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RESEARCH ARTICLE

Time poverty and gender in urban sub-Saharan Africa: Long working days and long commutes in Ghana's Greater Accra Metropolitan Area

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Abstract

This study uses a mixed-methods approach and primary data to consider how the length of the working day in Ghana's Greater Accra Metropolitan Area is shaped by time in paid and unpaid work and commuting. The analysis investigates gender differences in the length of the working day and the incidence of time poverty, and explores the relationship between long working days, long and arduous commutes and well-being. Women are found to be more time poor, and their longer hours of unpaid household caregiving and chores and more difficult commutes have consequences for their leisure time, family-life and health.

KEYWORDS

commuting, Ghana, health, paid work, time poverty, unpaid work, well-being

1 | INTRODUCTION

This paper considers how the length of the working day and the experience of time poverty in Ghana's Greater Accra Metropolitan Area (GAMA) is shaped by time in paid and unpaid work, commuting and gender. Time poverty or scarcity represents a dimension of poverty that has been given increasing attention particularly in, but not restricted to, developing countries (Arora, 2015; Blackden & Wodon, 2006; Walker, 2013). Time poverty results from

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competing claims on time that constrain an individual's choices and lead to long hours of paid and unpaid work and a consequent lack of time for rest and leisure (Bardasi & Wodon, 2006, 2010; Vickery, 1977). Research finds a gender gap in the incidence of time poverty, with women more likely to be time poor than men, particularly in low- and middle-income countries (Arora, 2015; Bardasi & Wodon, 2010; Gammage, 2010; Naynzu, 2017; Orkoh et al., 2020). This is important since insufficient time for rest and leisure impacts on the quality of life by, for instance, limiting time for sleep and personal self-care (Walker, 2013).

In the literature on time poverty, time spent travelling to work is considered 'necessary time' integral to the working day (Kalenkoski et al., 2011) but has not been incorporated explicitly in most analyses, although there are exceptions (e.g. Qi & Dong, 2018). The inclusion of time spent travelling to/from work in the urbanised GAMA therefore marks a contribution of this paper, particularly as time-use studies in low- and middle-income countries in sub-Saharan Africa (SSA) and elsewhere have tended to focus on rural areas (e.g. Arora, 2015; Arora & Rada, 2017; Chowdhury, 2010). Commuting time is particularly pertinent in Greater Accra where, as in other cities in SSA, time travelling to/from work is often long, and public transport can be uncomfortable (Agyemang, 2017; Naynzu, 2017; Orkoh et al., 2020). Orkoh et al. (2020:475) find that time poverty is higher in urban areas of Ghana and suggest that long daily commutes associated with traffic congestion are a contributing factor. Long commutes on top of long working hours further reduce time for rest and leisure and may directly impact health and well-being. There are also implications for gender inequality. Evidence from low- and middle-income countries demonstrates that women are more likely to use cheaper means of transport, often less comfortable, slower and sometimes less safe, to get to work owing partly to inequality in access to good jobs (Uteng & Turner, 2019).

In order to better understand the structure of the working day and the incidence of time poverty in urban Ghana, a mixed-method approach is deployed. This combines primary quantitative data from a survey completed by 799 people and qualitative data from 24 focus groups involving 200 participants. Whilst most previous research on time poverty has been quantitative, mixed-methods approaches have increasingly been used in studies of poverty and deprivation (see Davis & Baulch, 2011; Fibaek, 2021; Lawson et al., 2006; Parella et al., 2021; Stevano, 2019). In this paper, mixed methods enabled time poverty to be considered from different perspectives, contributing substantial insights into people's long working days. In particular, the analysis of the surveys provided us with understanding of the incidence of time poverty whilst analysis of the focus group data provided insights into how participants experienced long working days and arduous commutes and how these impacted their well-being, for example, because of lack of quality family time or accidents whilst commuting.

The paper is structured as follows: the next section reviews previous research, provides country context and outlines the research framework. Section 3 describes the research tools and outlines the methods and measures used in the analysis. Results from the analysis of the survey data and the findings from the focus groups are reported in Section 4. The final section summarises the findings and concludes.

2 | RESEARCH BACKGROUND AND FRAMEWORK

2.1 | Time poverty and the allocation of time

Time poverty implies insufficient discretionary time for 'leisure, educational, and other activities' that improve well-being, where discretionary time is defined as time left over after performing necessary activities of 'personal care and paid and unpaid work' (Kalenkoski et al., 2011:130). The analysis of time poverty explicitly recognises that time is a scarce resource from which individuals and households derive utility. As noted by Bardasi and Wodon (2010), this idea is also central to the economic theory of time allocation in which individuals and families optimise well-being by trading-off time in leisure with time in paid work, unpaid work in household production and any other time use (Becker, 1965, 1981; Gronau, 1977; Huffman, 2011; Reid, 1934). The theory implies that the opportunity cost of time in work-related activities, including time in household work and commuting, is forgone leisure time and

the opportunity cost of leisure time is foregone wages or home production. Positive utility is derived from consumption of goods and services acquired with earned income or through home production and leisure time; time in paid and household work reduces overall utility. Within this framework, time spent travelling to/from work is unproductive time that lowers utility by extending the working day and reducing the time available for leisure.

However, the relationship between travel to/from work times and overall well-being is not that straightforward. Individuals may trade longer commutes for jobs with higher earnings, and the quality of commuting time depends on features such as mode of transport, comfort and safety. In some circumstances, people may even enjoy their commute or be able to work whilst commuting, for example, if they have a seat on a train. Nevertheless, commuting time is often cited as one of the most significant sources of dissatisfaction encountered during the working day (Wheatley & Bickerton, 2016), and long commutes can mean extensive overall hours of work-related activity that diminish subjective well-being (Messenger, 2011).

2.2 | Time poverty and gender

Economic theories of time allocation have been criticised for paying insufficient attention to household dynamics which in turn depend on economic conditions (e.g. earnings inequality) and individual and social context including gender, social norms and traditions. In contrast, feminist theories of bargaining and constrained choice predict gender differences and gendered impacts in the allocation of time (Folbre, 2001, 2004). These differences are particularly salient in the allocation of time to unpaid household chores and family caregiving (Bardasi & Wodon, 2006; Chowdhury, 2010) which can also influence commuting patterns (Wheatley, 2013). The concept of time poverty is therefore particularly useful when considering gender differences in time-use, because it captures long working hours resulting from both paid work and unpaid household work. This broader definition of work incorporates the often hidden or ignored household economy (Elson & Cagatay, 2000; Folbre, 2006). Women's larger share of household work can mean limited time for anything else (Arora, 2015), and, as demonstrated by Arora and Rada (2017) in the case of rural Mozambique, this can have adverse effects on their health and well-being. The gender dimension of household work is especially stark in relation to family care for disabled, sick or elderly relatives which is salient in the context of the global SARS-CoV-2 pandemic. Women from poorer households have been particularly burdened as they cannot pay for childcare or other domestic help and often need to participate in income generation activities.

