-saving infrastructure persistent in the rural areas and low female labour force participation. Due to these conditions, this state is suitable for examining how women's time poverty is connected with their well-being and what the impact of work status is, as women's day-to-day life is most affected.

Despite the economic reforms and development over the decades, these gender inequalities are still prominent, which makes it evident that only economic development won't improve the existing inequalities in the condition of women, which is unpaid domestic work, care work and other work burdens, and that is why time poverty should be considered not only as an income parameter but as a policy problem. The majority of policies related to the economic empowerment of women in India focus on credit accessibility, education, or employment opportunities while neglecting the fact that women do not have sufficient time to utilise these resources and facilities. For instance, when a job vacancy, training programme, or credit loan is facilitated to a woman, the main problem is that she does not have the time to attend and avail these. Even if women find the time to avail any of these, it only increases the additional time burden to their already busy schedule. To contribute to the existing literature, this study attempts to understand time poverty and the well-being of women in Uttar Pradesh by finding primary empirical evidence.

Previous studies have examined women's unpaid care responsibilities, work participation, and well-being separately. Still, there is very limited research that studies these three dimensions altogether and tries to understand their relationship with each other. Therefore, the present study attempts to understand the secondary evidence along with primary data collected from a survey of 200 women across urban and rural districts of Uttar Pradesh. Using multidimensional well-being indicators adapted from the Gallup Well-being Framework together with a Vickery-based measure of time poverty, the study analyses women's daily time allocation and the implications of limited discretionary time for their physical, emotional, social and financial well-being. The paper is structured in the following manner: Section 2 presents the conceptual and theoretical framework, Section 3 reviews global and national evidence, Section 4 discusses the Uttar Pradesh context, Section 5 identifies the research gap and objectives, Section 6 describes the research methodology, Section 7 presents the empirical findings and discussion, and Section 8 concludes.

Conceptual and Theoretical Framework

After written informed consent was obtained, a well-designed questionnaire was used to collect the data of the recruited patients retrospectively. The questionnaire included socio-demographic characteristics such as age, gender, nationality, height, weight, and consanguineous marriage, physical activity and lifestyle habits like smoking and alcohol and statin prescribed for at least 2 years continuously and dose, type of DM, its duration, and clinical and biochemistry laboratory investigations such as fasting bloodglucose, glycated hemoglobin (HbA1C), total cholesterol, HDL and LDL cholesterol levels, and TGs.

Vickery's (1977) original formulation proposed a time poverty threshold defined as the minimum discretionary time an individual requires for adequate functioning after accounting for paid work, essential domestic activity and personal maintenance, set at one hour on a weekday and three hours on a weekend day. Harvey and Mukhopadhyay (2007) later reframed the condition more formally. An individual is classified as time poor when the time available after subtracting minimum requirements for personal maintenance and non-substitutable household production is less than the time actually devoted to paid and unpaid work combined. Denoting available time as T_m , the minimum time needed for non-substitutable household production as T_1 , actual working hours (paid and unpaid, including commuting) as T_w , and discretionary time as T_a , the condition can be written as follows.

Time poor if: $(T_m - T_1) < T_w$, equivalently $T_a < T_w$

Not time poor if: $(T_m - T_1) \geq T_w$, equivalently $T_a \geq T_w$

This formulation has been applied across national contexts, including India, Pakistan and Guinea, as well as several European countries. Williams et al. (2016) extended the concept further, showing that time poverty and income poverty, although correlated, identify different populations: a well-paid professional working long hours may be time poor despite material comfort, while a low-income woman in a developing country may experience both forms of deprivation simultaneously, a compounded condition with particular policy significance because income focused anti-poverty measures alone cannot address it.

Work status describes how a woman is engaged with productive activity, both inside and outside the market economy. Four categories capture the range of engagement typical of a developing country labour market such as Uttar Pradesh's. Formal employment is a type of work which comprises waged or salaried work with legal protections such as minimum wages and social security. Informal employment is work performed in the unorganised sector, including agricultural labour, daily wage work, and domestic work, with no legal protections or social security. Self-employment refers to work where the person is engaged as an owner, such as small enterprises and businesses, which offer more flexible working hours that are convenient but lacking security. In the context of a country like India, the majority of women are working in the unpaid domestic work category, and they perform it without any income or monetary compensation. Yet, it is an indispensable part of their daily life. Despite the fact that the majority of women are engaged in this, this does not account for any contribution in National Accounts.

