Evaluation of obstetric outcomes for women in commuter versus non-commuter marriages: A comparative study

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Abstract

Objectives: The study aims to determine obstetric outcomes for women in commuter marriages (CoMs) compared to women in non-CoMs, as well as the influence of living-in-companions on the obstetric outcomes.

Methods: A prospective, multicentre, comparative study was conducted among antenatal clinic attendees in CoMs (160 women) and non-CoMs (160 women). Following consent, participants were recruited and monitored from antenatal booking until six weeks postpartum. The primary outcome measure was the obstetric outcomes (miscarriages, antenatal illness-associated hospital admissions, gestational ages at delivery, pregnancy-induced hypertension, gestational diabetes, and birth weights), while the secondary outcome measure was the influence of living-in-companions on the obstetric outcomes, which was measured by comparing the outcomes in women with those without living-in-companions. Data analysis was conducted using chi-square and t-tests, as applicable; a \( p < 0.05 \) was significant.

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Results: The commuting partners were males in the majority (n = 151; 94.4%), due to work-transfer (n = 76; 47.5%) or new employment (n = 60; 37.5%). There was a statistically significant association between CoM and delay before index pregnancy (n = 27 vs. 15; p = 0.047), higher mean gestational age at booking (22.2 ± 7.70 years vs. 19.9 ± 6.93 years; p = 0.005), higher antenatal illness-associated hospital admission (n = 39 vs. 19; p = 0.004), preterm delivery (33.8% vs. 6.9%; p = 0.001), and low birth weight (16.3% vs. 5.0%; p = 0.001). The mean gestational age at delivery (35.1 ± 2.53 years vs. 38.0 ± 2.38 years, p = 0.001) and birth weight (2445 ± 749 vs. 3146 ± 1646 g, p = 0.043) were lower and statistically significant among women in CoMs without than among those with living-in-companions.

Conclusion: CoM was associated with adverse obstetric outcomes; however, living-in-companions appeared to ameliorate these adverse outcomes.

Keywords: Commuter marriage; Marriage; Obstetric effect; Pregnancy complications; Pregnancy outcome; Unmet needs

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Introduction

Commuter marriage (CoM) refers to a relationship in which one of the partners lives in the family home while the other shuttles between the family residence and another address in another city or country.1,2,3 Globally, workers’ mobility has increased as they relocate to places where jobs are available4 in response to wage differences and due to a willingness to relocate.2,3 For some individuals, migration may not be possible due to immigration and labour laws, pattern and type of job availability, opportunities for setting up families in a new environment, and the means to facilitate this movement. For such individuals, commuting becomes a substitute for migration, making the decision on where to live dependent on economic benefits.5 CoM has been associated with a desire for self-expression, personal satisfaction, financial benefits, and independence.6 However, it has been linked to unfavourable psychological, social, and family life disruptions.7–10 although available data are limited.

A literature search revealed no article that specifically evaluated the effects of CoM on pregnancy outcomes; this raises concern about pregnant women’s experiences in such marriages. Evidence that fills this knowledge gap may provide a scientific approach to counselling couples and aspiring couples on planning for pregnancies and ensuring family stability and cohesion. Thus, we hypothesise that CoMs will exert negative effects on pregnant women and pregnancy outcomes that are similar to those reported for non-pregnant women and their families. This is a pilot study to evaluate obstetric outcomes for women in CoMs compared to those for women in non-CoMs, as well as the influence of living-in-companions on those outcomes.

Materials and Methods

Study setting

This was a multicentre study at four public health facilities (two tertiary, two secondary facilities) in Ilorin, north-central Nigeria. These hospitals have a full complement of medical consultants (obstetricians, neonatologists, anaesthesiologists, and haematologists), nurses, and other supportive staff. A full range of services, from antenatal clinic, antepartum, intrapartum, and postpartum to neonatal and surgical services, is available at the study sites.

Study design

This is a prospective, comparative study.

Study participants

The participants comprised pregnant women who presented to book index pregnancy at the study sites’ booking clinics. The women were categorised into those in CoMs and those in non-CoMs.