Paying attention to time poverty is important in the context of policy initiatives to empower women and address the UN's Sustainable Development Goal 5 on gender equality. Anyidoho and Manuh's (2010) analysis of the discourse on women's empowerment expounded by international and local organizations in Ghana notes that the focus has tended to be on 'economic activity, education and "vulnerabilities"'. There was no 'mention [of] women's leisure, or sexuality, for instance, as areas of empowerment. Even within the area of work, the focus is on agriculture and markets, and hardly on formal work or conducive work environments' (p.273). Although there is little research examining women's subjective well-being in developing countries and that which does exist tends to focus on economic determinants (e.g. Easterlin, 2016; Senik, 2014). Work by writers such as Hossain et al. (2019) has recently shown the importance of empowerment across a number of dimensions including access to decision-making over resources, control over use of income, leadership in the community and time allocation to women's subjective well-being. The latter consideration suggests that linking time poverty to dimensions of well-being may contribute to a change in the discourse on gender and empowerment in Ghana and elsewhere. This seems more likely in the context of evidence that women in low and middle-income countries are more time-poor than men. For example, in Guinea, Bardasi and Wodon (2010) find 24.1% of women and 9.5% for men are time poor. In rural Mozambique, Arora (2015) finds that nearly half of women are time poor and less than 10% of men are time poor. Gammage (2010) reports that 15% of men in Guatemala are time poor compared with 33% of women. Using data from Ghana Living Standards Surveys, both Naynzu (2017) and Orkoh et al. (2020) find higher rates of time poverty among women. There are also some

studies that find that men are more time poor, for example, Lawson (2008) in Ezzat and Nazier (2019) in Egypt and Tunisia. These differences point to the importance of country context.

2.3 | Country context

Most cities across Africa are experiencing rapid growth and increasing challenges. In Ghana, the urban population increased more than tenfold from 1.5 million in 1960 to 17.5 million in 2021, with the proportion of the population residing in GAMA's urban localities increasing from 73% to 91.7% between 1960 and 2021 (Ghana Statistical Service, 2014, 2021a). These urban localities housed 5.0 million people in 2021 (Ghana Statistical Service, 2021a), and the total GAMA population increased from 4.0 million in 2010 to 5.4 million in 2021 (Ghana Statistical Service, 2021b), a 3.2% annual growth rate.

Due to rapid population increase, spatial expansion, and intense socioeconomic activities, long daily commutes have become a major characteristic of the GAMA (Esson et al., 2016). Many urban dwellers who need to access jobs, facilities and services reside outside the core of the city (Doan & Oduro, 2012; Owusu, 2013), resulting in high demand for travel to and within the city. For those who live close to the city's commercial areas, travel is equally challenging. As in much of sub-Saharan Africa (Russ et al., 2018) public transport infrastructure is poor, and development has been largely limited to road construction. Consequently, most residents, including commuters, rely heavily on motorised vehicles. Commuters use a range of transport modes: private cars, company buses, private mini-buses (locally referred to as 'trotros'), taxis, commercial motorbikes and trains. Despite the increase in car ownership (Obeng-Odoom, 2010), trotros remain the most common transport mode. The high demand for trotro journeys is largely due to low fares, flexible operations and ability to access alternative routes and passenger spaces during peak times. In addition, trotros enable passengers to embark and disembark in convenient and sometimes undesigned spots.

Whilst the deleterious health impacts caused by traffic congestion and the pollution from the older vehicles used in Africa have become of increasing concern to policymakers (Berg et al., 2017; Embiale et al., 2019), less is known about the health and well-being impacts associated with work and commuting. Wrigley-Asante (2013) provides a rare insight into work-related musculoskeletal injuries endured by female cross-border traders in Accra's informal sector due to the long travel hours in cramped mini-buses. Lawson's (2008) study of time poverty in Lesotho additionally highlights the importance of access to public transport particularly for women who have less control than men over usage of private transport. More understanding of how different work-related commutes and long working days impact the quality of life in African cities would help to inform transport and infrastructure planning. As noted by Orkoh et al. (2020), transport policy and welfare state arrangements are important since they can mediate the costs and trade-offs related to decisions on labour supply.

2.4 | Research framework

In sum, previous research indicates that women are likely to be more time poor than men because of their 'double burden' of household and paid work (Hossain et al., 2019). Long, uncomfortable commutes to/from work, typical of urban regions in SSA including the GAMA, contribute further to time poverty by extending the working day. Theory suggests that well-being reflected by overall life satisfaction is influenced by satisfaction in a range of domains or groups of experiences including work, family and leisure (Costanza et al., 2007; Heller et al., 2004; Stevenson & Wolfers, 2009; van Praag et al., 2003; Veenhoven, 1996). Since time poverty implies insufficient time for rest and leisure because of 'the excessive burden of work' (Arora, 2015:197), it would be expected to have a negative influence on facets of life satisfaction particularly those associated with leisure time and work–life balance.

To provide more understanding of these relationships, the research team conducted primary mixed methods in the urban GAMA using surveys and focus groups. The research investigates the linkages between gender, long working days, long commutes and well-being by addressing the following research questions:

- i. Are women more time poor than men because of a double burden of work?
- ii. How does commuting in urban SSA impact the length and experience of the working day
- iii. How do long working days and long commutes impact the lives of women and men living and working in urban SSA

The surveys addressed these questions by providing quantitative evidence on the incidence of time poverty, the contribution of commuting time to the working day, and the association between domains of life satisfaction and time poverty. The focus groups discussed people's experiences of work and commuting and provided insights on the underlying pathways linking time poverty, commuting and well-being.

3 | METHODS: RESEARCH TOOLS, MEASURES AND PROCEDURES

3.1 | Research tools

The project was designed to research how long working days and long commutes impacted the lives of people living and working in Greater Accra with a particular focus on the experiences of women. All the data used for this research were collected by the authors with the help of Accra-based support workers. To ensure sufficient sample sizes and representation and also for practical reasons, the data collection was undertaken in two phases, the first in April 2019 and the second in January 2020. Surveys and focus groups were conducted in both phases. All the participants lived or worked in the GAMA.

3.1.1 | Surveys

The surveys were conducted mainly in churches and mosques. The purposive choice of location reflects high religious adherence in Ghana. The Ghana Statistical Service (2021b) reports that 71.3% of Ghana's population is Christian and 19.9% Muslim. This strategy therefore enabled recruitment of respondents from different backgrounds representative of the characteristics of GAMA residents, in a relatively short time period. The surveys collected individual-level data on basic demographics, working patterns, commuting and other travel information including modes of transport, time spent in household work, household composition and satisfaction in different domains of life.

In April 2019 survey data were collected from 574 individuals within a 1-week period. Most survey respondents were Christians who completed the survey at the end of normal Sunday Church service (96% of participants in this phase). All churches were located in and around Sakumono, a suburb of Tema, GAMA's second largest city after Accra. With a population of about 22,700 (Ghana Statistical Service, 2014), Sakumono is characterised by a mix of socio-economic groups, and most individuals living in this suburb travel to other parts of GAMA for work and therefore have different experiences of commuting. A minority of the surveys (4%) in this phase were completed by some of the market traders who participated in the focus groups. The January 2020 survey data were collected from 225 individuals in different parts of Accra (including Cantonments, Airport and Accra Central). Around 40% were Muslims who completed the survey after Friday Mosque, and another 28% were Christians who completed the survey after Sunday Church. The remaining 32% were recruited at market places.