This study has taken into consideration multiple dimensions of well-being such as physical, social, financial and purpose domains. The structure is constructed using the Gallup Well-being Framework. Physical well-being considers all the activities that require time for oneself, such as health status, physical activities, exercise, and adequate rest. Social well-being is comprised of the quality of relationships, attending social gatherings, family events, and community participation, which a time-poor woman would be less likely to attend. Financial well-being measures economic security and financial vulnerability, which is directly linked with time poverty because this affects the availability of time for income-generating capacity. Purpose well-being considers engagement in goal-directed activities, work surroundings, and opportunities available for self-development.

Work status is the primary explanatory variable that impacts the volume, type, and flexibility of time demands every woman faces. Formal employment brings defined hours and legal protection but, for women who retain primary responsibility for household work, adds to rather than replaces domestic obligations, producing the double burden frequently identified in the empirical literature. Informal employment tends to involve longer effective hours and fewer institutional supports such as childcare. Women engaged solely in unpaid domestic work face no employment-related time pressure but experience time poverty arising from the sheer volume and continuity of unremunerated tasks.

Time poverty is positioned as the mediating variable through which work status affects well-being. It reduces time for health-promoting behaviour and preventive healthcare, curtails social interaction, limits capacity to invest in income-generating activities or education, and removes the discretionary time that purpose well-being requires. The relationship is not unidirectional: poor health can itself intensify time poverty by lowering productivity and increasing time spent on health-seeking behaviour, producing a feedback loop between well-being and time scarcity. Socio-demographic factors, including age, education, household income, household size, marital status and rural or urban location, moderate the strength of these relationships, with rural women in India typically facing more severe time poverty owing to the added burden of agricultural labour and subsistence tasks such as water and fuel collection. Figure 1 summarises this integrated framework.

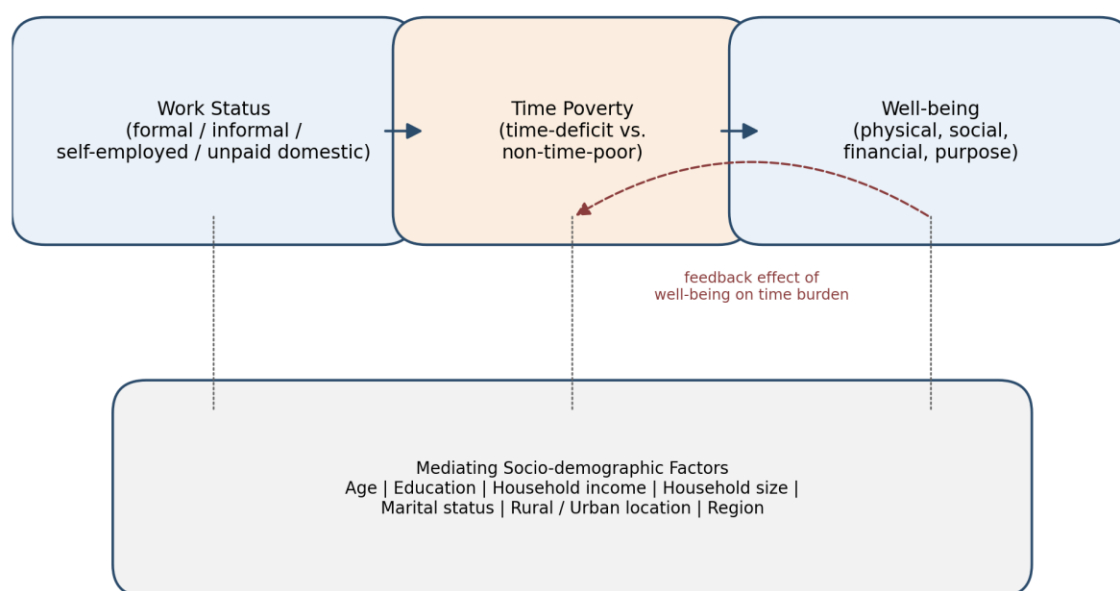


Figure 1. Proposed conceptual framework linking work status, time poverty and well-being, with socio-demographic factors as moderating variables.