Inclusion and exclusion criteria

Pregnant women who presented for booking at the antenatal clinic, consented to participate in the study, and were willing to continue care until six weeks postpartum were included in the study. However, non-pregnant women and pregnant women who were unwilling to deliver at the study sites or keep the six-week postnatal visit schedule were excluded from the study. To exclude confounding variables, the participants were matched for age to reduce the effect of maternal age, while those with higher risk pregnancy, defined as the presence of chronic medical disorders (hypertension, diabetes mellitus, chronic renal disease, HIV infection, and haemoglobinopathy) or previous unexplained intrauterine foetal death, were excluded from the study.

Sample size determination

The sample size was calculated using a formula for sample size for a comparative study10:

\[ n = \frac{z^2pq}{d^2} \]

where:
- \( n \) = sample size
- \( z \) = standard normal deviation (a constant, which is 1.96 at a 95% confidence interval)
- \( p \) = prevalence of CoM in the study area, as 26.3%\(^{11} \times 0.26 \)
- \( d \) = observed difference at a 5% level of significance = 0.05
- \( q \) = 1 – \( p \) = 1 – 0.26 = 0.74

For women in non-CoMs, as well as the influence of living-in-companions on those outcomes.
Commuter marriage among pregnancy women

\[ n = \frac{1.96^2 \times 0.26 \times 0.74}{0.05^2} = 295 \]

With provision for a 10% attrition rate, the minimum sample size was 295 + 29 = 324.

Study procedure

All pregnant women at each antenatal booking clinic were informed about the study during a health education session, and those who were willing to participate were screened for eligibility using the study criteria. Informed consent was obtained from eligible women who were recruited into the study. The participants were categorised into two groups of either CoM or non-CoM, based on their family experiences. The average attendance at the booking clinic was 80 pregnant women; recruitment was over a 12-week period, while a maximum of 30 women were recruited at each booking clinic. All the participants were followed up through pregnancy and delivery, until 6 weeks postpartum. A total of 324 pregnant women were recruited into the study; however, 320, comprising 160 women in CoMs and 160 in non-CoMs, completed the study and were included in the analysis.

For the purpose of this study, a CoM refers to one in which one of the partners resides in the study area while the other resides in another city or country but commutes intermittently to visit the family home. Identification numbers from 1 to 320 were generated for the study; at recruitment, the participants were assigned the lowest available number and categorised into the CoM and non-CoM groups by the recruiting officer. However, the research team members involved in the follow up were blinded from the participants’ group categorisation until at the end of the study.

Sampling method

The balloting method was used to recruit the participants.

Study outcome measures

The primary outcome measure was the obstetric outcomes (miscarriages, antenatal illness-associated hospital admissions, gestational age at delivery, pregnancy-induced hypertension, gestational diabetes, and birth weights). The secondary outcome measure was the influence of a living-in-companion on the obstetric outcomes, which was measured by comparing the outcomes for women with those for women without living-in-companions.

Statistical analysis

Data analysis was performed using Statistical Package for Social Sciences (SPSS, software version 21.0, IBM Chicago, IL, USA); frequencies were expressed as percentages, comparisons were drawn utilising the chi-square test or t-test, as applicable, while a p-value < 0.05 was significant.

Results

Compared to those in non-CoMs, women in CoMs were younger (95.0% vs. 83.8%; \( p = 0.001 \)) and mostly Primigravida (36.2% vs. 21.3%; \( p = 0.001 \)); they and their partners had higher levels of tertiary education, (73.1% vs. 50.6%; \( p = 0.001 \)) and (73.1% vs. 56.8%; \( p = 0.001 \)), respectively, which were statistically significant (Table 1).

Commuting partners were mostly male (\( n = 151, 94.4\% \)), mainly due to job-related transfers (\( n = 76, 47.5\% \)) or new employments (\( n = 60, 37.5\% \)). Commuting partners lived in rented apartments (\( n = 87, 54.4\% \)), visited their families weekly (\( n = 37, 23.1\% \)), fortnightly (\( n = 44; 27.5\% \)) or monthly (\( n = 61, 38.1\% \)), while 12.5% of the women in CoMs lived alone (Table 2).