Marginally, more participants were female (50.19%), average age is a little under 40 and just under half of the sample were living with a spouse (see Appendix S1: Table A1¹ in the supporting information). Just over 80% were in paid work, and women were more likely to be micro-entrepreneurs (i.e. self-employed with no employees). The distribution of income within the sample reflects the wider gender earnings gap; 44.4% of women who declared their earnings earned below GHS1000 compared with only 38.0% of males. Only 8.8% of women who declared their earnings earned over GHS5000 compared with 17.4% of men.

3.1.2 | Focus groups

The focus group discussions (FGDs) took place during the same time period as the surveys and used a discussion guide informed by the questionnaire to explore working days, commuting and time-use dynamics in more depth. The FGDs enabled us to probe further and gather information that was not readily accessible in the questionnaire. All focus groups were led by locally based facilitators, recruited by the authors, who had experience and training in data collection. Within each focus group, at least two of the authors were also present. FGDs were mainly conducted in the local languages (e.g. Ga and Twi), recorded, translated and transcribed into English. Extracts are not always reproduced verbatim but reflect the general tenor of the comments. In reporting the findings from the FGDs, pseudonyms are used throughout.

In April 2019, eighteen FGDs took place with 150 people in total. Around 900 min (approximately 50 mins × 18 groups) of discussion were recorded with groups comprising market traders, church attendees and women activists. The market traders operated in Accra Central Market, Madina Market and Ashaiman Market, which are among GAMA's biggest and busiest markets. The participants were sampled from a database obtained from a savings and loans organisation in Ghana with a large pool of clients consisting mostly of market traders and small and medium-sized business owners. As shown in Appendix S1: Table A2, 10 FGDs were conducted with market traders near their workplaces. Eight of these focus groups were with women only and two were mixed—although even in these groups, women outnumbered men. For the seven FGDs with church attendees in Sakumono, after Sunday church service, the survey was used to recruit participants. Two of these focus groups were men only and five were mixed. Lastly, a FGD was conducted with women activists including lawyers, and those based in CSOs, NGOs and lobbyists were facilitated by an Accra-based NGO focussed on women's empowerment and gender equality. This group of highly educated, more affluent, professional women provided an interesting contrast to other groups. Six further FGDs were conducted in January 2020 with 50 people. The participants consisted of market traders and individuals who volunteered their time after completing the survey in churches and mosques. Market FGD participants were recruited with support from the head ('Queen mother') of Makola Market. All FGDs with market traders were conducted in Makola.

Analysis of the qualitative data was undertaken through a thematic analysis of the transcripts/written notes. Following the approach suggested by Nigel King (1998), an initial coding template was developed, based on the broad research questions which was augmented and developed through close reading of the data and the inclusion of themes that emerged from this.

3.2 | Measures and procedures

3.2.1 | The length of the working day and time poverty

The survey data enable the measurement of the hours in a working day that include hours in paid work, hours travelling to/from work and hours in unpaid work. The constructed indicators of time poverty follow the most common approach that uses a time poverty 'line' based on an absolute or relative multiple of a 'normal working day' which

defines the time left 'free from work' (Bardasi & Wodon, 2006; Chatzitheochari & Arber, 2012; Lawson, 2008; Vickery, 1977). However, there is no firm consensus regarding the appropriate multiple for relative measures (Williams et al., 2016), and absolute time poverty lines have varied between 10 and 12 h a day in previous research (Arora, 2015; Bardasi & Wodon, 2006, 2010; Gammage, 2010). In this study, we construct two time-poverty thresholds, based on either absolute or relative time. An individual is identified as time poor if their working day is longer than 12 h or their working day is longer than 1.2 times the sample median. These thresholds reflect the inclusion of both commuting time and time in unpaid work; a lower, 10-h threshold identifies more than half of the sample as time poor (median hours are a little over 12) whilst a higher relative threshold of 1.5 times the median (a little over 18 h) identifies very few respondents. An important advantage of the time poverty measures is that they are comparable without the complication of the money-parity issues implicit in income measures (Lawson, 2008). However, we additionally construct indicators of both time and income poverty using labour income below the median category as the threshold for income poverty.

These measures were constructed using survey questions on the times people usually started and finished paid work, the times they usually travelled to/from work, and time in unpaid work. The latter records time in unpaid household work and is constructed by summing across four questions that asked for the average hours of household work in household chores, caring for children, caring for other people (e.g. elderly or sick relatives), household maintenance/repairs, and any other household labour. For each of the first three categories, average hours were higher for women, in particular for household chores (average weekly hours for women were 7.0 compared with 4.4 for men, $p = 0.0003$) and caring for other people (average hours for women were 1.3 a week compared with 0.8 for men, $p = 0.035$), but less so for childcare (average hours for women were 4.4 a week against 3.8 for men, $p = 0.245$). Men reported higher weekly hours for household maintenance/repairs (2.2 for men and 1.8 for women, $p = 0.076$) and other household labour (0.9 for men and 0.7 for women, $p = 0.203$). Only seven respondents defined their current employment status exclusively as unpaid family worker.

3.2.2 | Life satisfaction

Time poverty is expected to have a negative influence on facets of life satisfaction, particularly those associated with leisure time. The analysis investigates the relationship between time poverty and life satisfaction using answers to questions about satisfaction with five different domains or aspects of life: job, health, family life, amount of leisure time and use of leisure time. These questions used Likert scales recording strong dissatisfaction to strong satisfaction. Factor analysis was used to construct an overall index of life satisfaction from the answers to these questions. The index was used as the dependent variable in regression analysis as described below.

3.2.3 | Estimation technique

In the multiple regressions used to examine the relationship between time poverty and life satisfaction, the continuous dependent variable, *LifeSat*, is an index of life satisfaction derived using factor analysis.² The regressions are estimated using OLS and are of the following form:

$$\text{LifeSat}_i = \beta_0 + \beta_1 \text{TimePoverty}_i + \beta_2 \text{TranspMode}_i + \beta_3 X_i + \varepsilon_i \quad (1)$$

where *LifeSat_i* is the life satisfaction index for individual *i*, *TimePoverty* measures either the length of the working day or the incidence of relative or absolute time poverty. Additional estimations of equation (1) include the interactions between absolute or relative time poverty and income poverty. *TranspMode* is a dummy variable that indicates whether the individual uses trotro as main mode of transport to work. *X_i* is a vector of individual characteristics

including gender, age, household membership and composition including age group of children and whether or not individual lives with spouse or alone. The vector also includes employment type.