Global and National Evidence on Gendered Time Allocation

After written informed consent was obtained, a well-designed questionnaire was used to collect the data of the recruited patients retrospectively. The questionnaire included socio-demographic characteristics such as age, gender, nationality, height, weight, and consanguineous marriage, physical activity and lifestyle habits like smoking and alcohol and statin prescribed for at least 2 years continuously and dose, type of DM, its duration, and clinical and biochemistry laboratory investigations such as fasting bloodglucose, glycated hemoglobin (HbA1C), total cholesterol, HDL and LDL cholesterol levels, and TGs.

Cross-country time-use data compiled by the OECD (2014) confirm that women perform more unpaid work than men in every country for which such data exist, with a global average gap of about 2.5 hours a day. The gap widens considerably in South Asia and sub-Saharan Africa, where women may perform between five and eight times as much unpaid domestic and care work as men (Kalenkoski and Hamrick, 2013; Abdourahman, 2017). Table 1 summarises comparative figures across selected countries and regions, and Figure 2 presents the same data graphically.

Table 1. Daily unpaid work hours by gender, selected countries and regions.

Country / Region	Women (hrs/day)	Men (hrs/day)	Ratio (W:M)
India	7.5	0.8	9.4 : 1
Pakistan	5.2	0.9	5.8 : 1
Sub-Saharan Africa	5.0	1.2	4.2 : 1
OECD average	3.9	1.9	2.1 : 1
United Kingdom	3.8	2.3	1.7 : 1
Japan	4.3	0.9	4.8 : 1

Source: OECD (2014, 2018); Time Use Survey, National Statistical Office, India (2019).

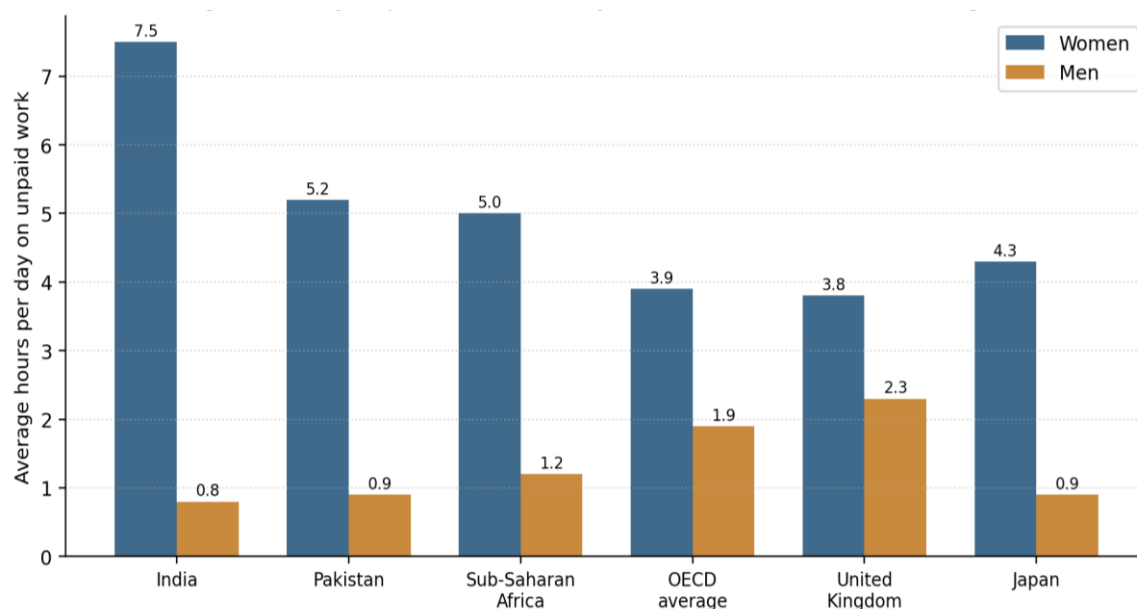


Figure 2. Graphical comparison of daily unpaid work hours by gender across selected countries and regions.

The gap is not simply a function of national income level. Even in high-income economies such as Japan, women retain a substantially larger unpaid workload than men, suggesting that persistent gender norms, rather than income constraints alone, sustain the disparity. Bhutan's Gross National Happiness framework, which explicitly includes time use among its nine domains of well-being, offers one institutional precedent for treating time allocation as a component of national well-being measurement. At the international policy level, Sustainable Development Goal 5, Target 5.4, calls on governments to recognise and value unpaid care and domestic work through public services, infrastructure and shared household responsibility, reflecting a broader consensus that the redistribution of unpaid work is central to gender equality.