There were more frequent occurrences of delay before index pregnancy (16.9% vs. 9.4%, \( p = 0.047 \)), a higher mean gestational age at booking (22.19 ± 7.0 years vs 19.9 ± 6.93 years, \( p = 0.005 \)), and more illness-related hospital admissions in index pregnancies (24.4% vs. 11.9%, \( p = 0.004 \)) among women in CoMs, all of which were statistically significant (Table 3).

CoM was associated with preterm delivery (33.8% vs. 6.9%, \( p = 0.001 \)), longer mean duration of labour

| Table 1: Bio-social characteristics of commuter and non-commuter marriages (n = 160). |
|-----------------------------|---------------------------------|-----------------|-----------------|
| Variables                  | Commuting (n = 160)             | Non commuting (n = 160) | χ²       | p-value |
|-----------------------------|---------------------------------|-----------------|-----------------|
| Age                         |                                 |                 |                 |         |
| ≤35                         | 152 (95.0)                      | 134 (83.8)      | 10.7            | 0.061   |
| >35                         | 8 (5.00)                        | 26 (16.2)       |                 |         |
| Level of education          |                                 |                 |                 |         |
| None                        | 0 (0.00)                        | 8 (5.00)        | 8.21            | 0.004   |
| Primary                     | 5 (3.10)                        | 29 (18.1)       | 19.0            | 0.001   |
| Secondary                   | 38 (23.8)                       | 42 (26.3)       | 0.27            | 0.605   |
| Tertiary                    | 117 (73.1)                      | 81 (50.6)       | 17.2            | 0.001   |
| Occupation                  |                                 |                 |                 |         |
| Students                    | 37 (23.1)                       | 16 (10.0)       | 9.97            | 0.002   |
| Unemployed                  | 20 (12.5)                       | 17 (10.6)       | 0.26            | 0.599   |
| Civil servant               | 31 (19.4)                       | 45 (28.1)       | 3.38            | 0.066   |
| Self employed               | 62 (38.8)                       | 75 (46.9)       | 2.16            | 0.142   |
| Private employer            | 10 (6.2)                        | 7 (4.4)         | 0.56            | 0.455   |
| Gravity                     |                                 |                 |                 |         |
| 1                           | 55 (34.4)                       | 29 (18.1)       | 15.2            | 0.001   |
| 2–4                         | 93 (58.1)                       | 97 (60.6)       | 0.21            | 0.649   |
| ≥5                          | 12 (7.5)                        | 34 (21.3)       | 18.7            | 0.001   |
| Parity                      |                                 |                 |                 |         |
| 0                           | 58 (36.2)                       | 34 (21.3)       | 8.79            | 0.003   |
| 1                           | 27 (16.9)                       | 41 (25.6)       | 3.66            | 0.055   |
| 2–4                         | 74 (46.3)                       | 77 (48)         | 0.11            | 0.736   |
| ≥5                          | 1 (0.6)                         | 8 (5.0)         | 5.60            | 0.018   |
| Previous miscarriage        |                                 |                 |                 |         |
| 0                           | 128 (80.0)                      | 124 (77.5)      | 0.30            | 0.585   |
| ≥1                          | 32 (20.0)                       | 36 (22.5)       |                 |         |
| Partners occupation         |                                 |                 |                 |         |
| Students                    | 14 (8.8)                        | 5 (3.1)         | 4.53            | 0.033   |
| Unemployed                  | 1 (0.6)                         | 0 (0)           | 1.00            | 0.316   |
| Civil servant               | 52 (32.5)                       | 53 (33.1)       | 0.01            | 0.905   |
| Self employed               | 82 (51.2)                       | 87 (54.4)       | 0.31            | 0.575   |
| Private employer            | 11 (6.9)                        | 15 (9.4)        | 0.67            | 0.413   |
| Partners’ level of education|                                 |                 |                 |         |
| None                        | 1 (0.6)                         | 6 (3.8)         | 3.65            | 0.056   |
| Primary                     | 12 (7.5)                        | 20 (12.5)       | 2.22            | 0.136   |
| Secondary                   | 30 (18.8)                       | 43 (26.9)       | 3.00            | 0.083   |
| Tertiary                    | 117 (73.1)                      | 91 (56.8)       | 9.29            | 0.002   |