4 | RESULTS

4.1 | Quantitative findings

4.1.1 | Measuring the working day

Analysis of the survey data shows that both men and women, on average, undertake paid work for 9 h per day (Table 1). Men spend an average of 1.8 h per day commuting, against women's 1.6. Adding in unpaid work means that women are (significantly) more time poor in an absolute sense than men, as the former spend an additional 1.9 h per day on average on this activity and men 1.5 h. The average total working day therefore amounts to no less than 11.9 h per day for men and 12.7 h per day for women. Average hours are naturally higher if we exclude individuals who spend zero time in any of these measures but overall patterns are very similar. The only exception is that average hours spent commuting are marginally higher for women than men when we exclude those who report zero-time commuting, with this finding suggesting a greater propensity of women to work from, or in close proximity to, their homes.

Table 2 provides further information on time poverty. It demonstrates a 6.5 percentage point gender difference in absolute time poverty, defined as spending more than 12 h on paid work, unpaid work and commuting, with almost 3 out of 5 women in the sample being time poor. The relative time poverty measure, which classifies

TABLE 1 Mean hours per day: paid work, household work, commuting time and total hours.

	All mean	Female mean	Male mean	Gender difference t-tests ^a
Daily hours, including those recording zero hours:				
Hours at paid work (per working day) <i>n</i> = 683	8.96	8.98	8.94	0.03
Hours in household work (mean over 7 weekdays) <i>n</i> = 790	1.73	1.92	1.54	0.37**
Hours commuting to/from work <i>n</i> = 791	1.70	1.63	1.76	−0.13
Daily hours, excluding those recording zero hours:				
Hours at paid work (per working day) <i>n</i> = 648	9.44	9.39	9.50	−0.10
Hours in household work (mean over 7 weekdays) <i>n</i> = 680	2.01	2.20	1.81	0.39**
Hours commuting to/from work <i>n</i> = 564	2.38	2.40	2.36	0.04
Total daily hours in the working day, including those recording zero hours ^b :				
Time commuting, at paid work and in household work <i>n</i> = 680	12.40	12.73	11.92	0.80***
Total mean daily hours in the working day, excluding those recording zero hours ^c :				
Time commuting, at paid work and in household work <i>n</i> = 676	12.39	12.73	12.06	0.66**

^aSignificance in difference in means t tests by gender.
^bExcludes observations with missing data for any component.
^cExcludes if zero values reported for both paid and household work hours.
****p* < 0.01. ***p* < 0.05. **p* < 0.10.

TABLE 2 Absolute and relative time poverty measures.

Measures	All mean	Female mean	Male mean	Gender difference tests
<i>Absolute time poverty</i>				
Hours commuting + paid and household work > 12 n = 680	0.55	0.58	0.52	0.06**
<i>Relative time poverty</i>				
Hours commuting + paid and household work >1.2 × median n = 680	0.21	0.24	0.18	0.06**
<i>Time and income poverty</i>				
I: Hours commuting + paid and household work > 12 and earnings ≤ median income category n = 532	0.36	0.41	0.31	0.10***
II: Hours commuting + paid and household work >1.2 × median and earnings ≤ median income category n = 532	0.15	0.18	0.12	0.06**

Note: Significance in difference in means t tests by gender:

****p* < 0.01.***p* < 0.05.**p* < 0.10.

individuals spending more than 1.2 times the median on paid work, unpaid work and commuting, confirms higher levels of time poverty among women. It is mostly unpaid work that makes women time poorer than men; the differences in time poverty if unpaid household work is excluded are small and insignificant.

The indicators of both time and income poverty interact the indicators of absolute and relative time poverty with an indicator recording incidence of income at or below the category of monthly income including the median observation (between GHS1001 and GHS2000). Table 2 shows that women were more likely to be both time and income poor by either measure.

4.1.2 | Mode of commute

Women's marginally longer commuting times are likely to reflect their significantly higher use of public transport, specifically trotros: 36.75% of sampled women compared with 29.19% of men (see Appendix S1: Table A3). Women were also more likely to use taxis than men. Men were more likely than women to use private transport (a car or motorcycle) and significantly more likely to use company transport (3.97% of women compared with 9.63% of men).³

Travelling by trotro is the most economical mode of travel but is rarely comfortable. Figures 1–3 illustrate the participants' responses to questions about safety, comfort and tiredness in relation to travel by trotro and, for comparison, by taxi. The majority of the sample viewed trotros as unsafe, uncomfortable and tiring. More than half disagreed with the statement that they felt safe when travelling by trotro (60.7% of men and 54.8% of women). More than three out of five respondents felt uncomfortable using trotros (62.7% of men and 65% of women) or arrived tired having travelled by trotro (65% of men and women). When they used taxis (private or shared), fewer respondents felt unsafe (25.8% of men, 33.8% of women) uncomfortable (26.6% of men, 30.8% of women) or arrived tired (37.9% of men, 37.1% of women). Whilst women were more likely to report they were uncomfortable when using either form of transport and were more likely than men to feel unsafe in a taxi, they were less likely than men to feel unsafe using trotros, perhaps reflecting their more frequent usage of this form of transport or because the higher number of passengers provides some security against crime including robbery. Nevertheless, women reported

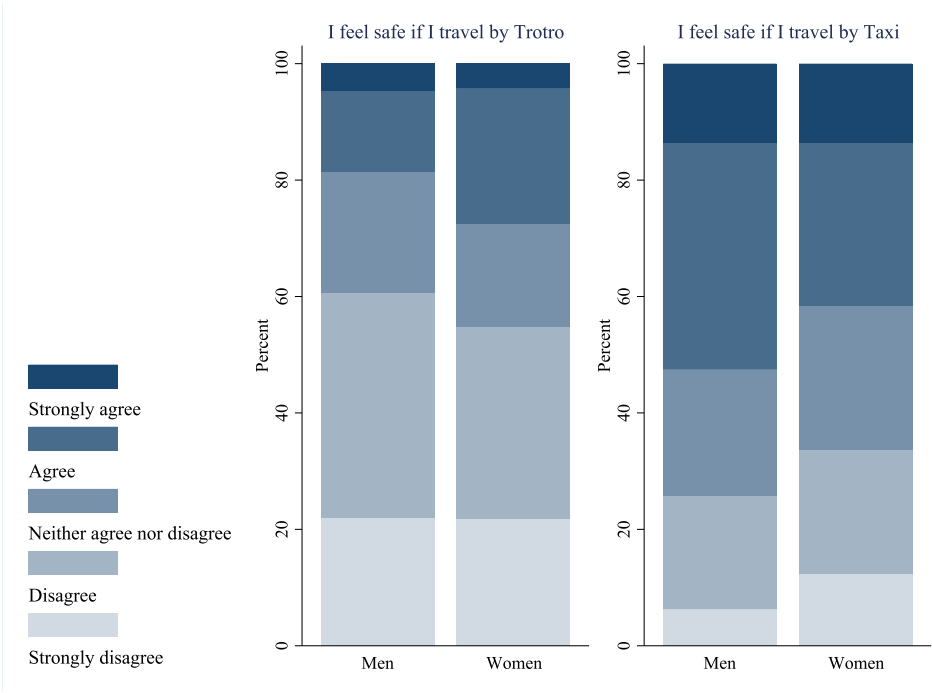


FIGURE 1 Mode of transport and safety. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