Within India, the gender asymmetry documented in the 2019 Time Use Survey is compounded by very low female labour force participation, recorded at 18.4 per cent for women aged 15 and above, compared with 55.6 per cent for men in the 2018 to 2019 Periodic Labour Force Survey. Table 2 presents the disaggregated Indian time-use pattern across major activity categories.

Table 2. Gender differences in daily time use in India, hours per day

Activity Category	Men (hrs/day)	Women (hrs/day)
Paid work (employment)	7.2	1.4 (about 18% participate)
Unpaid domestic work	0.8	7.5
Unpaid care work	0.5	1.2
Learning and self-care	1.5	1.1
Leisure and socialising	3.5	2.2
Sleep and personal care	9.5	10.6

Source: Time Use Survey, National Statistical Office, Government of India (2019).

Women's total work burden, paid and unpaid combined, exceeds men's despite their far lower participation in paid employment, and this unremunerated labour remains largely outside formal economic recognition. The COVID-19 pandemic amplified the pattern: UN Women (2020) estimated that women's unpaid care work rose by around 30 per cent as schools closed and household healthcare demands increased, exposing how easily prior gains in redistributing unpaid work could be reversed. The consequences extend beyond the individual woman. Chaturvedi et al. (2016) linked maternal time constraints in India to reduced capacity for child feeding and healthcare-seeking, with implications for child malnutrition, while Chopra and Zambelli (2017) documented the everyday experience of exhaustion and constrained autonomy among Indian women across several states, dimensions that aggregate statistics alone do not convey. Whillans et al. (2017) further

caution that expanding women's access to paid employment without simultaneously reducing their unpaid workload can intensify rather than relieve time poverty, an insight with direct implications for the design of women's economic empowerment programmes.

Regional context: A case study of Uttar Pradesh

Uttar Pradesh is India's most populous state, accounting for close to 17.35 per cent of the national population across seventy-five districts (Census, 2011), and ranks among the bottom five states on NITI Aayog's 2018 Gender Equality Index. A pronounced rural-urban divide runs through the state's time poverty profile. Rural women, particularly in the eastern districts, combine agricultural labour with domestic work and time-intensive subsistence tasks such as water and fuel collection, conditions compounded by weaker infrastructure, lower female literacy and tighter restrictions on women's mobility. Western districts of the state tend to have better urban infrastructure and higher female literacy, giving women somewhat greater access to formal employment, although conservative gender norms and persistently low female labour force participation remain characteristic of the region as a whole, and the distribution of unpaid domestic work between men and women shows little change regardless of women's employment status.

A research design that samples across contrasting administrative divisions, such as Agra and Varanasi, each including both rural and urban strata, captures meaningful variation in the conditions under which women's time poverty arises and allows the moderating role of region, settlement type and socioeconomic status to be examined empirically.

To complement the secondary evidence presented above, the present study undertook a primary survey of 200 women from selected rural and urban locations across 12 districts of Uttar Pradesh. The survey was designed to capture women's daily time allocation, unpaid domestic and care responsibilities, discretionary time and multidimensional well-being indicators adapted from the Gallup Well-being Framework. The selected districts represent diverse socioeconomic settings within the state, thereby providing contextual evidence on women's lived experiences across different geographical locations. Rather than producing statewide representative estimates, the survey offers empirical case-study evidence illustrating how time constraints influence women's well-being within the Uttar Pradesh context. The following section presents the research methodology adopted for the study.

Research gap and Objectives

The literature has examined time poverty, work status and well-being largely as separate strands. Time-use studies document the scale of gendered time disparity, well-being research examines its correlates, and labour studies focus on participation rates, but comparatively few studies bring the three constructs together within a single empirical framework, and state-level evidence for Uttar Pradesh remains particularly limited. Building on this gap, this research motivates to pursue four objectives: first, to assess the incidence and severity of time poverty among women with differing work statuses; second, to examine women's time allocation patterns across paid work, unpaid work, leisure and self-care; third, to identify the socioeconomic and demographic determinants of time poverty; and fourth, to examine the implications of time poverty for women's multidimensional well-being identified in Section 2.