* Numbers presented in table are frequencies (percentages).
* Significant at the 95% confidence level.
Table 2: Commuting history of couples in commuter marriages (n = 160).

| Parameter                          | n   | %   |
|------------------------------------|-----|-----|
| **Commuting partner**              |     |     |
| Male                               | 151 | 94.4|
| Female                             | 9   | 5.60|
| **Reason for commuting**           |     |     |
| Schooling                          | 24  | 15.0|
| Job transfer                       | 76  | 47.5|
| New employment                     | 60  | 37.5|
| **Commuting destination**          |     |     |
| Local                              | 155 | 96.9|
| Abroad                             | 5   | 3.10|
| **Duration of commuting**          |     |     |
| <1 year                            | 47  | 29.4|
| 1–2 years                          | 68  | 42.5|
| >2 years                           | 45  | 28.1|
| **Relationship of index pregnancy to commuting** | | |
| Before                             | 92  | 57.5|
| During                             | 68  | 42.5|
| **Where commuting partner lives**  |     |     |
| Rented apartment                   | 87  | 54.4|
| Sharing with a friend              | 73  | 45.6|
| **Frequency of visit by commuting partner to the family** | | |
| Weekly                             | 37  | 23.1|
| Fortnightly                        | 44  | 27.5|
| Monthly                            | 61  | 38.1|
| 2–3 months                         | 11  | 6.90|
| Holidays or leave                  | 7   | 4.40|
| **Visit to the commuting partner by partner at home** | | |
| Yes                                | 108 | 67.5|
| No                                 | 52  | 32.5|
| **Last visit to the commuting partner** | | |
| 1 Week                             | 38  | 23.8|
| 2 Weeks                            | 24  | 15.0|
| 3 Weeks                            | 15  | 9.40|
| ≥4 Weeks                           | 83  | 51.9|
| **Who is living with female partner at home?** | | |
| Alone                              | 20  | 12.5|
| Siblings/friends                   | 38  | 23.7|
| Children                           | 19  | 11.9|
| House help and children            | 21  | 13.1|
| Mother and children                | 30  | 18.8|
| Mother-in-law and children         | 32  | 20.0|

Table 3: Past obstetric history of women in commuter and non-commuter marriages.

| Parameter                     | Commuter (n = 160) | Non-commuter (n = 160) | χ²/ t-test | p-value |
|-------------------------------|--------------------|------------------------|------------|---------|
| **Previous pregnancy**        |                    |                        |            |         |
| Yes                           | 105 (65.6)         | 131 (81.9)             | 10.9       | 0.001*  |
| No                            | 55 (34.4)          | 29 (18.1)              |            |         |
| **Inter-pregnancy interval**  |                    |                        |            |         |
| ≤6 months                     | 14 (8.8)           | 28 (17.5)              | 1.71       | 0.190   |
| 6–12 months                   | 22 (13.8)          | 24 (15.0)              | 0.70       | 0.404   |
| 13–18 months                  | 14 (8.80)          | 23 (14.4)              | 0.37       | 0.543   |
| 19–24 months                  | 29 (18.1)          | 19 (11.9)              | 8.03       | 0.004*  |
| ≥25 months                    | 21 (13.1)          | 42 (26.2)              | 2.88       | 0.089   |
| **Outcome of last pregnancy** |                    |                        |            |         |
| Miscarriage                   | 12 (7.50)          | 16 (10.0)              | 0.02       | 0.876   |
| Voluntary termination         | 3 (1.90)           | 2 (1.30)               | 0.52       | 0.472   |
| Delivered the baby            | 90 (56.2)          | 113 (70.6)             | 0.02       | 0.876   |
| No previous pregnancy         | 55 (34.4)          | 29 (18.1)              | 8.34       | 0.001*  |
| **Any delay before this pregnancy** |          |                        |            |         |

(continued on next page)
Table 4: Labour delivery and postpartum events among commuter and non-commuter marriages.