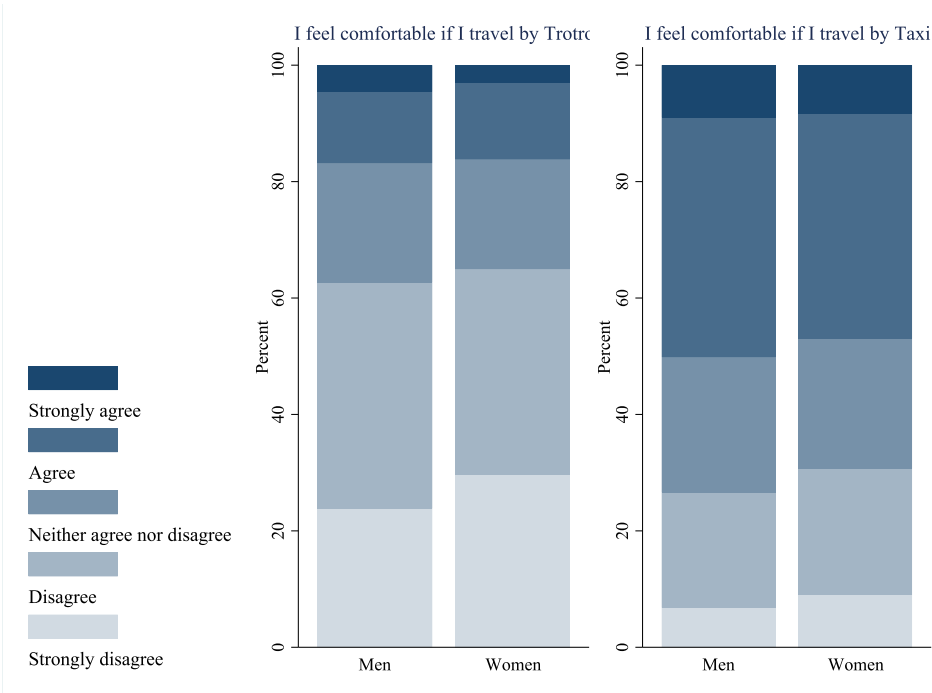


FIGURE 2 Mode of transport and comfort. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

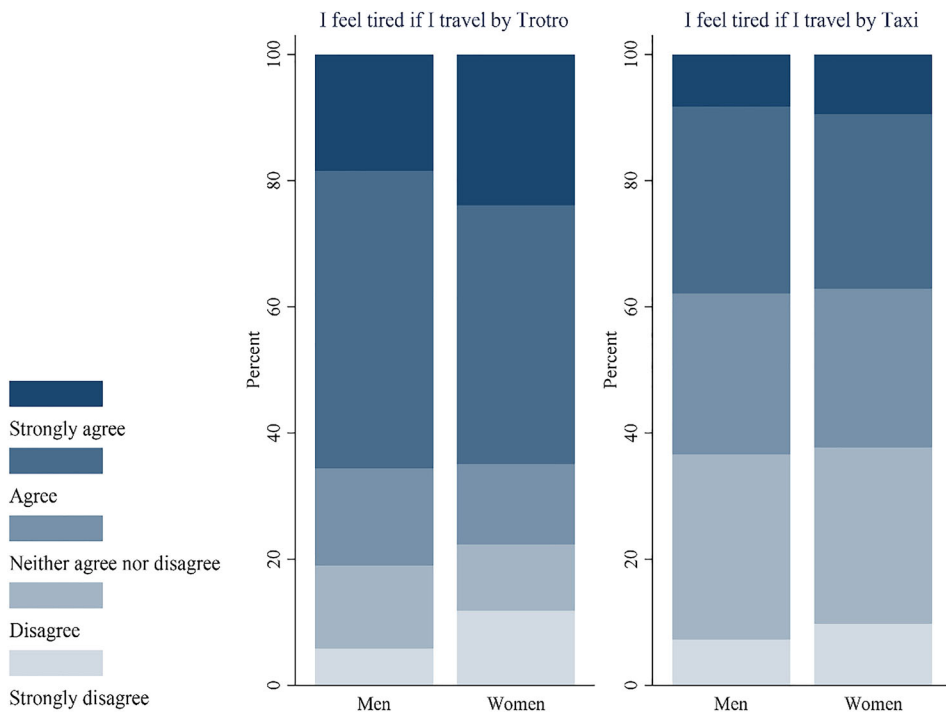


FIGURE 3 Mode of transport and tiredness. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

significantly lower satisfaction with mode of transport than men (Appendix S1: Table A3). Their dissatisfaction with mode of travel to work is likely to reflect their higher use of public transport, that is, trotros.

4.1.3 | Time poverty and satisfaction with domains of life

As discussed earlier, since time poverty implies insufficient time for rest and leisure, it is expected to have a negative influence on life satisfaction particularly in domains of life associated with leisure time and work–life balance. Table 3 shows that satisfaction with amount of leisure time and leisure time use are negatively and significantly correlated with the length of the working day and the indicator of absolute time poverty. Satisfaction with leisure time is also weakly and negatively correlated with the indicator of relative time poverty. This is consistent with long working days being traded off against leisure time, presumably for material gains from income, and long commutes adding to the length of already long working days. In contrast, satisfaction with job, health and family life are not linked to time poverty suggesting other factors in these domains can compensate for long working days, for example, higher earnings.

Table 4 shows that women's satisfaction with leisure time and leisure time use is lower than that of men (at $p < 0.10$). However, there are no significant gender differences in satisfaction with the individual's job, health or family life. These results are consistent with research that reports a trend for relatively lower subjective well-being among women (Stevenson & Wolfers, 2009), particularly in sub-Saharan Africa (Graham & Chattopadhyay, 2013). They contrast evidence that women have higher job satisfaction and overall life satisfaction, the so-called 'paradox of the contented female worker' (Asadullah & Talukdar, 2019). For example, Asadullah and Talukdar (2019) report that among employees in Bangladesh's ready-made garment sector, women were more satisfied with life than men, although, like us, they do not find significant gender differences in satisfaction with work life (job) or health.

TABLE 3 Correlations between time poverty and domains of life satisfaction.

Satisfaction with: Time poverty measures	Job	Health	Family life	Amount of leisure time	Use of leisure time
<i>Hours in the working day</i>					
Time commuting, at paid work and in household work	0.025	0.005	0.02	−0.186***	−0.182***
<i>Absolute time poverty</i>					
Hours commuting + paid and household work > 12	0.015	0.007	0.002	−0.185***	−0.192***
<i>Relative time poverty</i>					
Hours commuting + paid and household work > 1.2 × median	−0.042	0.025	0.004	−0.072*	−0.062

Note: Satisfaction with leisure time and use: 1, strongly dissatisfied; 2 dissatisfied; 3 somewhat dissatisfied; 4 neither satisfied/dissatisfied; 5 somewhat satisfied; 6 satisfied; 7 strongly satisfied.