II. Material and Methods

Research Design: The present study adopted a cross-sectional descriptive and analytical research design to examine women's well-being through the lens of time poverty in Uttar Pradesh. The study combines conceptual and secondary evidence with primary survey data to understand women's daily time allocation, discretionary time and multidimensional well-being. The empirical investigation was conducted using a structured questionnaire together with a 24-hour time-use diary.

Sample and Data Collection: Primary data were collected from 200 women residing in selected rural and urban areas across 12 districts of Uttar Pradesh. Respondents represented diverse socioeconomic backgrounds and work-status categories, including homemakers, regularly salaried employees, self-employed women, casual labourers, agricultural workers, students and unemployed women. Data were collected through personal interviews using a structured questionnaire designed specifically for the study.

Measurement of Time Poverty: Respondents completed a 24-hour time-use diary recording the average time devoted to paid work, unpaid domestic work, unpaid care work, travel, personal care, sleep, leisure, exercise, social participation and learning activities. Discretionary time was computed as the combined time available for leisure, exercise, social participation and learning. Following the Vickery approach, respondents reporting less than 1.4 hours of discretionary time per day were classified as time-poor.

Measurement of Women's Well-being: Women's well-being was assessed using multidimensional well-being indicators adapted from the Gallup Well-being Framework. The questionnaire examined four dimensions of well-being—physical, purpose, social and financial well-being—through multiple Likert-scale statements

reflecting women's perceived quality of life, health, social relationships, financial security and sense of purpose. In addition, direct indicators of women's lived experiences, including skipped meals, delayed healthcare, reduced sleep, mental exhaustion, missed family and social occasions, and reduced opportunities for exercise, were analysed to understand the practical implications of time constraints for women's well-being.

III. Result

Patterns in Time Allocation and Their Implications for Well-being

Table 3. Descriptive Statistics of Women's Time Allocation and Time Poverty in Uttar Pradesh

Indicator	Result
Sample Size	200
Women classified as Time Poor	82.5%
Average Paid Work	5.06 hrs/day
Average Domestic Work	5.52 hrs/day
Average Unpaid Care Work	1.97 hrs/day
Average Discretionary Time	1.42 hrs/day
Average Discretionary Time among Time-poor Women	1.02 hrs/day
Average Time Poverty Deficit	0.38 hrs/day

Source: Primary Survey (N = 200).

Women's Time Availability and Time Poverty in Uttar Pradesh

A primary survey conducted among 200 women across selected districts of Uttar Pradesh revealed that women spend the majority of their day on paid work, household responsibilities, and unpaid caregiving tasks leaving limited time for discretionary activities. As a result, they are left with very little time for activities of their choice. According to Vickery, having less than 1.4 hours of discretionary time (time available to use at one's own will) per day is defined as 'time poverty'. Based on this criterion, 165 out of 200 women (82.5 percent) were found to be time-poor. The survey revealed that women had an average of 1.42 hours of discretionary time available daily, whereas time-poor women had an average of only 1.02 hours. This was, on average, 0.38 hours less than the stipulated 1.4-hour limit. These findings indicate that a lack of time for women to use at their own discretion in their daily lives is a widespread issue across the surveyed districts of Uttar Pradesh.

On average, women spent 5.52 hours daily on unpaid domestic work and 1.97 hours on unpaid caregiving tasks. Thus, they spent approximately 7.49 hours each day on unpaid domestic and care-related activities. Additionally, an average of 5.06 hours was spent on paid work. In contrast, women had only 1.42 hours available for activities of their choice. This included an average of 0.70 hours spent on leisure or rest, 0.20 hours on exercise, 0.35 hours on social activities, and 0.18 hours on learning or reading. These findings indicate that despite increasing participation in paid employment, women continue to perform substantial unpaid domestic responsibilities, leaving very limited time for rest, recreation and personal development.

To better illustrate women's daily time allocation, Figure 3 presents the average number of hours spent in major daily activities. The figure demonstrates that a substantial proportion of women's time is allocated to obligatory activities, particularly unpaid domestic work, paid work and caregiving, leaving comparatively little time for discretionary activities.