| Parameter                                  | Commuter (n = 160) | Non-commuter (n = 160) | $\chi^2$ | p-value |
|--------------------------------------------|--------------------|------------------------|----------|---------|
| Yes                                        | 27 (16.9)          | 15 (9.4)               | 3.95     | 0.047   |
| No                                         | 133 (83.1)         | 145 (90.6)             |          |         |
| Gestational age at booking                 |                    |                        |          |         |
| 1st trimester                              | 21 (13.1)          | 38 (23.8)              | 6.01     | 0.014*  |
| 2nd trimester                              | 88 (55.0)          | 97 (60.6)              | 1.04     | 0.308   |
| 3rd trimester                              | 51 (31.9)          | 25 (15.6)              | 11.7     | 0.001*  |
| Mean ± SD                                  | 37.64 ± 2.58       | 38.51 ± 1.44           | -3.718   | 0.001*  |
| Antenatal illness-associated hospital admission |                    |                        |          |         |
| Yes                                        | 39 (24.4)          | 19 (11.9)              | 8.42     | 0.004*  |
| No                                         | 121 (75.6)         | 141 (88.1)             |          |         |
| Did husband follow you to hospital during index pregnancy |        |                        |          |         |
| Yes                                        | 92 (57.5)          | 103 (64.4)             | 1.59     | 0.208   |
| No                                         | 68 (42.5)          | 57 (35.6)              |          |         |

* Numbers presented in table are frequencies (percentages).
*Significant at the 95% confidence level.

Table 3 (continued)

| Parameter                                  | Commuter (n = 160) | Non-commuter (n = 160) | $\chi^2$ | p-value |
|--------------------------------------------|--------------------|------------------------|----------|---------|
| Yes                                        | 27 (16.9)          | 15 (9.4)               | 3.95     | 0.047   |
| No                                         | 133 (83.1)         | 145 (90.6)             |          |         |
| Gestational age at booking                 |                    |                        |          |         |
| 1st trimester                              | 21 (13.1)          | 38 (23.8)              | 6.01     | 0.014*  |
| 2nd trimester                              | 88 (55.0)          | 97 (60.6)              | 1.04     | 0.308   |
| 3rd trimester                              | 51 (31.9)          | 25 (15.6)              | 11.7     | 0.001*  |
| Mean ± SD                                  | 37.64 ± 2.58       | 38.51 ± 1.44           | -3.718   | 0.001*  |
| Antenatal illness-associated hospital admission |                    |                        |          |         |
| Yes                                        | 39 (24.4)          | 19 (11.9)              | 8.42     | 0.004*  |
| No                                         | 121 (75.6)         | 141 (88.1)             |          |         |
| Did husband follow you to hospital during index pregnancy |        |                        |          |         |
| Yes                                        | 92 (57.5)          | 103 (64.4)             | 1.59     | 0.208   |
| No                                         | 68 (42.5)          | 57 (35.6)              |          |         |

* Numbers presented in table are frequencies (percentages).
*Significant at the 95% confidence level.
Table 5: Comparison of pregnancy outcome among women in commuter marriage who lived alone and those with companions.