Satisfaction with job, health and family life: 1 strongly dissatisfied; 2 dissatisfied; 3 neither satisfied/dissatisfied; 4 satisfied; 5 strongly satisfied.

Note: Reported figures are Pearson correlations:

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

TABLE 4 Gender and domains of life satisfaction.

Measures	All	Female mean	Male mean	Gender difference tests ^b
Satisfaction with job $n = 626$	4.83	4.79	4.87	−0.08
Satisfaction with health $n = 643$	5.55	5.49	5.60	−0.11
Satisfaction with family life $n = 638$	5.56	5.52	5.58	−0.06
Satisfaction with amount of leisure time $n = 649$	4.44	4.33	4.54	−0.21*
Satisfaction with use of leisure time $n = 654$	4.65	4.56	4.74	−0.18*

Note: Significance in difference in means t-tests by gender:

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

Asadullah and Talukdar (2019:802) suggest that one explanation for the paradox is that women sort into jobs that support work–life balance. However, the figures in Table 4 suggest that this is not the case for the women in our sample. Their lower satisfaction with leisure time and leisure time use, perhaps reflecting their longer working days, suggests lower satisfaction with work–life balance (but not their actual jobs).

Regression analysis is used to further investigate the relationship between time poverty and life satisfaction. As explained earlier, in the regression estimates of equation (1), the dependent variable, *LifeSat*, is constructed using factor analysis and captures life satisfaction over all five domains: job, health, family life, leisure time and leisure time use. The independent variables include a measure of the length of the working day or a measure of time poverty and control for mode of commute, gender and other individual characteristics. The results of the regression analysis are shown in Table 5. Model (i) includes the hours-based measure of the length of the working day, model (ii) includes the binary indicator of absolute time poverty, model (iii) includes the indicator of relative poverty and models (iv) and (v) include, respectively, the interaction between absolute and relative time poverty and income poverty.

The results show that the length of the working day and time poverty, particularly absolute time poverty (the working day longer than 12 h) and the incidence of time and income poverty, are all negatively related to the constructed index of life satisfaction. However, whilst women report lower satisfaction in two of the five domains represented in the index of life satisfaction (Table 4), gender is not significantly associated with the overall index in the

TABLE 5 Regression results: Life satisfaction and time poverty.

Dependent variable: index of life satisfaction					
Independent variables	(i)	(ii)	(iii)	(iv)	(v)
Hours in the working day ^a	−0.0296*** (0.0114)				
Absolute time poverty ^b		−0.1979** (0.0833)			
Relative time poverty ^c			−0.1761* (0.1021)		
Time and income poverty I ^d				−0.2365** (0.1043)	
Time and income poverty II ^e					−0.2459* (0.1359)
<i>Individual characteristics</i>					
Female gender	−0.0396 (0.0821)	−0.0580 (0.0815)	−0.1206 (0.0933)	−0.0531 (0.0822)	−0.1305 (0.0932)
Age	0.0082** (0.0036)	0.0079** (0.0036)	0.0099** (0.0042)	0.0083** (0.0037)	0.0110*** (0.0042)
Trotro is the main commute mode	−0.2592*** (0.0944)	−0.2731*** (0.0939)	−0.1730 (0.1097)	−0.2896*** (0.0937)	−0.2028* (0.1079)
Does not commute	−0.0288 −0.0396	−0.0480 −0.0580	0.0316 −0.1206	−0.0235 −0.0531	0.0276 −0.1305
Controls for household membership; living with children, spouse or alone	Yes	Yes	Yes	Yes	Yes
Controls for employment status; employee, self-employed with/without employees	Yes	Yes	Yes	Yes	Yes
Constant	0.2357 (0.2019)	0.0655 (0.1832)	−0.1275 (0.2331)	−0.0163 (0.1822)	−0.2448 (0.2315)
Observations	475	475	475	380	380
R-squared	0.073	0.071	0.066	0.074	0.069
F-statistic	3.04***	2.94***	2.71***	2.44***	2.27***

Note: Reported figures are coefficients. Standard errors in parentheses.

^aAs in Table 2, defined as the time commuting, at paid work and in household work.

^bHours commuting + paid and household work > 12.

^cHours commuting + paid and household work > 1.2 × median.

^dHours commuting + paid and household work > 12 and earnings < median income category.

^eHours commuting + paid and household work > 1.2 × median earnings < median income category.

*** $p < 0.01$. ** $p < 0.05$. * $p < 0.1$.

estimated regressions. Nevertheless, relying on trotros as the main mode of commute is negatively associated with life satisfaction. Age and life satisfaction are positively associated. None of the included controls for household composition or employment status were ever significant.

Overall, the survey findings indicate that women are more time poor than men when unpaid household work and commuting time are considered part of the working day. The length of the working day, the measures of

absolute and relative time poverty and the indicators for time and income poverty are all negatively associated with the index of life-satisfaction well-being in the estimated regressions. Whilst gender is not significant in Table 5, since women are more likely to be time poor and income poor and they are more likely to use trotros to commute to work, there is an indirect effect of gender on life satisfaction through time and income poverty and mode of commute. In the next section, the data from the FGDs are used to explore in more depth the pathways underlying these associations among long working days, commuting and well-being.

4.2 | Qualitative findings: understanding time poverty and its consequences

Analysis of the qualitative data provided insights into the long working days and often long and arduous commutes of the participants and how these impacted their lives. Four related themes were identified: the lack of choice that women experienced in relation to paid employment; the experience of long working days; the nature of the commuting experience; and the impact of long working days and long commutes on family life and health. The reported discussions highlight the constrained routines of work and commuting that impact the quality of working and family life, extending understanding of linkages among time poverty, commuting and well-being.

4.2.1 | The need to work

In Ghana, women's traditional involvement in household production has informed normative assumptions that both men and women work to share the financial responsibilities associated with managing the home. For some female participants, paid work is essential in supplementing men's income, whilst it allows others to have their own income and acts as insurance for their future. Akua, a market trader in Makola, commented that:

‘As a woman, I have to work and save for the future because it would get to a time when I would be unable to work, and it is then that I can fall on the savings made during my working days. Women cannot rely on their husbands only, otherwise they would not be able to cater for their children and that is why women would also have to take up some form of economic activity.’

The option of not earning is not considered, and due to the limited job market opportunities, looking for alternative employment closer to home is only contemplated if commuting-related health problems develop, such as being involved in traffic accidents or experiencing extreme stress and its consequences: Abena, a professional woman in Tema, commented:

‘It is difficult to get a job and so one is fortunate to acquire one. Distance does not matter anyway. There is no other choice than to wake up early, get to work on time, close from work and commute home. No pain, no gain.’

4.2.2 | The experience of long working days

The majority of the participants reported waking times were between 3.00 AM and 5.30 AM, even those who start working at 8.00 AM or 9.00 AM. Some participants, in order to arrive at work on time, leave home very early to avoid the rush hour congestion, reaching workplaces an hour or more before the start of work. Ama, from Tema, recounts her typical day: she wakes up at 4.30 AM, leaves for work at 5.20 AM, and arrives at the office at 6 AM.