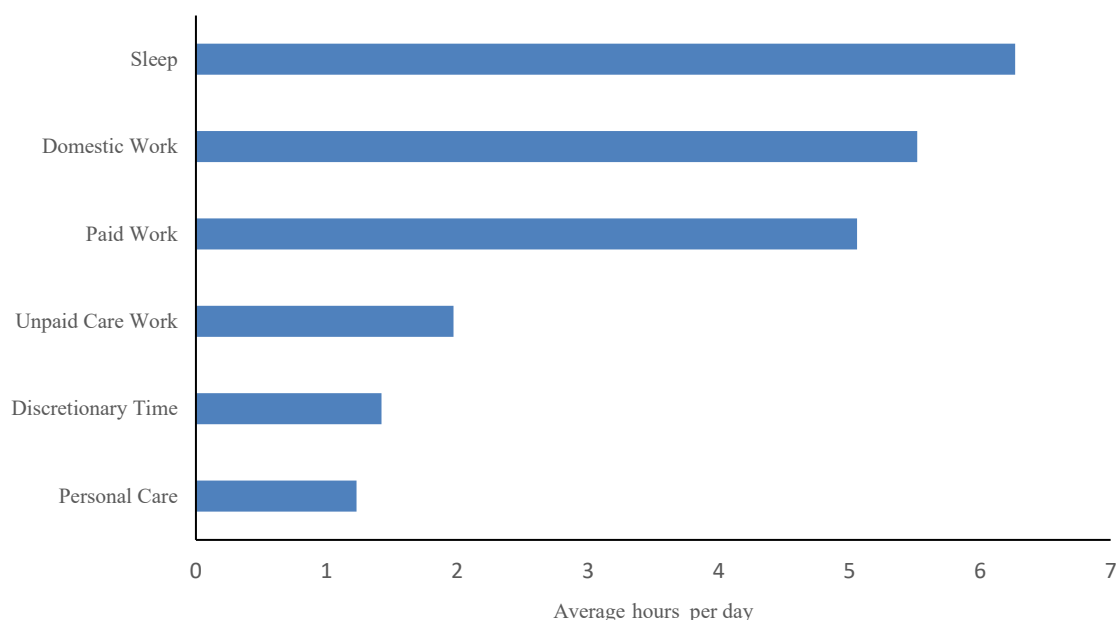


Figure 3. Average Daily Time Allocation of Women in Uttar Pradesh.

Source: Primary Survey (N = 200).

As illustrated in Figure 3, women's daily time is predominantly occupied by obligatory activities, particularly unpaid domestic work, paid employment and caregiving responsibilities. The comparatively small share of discretionary time highlights the limited opportunities available for leisure, self-care, social participation and personal development. These findings reinforce the argument that women's time constraints arise not from a single activity but from the cumulative burden of multiple productive and reproductive responsibilities, thereby restricting their overall well-being.

Women's Well-being

The survey further examined the implications of limited discretionary time for women's well-being through multidimensional well-being indicators adapted from the Gallup Well-being Framework together with direct behavioural indicators reflecting women's lived experiences. The findings provide that time constraints are closely associated with several everyday sacrifices affecting women's physical, purpose, social and financial well-being.

Nearly 47 percent of respondents reported missing family or social occasions because of their daily responsibilities. Approximately 38 per cent reported skipping meals, while 37.5 per cent delayed medical care owing to time constraints. The same proportion (37.5 per cent) reported experiencing mental exhaustion, whereas 37 per cent expressed dissatisfaction with life. Furthermore, 36 per cent reported reducing their sleeping hours and 33 per cent stated that they were unable to exercise regularly because of competing household and work responsibilities. These findings indicate that women's time constraints extend beyond employment and unpaid work to influence their opportunities for maintaining health, social relationships and personal well-being.

To further illustrate the reported implications of limited discretionary time on women's well-being, Figure 4 presents the major behavioural and lifestyle sacrifices reported by the respondents.