| Parameter                        | Living alone (n = 20) | Living-in-companion (n = 140) | χ²/t-test | p-value |
|----------------------------------|-----------------------|-------------------------------|-----------|---------|
| Gestational age at delivery (Mean ± SD) | 35.1 ± 2.53          | 38.0 ± 2.38                   | −5.05     | 0.001*  |
| Who accompanied you to hospital  |                       |                               |           |         |
| Alone                            | 1 (5.00)              | 5 (3.60)                      | 0.10      | 0.753   |
| Husband                          | 7 (35.0)              | 49 (35.0)                     | 0.00      | 1.000   |
| Sibling                          | 2 (10.0)              | 31 (22.1)                     | 1.58      | 0.209   |
| Mother                           | 3 (15.0)              | 19 (13.6)                     | 0.03      | 0.862   |
| Mother-in-law                    | 1 (5.00)              | 24 (17.1)                     | 1.96      | 0.162   |
| Neighbour                        | 6 (30.0)              | 12 (8.60)                     | 8.05      | 0.004*  |
| Onset of labour:                 |                       |                               |           |         |
| Spontaneous                      | 19 (95.0)             | 132 (94.3)                    | 0.02      | 0.897   |
| Induction                        | 1 (5.00)              | 8 (5.70)                      |           |         |
| Mode of delivery                 |                       |                               |           |         |
| Vaginal: Spontaneous             | 11 (55.0)             | 98 (70.0)                     |           |         |
| Vaginal: Instrumental            | 0 (0.00)              | 2 (1.40)                      | 0.22      | 0.636   |
| Caesarean: Elective              | 1 (5.00)              | 8 (5.70)                      |           |         |
| Caesarean: Emergency             | 8 (40.0)              | 32 (22.9)                     | 0.39      | 0.534   |
| Mean duration of labour (Mean ± SD) | 9.60 ± 1.68          | 11.8 ± 6.54                   | −1.06     | 0.290   |
| Birth weight (Mean ± SD)         | 2445 ± 749            | 3146 ± 1646                   | −1.87     | 0.043*  |
| Placenta weight (Mean ± SD)      | 553 ± 129             | 563 ± 144                     | −0.32     | 0.749   |
| Estimated blood loss (Mean ± SD) (ml) | 420 ± 383            | 509 ± 402                     | −0.66     | 0.511   |
| Postpartum haemorrhage           | 8 (40.0)              | 50 (86.2)                     | 0.043     | 0.836   |
| Puerperal complications          |                       |                               |           |         |
| Fever                            | 0 (0.00)              | 7 (5.00)                      | 1.17      | 0.280   |
| Offensive lochia                 | 4 (20.0)              | 22 (15.7)                     | 0.08      | 0.783   |
| Delayed onset of lactation       | 10 (50.0)             | 48 (34.3)                     | 1.23      | 0.232   |
| Inadequate quantity of breast milk| 2 (10.0)              | 13 (9.30)                     | 0.00      | 0.975   |
| Use of breast milk substitute    | 6 (30.0)              | 29 (20.7)                     | 0.66      | 0.416   |
| Duration of admission (Mean ± SD) (days) | 3.65 ± 1.87        | 2.81 ± 2.56                   | 1.42      | 0.159   |

Numbers presented in table are frequencies (percentages) or mean ± SD.
*Significant at the 95% confidence level.

Table 6: Regression analysis for determinants of obstetric outcomes among participants.

| Parameter                      | Coefficient | Standard error | 95% CI      | p-value | Beta |
|--------------------------------|-------------|----------------|-------------|---------|------|
| Maternal age                   | −0.458379   | 0.339026       | −0.1125 to 0.0209 | 0.177   | −0.11|
| Parity                         | 0.183574    | 0.129823       | −0.0719 to 0.4391 | 0.158   | 0.12 |
| Previous miscarriage           | 0.035510    | 0.205549       | −0.3689 to 0.4399 | 0.863   | 0.01 |
| Commuter marriage              | 0.684810    | 0.240378       | 0.2118 to 1.1578 | 0.005   | 0.16 |
| Antenatal hospital admission   | 0.198953    | 0.349055       | −0.4879 to 0.8858 | 0.569   | 0.03 |
| Onset of labour                | 0.856177    | 0.428737       | 0.0126 to 1.6998 | 0.047   | 0.11 |
| Previous pregnancy             | −0.416220   | 0.373041       | −1.1502 to 0.3178 | 0.265   | −0.09|
| cons                           | 37.314291   | 1.432957       | 34.5 to 40.1     | <0.001  |      |

Note: The reference (constant) was gestational age at delivery.
Beta: is a coefficient that ranks the influence of the parameters on the outcome of interest. The parameter with the highest value had the greatest influence on the obstetric outcome.

(11.6 ± 6.27 hours vs. 10.0 ± 3.22, p = 0.017), low birth weight (16.3% vs. 5.0%, p = 0.001), lower mean birth weight-to-placenta weight ratio (5.28 ± 1.11 vs. 5.91 ± 0.65, p = 0.001), and higher mean blood loss at delivery (499 ± 399.29 vs. 397 ± 243 ml, p = 0.012), all of which were statistically significant. Puerperal complications, including delays in establishing lactation (71.6% vs. 14.4%, p = 0.001) and use of breast milk substitutes (72.9% vs. 8.1%, p = 0.001), were significantly higher among women in CoMs (Table 4).