She should finish work at 4 PM but usually leaves the office around 6 PM because there are always extra jobs to do. She arrives home between 8.30 and 9.00 PM, and goes to bed between 10 PM and 1 AM.

Some of the earliest risers were women traders who commute weekly to the large markets in Madina, Ashaiman and Makola to bulk-buy goods (hair care products, second-hand clothing and household goods), which they sell in their local neighbourhoods either as itinerant traders with babies on their backs or in shops in close proximity to their homes, operating late and weekend opening hours. Other early risers are women who prepare food (*banku*, *kokonte* and porridge) for sale to workers. These women have the longest working days, which they combine with family caring responsibilities. Flora's day is an example: living and working in Ashaiman, she wakes up around 3.00 AM to start preparing fish, which she sells on the street, and finishes by 5.00 PM. She gets tired because she works 6–7 days per week, but because she has certain financial obligations in the form of loan repayments, she tends to work even harder without thinking of how tired she becomes. The participants with the greatest time flexibility were those who were self-employed, had short journeys to work within their neighbourhoods and/or commuted long distances infrequently to purchase goods. However, time flexibility does not necessarily lower the risk of time poverty. Women, especially, have long working days and often work into the night, reflecting the nature of their work and patterns of demand. The participants talked of closing shops between 10 PM and midnight, once 'there were no more customers.'

In addition to time in paid work and commuting, the participants also talked about how the time they spent in unpaid household work contributed to their working day. Time in tasks undertaken at home, including childcare, may not always be considered as work, especially if it takes place in what otherwise might be thought of as leisure time (Folbre, 2006). For women, early starts to the day are necessary, not only to accommodate commuting times but also to undertake necessary caregiving duties before they leave home for their paid employment. Some parents benefit from schools opening from 7 AM, allowing them to drop children off before work. Older siblings and fathers may help to take children to and from school, but the responsibility more often remains with mothers who then need to pay for pre-school and after-school care or for school buses. Women with parental support and middle-class women, who can pay for childcare, often have house helps but are still early risers. Women reported work and commuting fatigue being compounded by household chores and caring responsibilities. Popular perception associating household work with weak masculinity is reported to hinder men helping with the full range of household chores. Sarah commented:

'Some men do not help with the household responsibilities but always want to be pampered because they are tired from the day's activities accompanied with the stressful traffic of commuting to and from work.'

4.2.3 | The experience of commuting

Commuting in congested traffic can generate stress which can be aggravated by modes of transport that are sometimes overcrowded, poorly maintained and unsafe. The most convenient and secure are owner-occupied vehicles and shared taxis. The comments made about trotros during FGDs complement the survey results reported above. Despite the flexibility and popularity of trotros, FGD participants reported injuries and loss of goods. Trotro travel times are increased by drivers having to fill up their vehicles with passengers before starting a journey, the frequent stopping to pick up and drop passengers, and the slowness of the vehicles due to the poor road conditions. Long waits (often up to an hour in rush hour) for trotros mean women sometimes take shared taxis (Uber/Bolt/Yango) or motorbikes (*okadas*) to complete their journeys. These more expensive options add to travel costs, and motorbikes carry additional risks as passengers often travel without helmets and are exposed to burns from the vehicle exhaust and a higher risk of accidents. One woman claimed to 'pre-assess the rider from his speech to ensure she is going to

be safe during the ride before getting on' (Mary, Ashaiman). Setting out for work whilst it is still dark also poses threats for women on their own as many see themselves as vulnerable to crime.

Most women in the focus groups were married with children. They frequently referred to the difficulty of commuting, working, and travelling with children on crowded trotros. Some women pay extra for their children's seats on trotros or for private school buses; others cut short their working day to collect school age children. Journey time is often extended by accidents, poor quality vehicles and inclement weather. Rain and flooding from inadequate drainage systems can prolong travel times, incur additional travel costs as taxi drivers raise fares, and may halt work. All of these factors render travel by trotro particularly impactful for both the length of the working day and well-being, and these impacts are highly gendered due to the prominence of this mode of transport among women.

The length of the working day and its impact on home life also depend on the return commute from paid work to home. Women working in either the informal or the formal sector away from their neighbourhoods generally have less flexibility with the return journey, although in the latter case this depends on employers, and increasingly whether they accept home working or have parent-friendly policies. To fulfil their caring responsibilities, female market traders often started the return journey before the evening rush hour. Conversely, women workers in the formal private or public sector, with fixed working hours, had little alternative but to leave work during the rush hour. Men and some middle-class women also reported leaving work later, engaging in other work activities, such as studying, teaching evening class, or visiting friends and family living close to workplaces before travelling home post-rush hour. For example, according to Malik in the Cantonments:

'There is a group of businessmen who used to hang out at Osu after work but now do so at the mosque ... They do this because they live far away and have to stay at the mosque to avoid the heavy traffic on their way home. They pray and eat before leaving to their various homes. Others do not go home at all during working days because of the nature of the traffic and only go home after work on Fridays.'

4.2.4 | The impact of long working days on family life and health

Both men and women reported adverse impacts of long working days and long commutes on family life. Hafiz at the Airport Mosque commented:

'Leaving home at 4 a.m. to start work at 7–8 a.m. makes one have less time to spend with children. Even when work closes at 5 p.m., they would get back home between 9–10 p.m.'

One respondent spoke of his inability to support his pregnant wife in the evening, as she is asleep by the time he reaches home. Some women reported that the only time they spent with their husbands was sleeping together or on Sundays: 'a movie on TV in the bedroom whilst the kids watch TV or play outside' (Ruth, Accra Central). In another case, tiredness prevented a woman from 'honouring her husband's invitation to go for fun' (Afua, Accra Central). According to Mercy, a market trader, 'some of the women had market boyfriends since they live most of their lives at work' (Accra Central). Men and a few middle-class women were concerned about the lack of quality time with their families. In these conversations, quality time was sometimes equated with women's caregiving to their child(ren), and there was a suggestion that time in paid work and commuting crowded out this time. The FGDs suggested that leisure time in a pure sense was poorly understood due to the time constraints faced by most participants. Both men and women enjoyed the social encounters gained through religious activities. Many participants considered attending Church on Sundays or Mosque on Fridays as leisure activities, emphasizing that there was limited time for other forms of leisure such as sports and visiting cinemas.

Time poverty means that for some commuters, the only time they have to spend with their family is after Church or Mosque, although some women use that time to multi-task, preparing meals for the coming week, or to assist family members who are traders. Muslim women used Friday (after prayers) as a time to rest, and in some cases rested during the weekend. Two men reported using the evenings to study for higher qualifications, attending evening classes straight after work and studying at home after their families had gone to sleep.