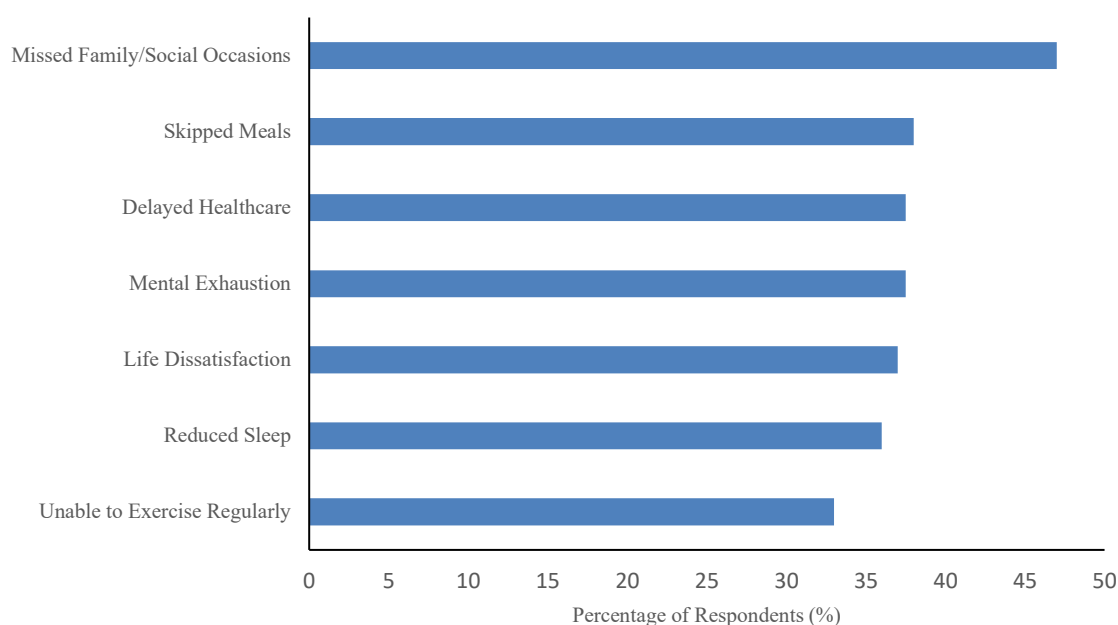


Figure 4. Reported Well-being Sacrifices among Women in Uttar Pradesh.

Source: Primary Survey (N = 200).

Figure 4: demonstrates that the consequences of time poverty extend beyond reduced leisure time and affect several dimensions of women's everyday well-being. The reported sacrifices reflect compromises in health, nutrition, social participation and personal care, indicating that limited discretionary time has practical implications for women's quality of life. Collectively, these findings suggest that improving women's well-being requires not only greater economic opportunities but also sufficient time for rest, healthcare, family interaction and personal development.

IV. Discussion

The primary findings reinforce earlier evidence that women's well-being cannot be understood solely through employment or income-based indicators. Consistent with previous studies on unpaid care work and time poverty, the survey demonstrates that women continue to allocate a substantial proportion of their daily time to domestic and caregiving responsibilities, leaving limited opportunities for leisure, healthcare, social participation and personal development. Although multidimensional well-being indicators adapted from the Gallup Well-being Framework did not reveal statistically significant differences across all domains, the behavioural indicators clearly demonstrate the practical consequences of limited discretionary time. The findings therefore support the argument that time should be recognised as an essential resource influencing women's overall well-being and quality of life. In the context of Uttar Pradesh, improving women's well-being requires policies that reduce unpaid care responsibilities, improve access to childcare and basic household infrastructure, encourage greater sharing of domestic work within households and ensure that women have sufficient discretionary time for health, rest and social participation.

V. Conclusion

This study examined women's well-being through the perspective of time poverty using primary evidence from Uttar Pradesh. By integrating multidimensional well-being indicators adapted from the Gallup Well-being Framework with a 24-hour time-use diary based on the Vickery approach, the study highlights the importance of time as an essential resource influencing women's quality of life. The primary findings reveal that a large proportion of surveyed women experienced limited discretionary time after fulfilling paid work, domestic responsibilities and unpaid care work. Consequently, many respondents reported missed family and social occasions, skipped meals, delayed healthcare, reduced sleep, mental exhaustion and limited opportunities for exercise and personal development.

The findings suggest that women's well-being cannot be understood solely through conventional economic indicators such as income or employment. Instead, adequate discretionary time should also be recognised as an important dimension of well-being. The study therefore emphasises the need for gender-responsive policies that reduce unpaid care burdens through improved childcare facilities, labour-saving

household infrastructure, flexible work arrangements and greater sharing of domestic responsibilities within households. Although the study is based on evidence from selected districts of Uttar Pradesh, the analytical framework and findings provide useful insights for future research on women's time poverty and well-being in other regions of India.

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