Among the women in CoMs, 20 (12.5%) lived alone, and had lower mean gestational age at delivery (35.1 ± 2.53 years vs. 38.0 ± 2.38 years, p = 0.001) and lower birth weight (2445 ± 749 vs. 3146 ± 1646 g, p = 0.043) than those with living-in-companions, which were statistically significant (Table 5).

From the logistic regression, the independent and statistically significant determinants of adverse pregnancy outcomes (referred as preterm delivery) were being in a CoM (95% CI = 0.2118–1.1578; p = 0.005) and onset of labour.
(95% CI = 0.0126–1.6998; p = 0.047), while CoM exerted the most important outcome (beta = 0.1601) (Table 6).

Discussion

Globally, CoM is on the increase due to technological advances, a shift in economies, greater emphasis on individual success and autonomy, as well as difficulty in securing jobs in some fields or locations. A CoM prevalence of 26.3% was reported in a study on pregnant women in Nigeria. In this study, commuting partners were male in 94.4% of the cases; this may be due to the societal expectation that a male partner should provide for the family’s needs. A previous study reported that 50% of commuting men were in relationships, which further suggests efforts by men to meet this responsibility. Most commuting in this study was due to job transfers or new employment, consistent with reports that economic benefits from wage differentials/structures and a job transfers or new employment, consistent with reports that economic benefits from wage differentials/structures and a desire to keep current jobs amidst job scarcity motivates the movement of workers. In a Swedish population report, commuters were mostly males with tertiary education working in the private sector, which is similar to this study. Generally, motivations for CoM include pressure to retain current employment in the face of work scarcity, a desire for another job with greater pay, and a search for professional development or self-fulfilment. For commuting relationships, weekly visits by the commuting partners were recommended as ideal; however, in this study, only a quarter of the families regrouped weekly, while approximately one half reunited fortnightly.

Male partners’ antepartum and postpartum contributions have been reported to be more beneficial than their intra-partum presence relative to good pregnancy outcomes. This correlates with the significantly higher antenatal illness-related hospital admissions observed among the women in CoMs in this study. This may be explained by the assertion that increased family stress, late booking, antenatal illness-related admissions, and inadequate partner support inhibit effective maternal adaptation to pregnancy, resulting in adverse pregnancy outcomes. The postpartum complications observed among the women in CoMs in this study, including the significant delay in establishing lactation and higher use of breast milk substitutes, corroborate the finding that limited partner support hinders effective maternal adaptation and preparedness to assume postpartum mother roles. While adequate emotional support encourages effective lactation, stress and anxiety inhibit it. To ameliorate the negative effects of CoMs, the family/relationship circle has been identified as a viable alternative source of effective support for affected women. This may explain the better outcomes recorded among the women in CoMs who had living-in-companions in this study compared to those among the women who lived alone.

This is a single-centre study; it is limited in sample size and study location, and therefore the application of its findings to the general population is limited.

Conclusion

This study concludes that women in CoMs are exposed to adverse obstetric sequelae which may be traceable to the type of family setting. They experienced antepartum, intra-partum, and puerperal complications more frequently than those in non-CoMs. However, living-in-companions appear to mitigate these adverse experiences. It is hoped that this study will stimulate research on larger populations to further evaluate the unexplored effects of CoMs on pregnant women and pregnancy outcomes.

The authors recommend further attention through population-based research to better define the effects of CoMs on pregnant women’s obstetric outcomes and on their families. Couples in CoMs should explore the potential benefit of a living-in-companion for women to improve the outcomes, while employers should offer necessary assistance to employees who desire to re-unite with their families.

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Conflict of interest

The authors have no conflicts of interest to declare.

Ethical approval

Ethical approval was obtained before the commencement of the study from the Ethical Review Committee, University of Ilorin Teaching Hospital, Ilorin, Nigeria, with approval number ERC PAN/2016/03/1505, dated 7th March 2016; informed consent was obtained from all the participants at recruitment into the study.

Authors contributions

ASA, AAF, STF, KTA, BWA and APA: Concept, design, data collection, interpretation, drafting, and approval of final draft. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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