As noted earlier, time poverty was experienced differently across socio-economic groups. Wealthier and more educated people have sometimes been found to be more time poor (Goodin et al., 2005; Lawson, 2008; Orkoh et al., 2020). Class and formal sector employment were factors that linked positively to the amount and quality of leisure time available among the women in FGDs. For example, although women in formal employment may have longer commuting times, they can have the whole weekend for socializing and find time for 'weddings, funerals, engagement events and clean up exercises'. For women in the informal sector, days that were free from paid work were often used to prepare for the week ahead. However, Makola market women, who exercised some flexibility in their working days, took the occasional weekday off. With little leisure time, women seem to benefit from the sociality of the workplace. According to one woman from Ashaiman, 'some women feel sick at home but get well immediately when they arrive in the workplace'.

In addition to the lack of leisure time, a range of physical and psychological health impacts were reported. Women frequently referred to the impacts of the commute and arduous work on their physical health, citing physical harm (injuries) from accidents whilst commuting, breathing problems from air pollution, and damaged clothing from taxis and trotros and roads in poor condition. Many of the women working in markets also reported back pain and tiredness from head portorage. Mental health impacts were common, including stress caused by overcrowding, long waiting times and journeys and reckless driving. Class and wealth clearly had a moderating influence on health implications. For example, for middle class women, car ownership gives them more control over the working day, although they still experienced stressful commutes.

Tiredness, which has both a physical and psychological dimension and reflects the negative impacts of long working days and challenging commutes that lengthen the working day, was also a frequent state. This resulted in occurrences of falling asleep on morning trotros and at work. Insufficient sleep is frequently mentioned by participants as illustrated in the case of an unmarried and childless female event planner who stated: 'sleep is vital but lately we don't get enough sleep like we are supposed to get ... for the past few years, I haven't had eight-hour sleep, no!' She often plans to take a shower and go straight to bed upon her arrival at home from work but says that she is often engaged with other household activities and therefore ends up sleeping around 12–1 AM. She wakes up at 4 AM, no matter what time she went to bed, as otherwise she would be late for work. She finishes work at 7.30 PM and sometimes feels so drained that she takes a 30-min nap during her lunch break, which helps her to carry on for the rest of the day. When asked about levels of satisfaction and well-being she replied:

'At the end of the day, it's like you've sold yourself to the work just so that you can get the money ... so, for satisfaction, no! For most of us, it's like we've not gotten there yet, maybe we'll get there.'

5 | SUMMARY AND CONCLUSION

In this study, we have explored the dynamics of men and women's working lives in the Greater Accra Metropolitan Area in Ghana, contributing to understanding of time poverty and the well-being effects of lengthy working hours and challenging commutes in an urban setting. As outlined below, the use of mixed methods to gather both quantitative and qualitative data offer important insights into this area.

Analysis of the survey data indicated that women were more time poor than men once unpaid household work and commuting time were considered, and they were more likely to be both time and income poor. Women devote on average almost 25 min per day more to household work, and when individuals who do not commute are excluded

from calculation, women also report marginally longer commutes than men. Time poverty was also found to be associated negatively with an index of life satisfaction and in particular with satisfaction with leisure time and leisure time use. Women reported lower satisfaction in these domains and part of the reason could be their longer working days. The FGD analysis identified four themes that provided insights on the associations between longer working days, commuting, gender and well-being identified in the quantitative analysis. The impacts identified were through the lack of choice about participation in paid work; the experience of long working days that often included long and uncomfortable commutes and, for women especially, time spent in unpaid household caregiving and chores; and consequences for family life, leisure time, health and well-being. The focus group data provides important insight, suggesting that whilst time poverty is an important influence upon subjective well-being, this may be mediated by the level of empowerment in decision-making regarding working and domestic life (Hossain et al., 2019) and the nature of the commute.

The survey data indicated that women's commutes were more likely to involve public transport, especially trotros, and this was confirmed in the focus groups. Women also reported lower levels of satisfaction with the transport mode of their commute, and part of the reason is likely to lie in greater discomfort associated with travelling by trotro. The focus group participants also highlighted negative physical and psychological health impacts associated with travel by trotro. Two different groups with travel-related issues stand out in the FGD data: those who have long daily commutes and those who work closer to home but commute to purchase goods. Both groups include men and women with long working days. For these commuters, the length of the commute and the stress associated with lack of control over travel to/from work, risk of physical injury, and potential damage to or loss of property, meant lower quality of life. Those who commute daily are resigned to a long working day, and its impact on their quality of life is considerable. They recognise that their lives could be made easier with improved transportation.

The survey data indicated that women's higher incidence of time poverty was mainly due to their longer hours of household work. This finding was confirmed in the analysis of the FGDs where women were also more likely to raise issues around unpaid domestic labour with many of them having very little time for leisure, having to get up very early and go to bed late to fit in household chores. Thus, their excessive or double burden of work (Arora, 2015; Hossain et al., 2019) causes them to suffer a 'double squeeze' on their time resulting in significant time poverty and lower subjective well-being.

Individuals and households at all income levels can experience time poverty as they engage in long hours of market and non-market work and have to make choices between various activities (Kes & Swaminathan, 2006; Stevano, 2019). For example, the self-employed and those working from home, especially women, can be time poor in different ways, both having to work long hours to gain a liveable income. As highlighted in Stevano's (2019) research in Mozambique, the consequent prioritisation of some activities over others can have critical implications for both consumption and production. Time use is only part of the argument, the working day is a complex construct and the quality of work, both paid and unpaid, can mitigate or reinforce the negative effects of time poverty which is recognised as a more important problem in households that are also income poor (Gammage, 2010; Orkoh et al., 2020; Walker, 2013). Some previous research has also found that time poverty and income poverty reinforce each other (Arora, 2015), although other studies report that wealthier people are more time poor (Goodin et al., 2005; Lawson, 2008).

Our research provides further evidence that life satisfaction is lower for those who are both time and income poor and that women are more likely to experience a combination of these forms of poverty. The inclusion of commuting time and mode particularly in an urban SSA context also helps to inform research on gender and time poverty. However, the generalisability of the findings is limited by the study sample. The participants were recruited from particular locations in Greater Accra and may not be representative of the wider GAMA. Whilst the sample for the focus groups includes a mix of occupations, female market traders are overrepresented and men were underrepresented. A further limitation is that the time use data collected did not capture variability in hours of daily paid and unpaid work, multi-tasking or detail on other activities. Future research would benefit from recruitment of a broader

based sample that includes men and women from a wide range of occupations and locations. More detailed time use data recording daily activities over a longer period would also help to provide more accurate records of differences in the long working days of women and men in urban SSA.

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DATA AVAILABILITY STATEMENT

The participants of this study did not agree for their data to be shared publicly. Computer code used in the data analysis is available from the authors on request.

CONFLICT OF INTEREST

There are no competing interests to declare.

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ENDNOTES

¹ After cleaning, the number of usable surveys was reduced.

² Only one factor had eigenvalue greater than one, and therefore, one factor was retained. KMO value of approximately 70 further confirmed that a factor analysis of the variables is good.

³ Men are higher earners who, irrespective of gender, were more likely to commute to work using more comfortable private transport but did not have shorter commutes.

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