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A Cross-Sectional Study to Assess Reproductive and Child Health Profile of Working Women Residing in Urban Slums of Rajkot City

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Abstract

Context: In India, people residing in slum are not able to get safe food, drinking water, and shelter. Special vulnerable group such as women and children are at higher risk for infectious- and nutritional-related problems. Because of the dual responsibility of working women for her family and job, chances are always higher that the reproductive and child health (RCH) of such families are compromised. **Aims:** The aim of this study is to assess RCH profile of working women residing in slums. **Subjects and Methods:** A community-based cross-sectional observational study was carried out among slums of Rajkot city. With the usage of simple random sampling technique and informed verbal consent for the study, a total of 480 working and nonworking women were enrolled in this study. Semi-closed prestandardized questionnaire was used to capture their sociodemographic, reproductive health, and child health parameters. The World Health Organization growth standard was used to categorize the nutritional status of their children. **Results:** Age of marriage and first conception were significantly delayed among working women. Only 37.8% working women had adequate birth spacing between two children. About 33.3% had received adequate antenatal care (ANC) services during pregnancy. Higher prevalence of malnutrition (65.2%) and lower prevalence of full immunization (39.4%) were found among children of working women. **Conclusions:** Low birth spacing, lower utilization of ANC care services, higher malnutrition, and poor immunization coverage among working women had indicated underutilization of RCH services by working women of slum.

Keywords: Child malnutrition, reproductive health, urban slum, working women

INTRODUCTION

In the past few decades, India has shown enormous growth in the field of industrialization and it has provided plenty of job opportunities in urban industrial areas. Most of the industrial areas are adjoined to cities and which is one of the key reasons for the migration of people from rural to urban areas in search of job opportunity and prosperous life. However with limited resources in terms of land and other environmental resources, major proportion of poor migratory people accommodate their self into small dwellings where water-, food-, and shelter-related hygiene and sanitation parameters are compromised, these settlements on gradual expansion results in slums. Lack of basic amenities such as safe drinking water, proper housing, drainage, and excreta disposal make this population vulnerable to infections which further compromises

the nutrition of those living in the slums.^[1] Studies have shown children and women residing in slums were facing various health problems related to reproductive health and nutrition.^[1-6] Furthermore, studies have reported health-care access for various reproductive and child health (RCH) care services were poor among slum dwellers.^[7-10] In the case of working women of slum because of dual responsibility of family as well as work, high possibility that health of women and their children

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Table 1: Basic sociodemographic profile of participants

Variable	Working women (%)	Nonworking women (%)	Total women (%)	P (χ^2)
Age of participant (years)				
<25	17 (25.8)	207 (50.0)	224 (46.7)	0.0001** (18.29)
26-30	43 (65.1)	197 (47.6)	240 (50.0)	
>30	6 (9.1)	10 (2.4)	16 (3.3)	
Education status of mother				
Illiterate	20 (30.3)	76 (18.4)	96 (20.0)	0.000176** (19.92)
Primary	18 (27.3)	226 (54.6)	244 (50.8)	
Secondary	18 (27.3)	87 (21.0)	105 (21.9)	
Higher secondary or more	10 (15.1)	25 (6.0)	35 (7.3)	
Type of family				
Nuclear	15 (22.7)	189 (45.7)	204 (42.5)	0.00193** (12.5)
Joint	30 (45.5)	140 (33.8)	170 (35.4)	
Three generation	21 (31.8)	85 (20.5)	106 (22.1)	
Duration of work other than household work (hour per day)				
<3	9 (13.6)	NA	9 (13.6)	NA
3-6	48 (72.7)		48 (72.7)	
>6	9 (13.6)		9 (13.6)	
Socioeconomic status as per modified Prasad classification				
Grade 1	0 (0)	0 (0)	0 (0)	0.1159 (5.912) (Fisher exact test value)
Grade 2	0 (0)	11 (2.7)	11 (2.3)	
Grade 3	9 (13.6)	67 (16.2)	76 (15.8)	
Grade 4	40 (60.6)	191 (46.1)	231 (48.1)	
Grade 5	17 (25.8)	145 (35.0)	162 (33.8)	
Type of toilet facility availed by women at resident				
NA	14 (21.2)	51 (12.3)	65 (13.5)	0.0149* (10.466)
Public	8 (12.1)	40 (9.7)	48 (10.0)	
Common	22 (33.4)	224 (54.1)	246 (51.3)	
Individual	22 (33.3)	99 (23.9)	121 (25.2)	
Total	66 (13.8)	414 (86.2)	480 (100)	

NA: Not available, * $p < 0.05$, ** $p < 0.001$

influenced by her working status. As very limited studies available in this context, the present study was planned with the following objectives: (1) To find out relation of women's work status with RCH profile of slum community. (2) To study RCH services utilization among working women.

SUBJECTS AND METHODS

A cross-sectional community-based observational study was carried out using multi-stage sampling method among working and nonworking women residing in urban slums of Rajkot city. For planning purpose, city is divided into three main zones which further divided into a total of 23 wards and almost all wards have slum areas (total 84 identified slums). With simple random sampling, we had selected 10 wards which were equitably represent zone population. From slum areas of ward, random selection of households was carried out for the study participants. After getting informed verbal consent for the study, youngest mother of household was interviewed through pretested semi-structured questionnaire which incorporates sociodemographic, job details, health services utilization,

RCH, etc. A total of 480 married women of reproductive age group were interviewed. Modified Prasad socioeconomic classification was used with considering consumer price index 194.66 as value.^[11] Precalibrated Salter's scale was used to measure weight of the child with minimal clothing and 0.1 Kg accuracy. Similarly, with standard technique, height/length of the child was measured through nonstretchable measure tape with 0.1 cm accuracy. The World Health Organization growth standard (weight for age) was used to categorize nutrition status of the child.^[12] IMNCI guideline was used to assess adequacy of food consumed by child.^[13] Data entry and statistical analysis were carried out using Epi-Info software (version: 7.1.0.6, Centers for Disease Control and Prevention, Atlanta, Georgia, US).

RESULTS

From a total of 480 study participants, working women were 66 (13.8%) as shown in Table 1. Nearly, 73% of employed women were working for 3–6 h a day. Major proportion of working women was from joint (45.5%) and three-generation

Table 2: Reproductive and child health-related variables of participants

Variable	“Working women (%) #”	House wife (%)	Total women (%)	P (χ^2)
Age of marriage (years)				
<18	2 (3.0)	64 (15.5)	66 (13.8)	0.024* (7.4497)
18-21	57 (86.4)	309 (74.6)	366 (76.2)	
>21	7 (10.6)	41 (9.9)	48 (10.0)	
Age at the time of first conception (years)				
<21	18 (27.3)	219 (52.9)	237 (49.4)	0.00011** (14.955)
≥21	48 (72.7)	195 (47.1)	243 (50.6)	
History of miscarriage				
Yes	12 (18.2)	54 (13.0)	66 (13.8)	0.26 (1.267)
No	54 (81.8)	360 (87.0)	414 (86.2)	
Birth interval between two children (months)				
≤36	26 (72.2)	203 (85.3)	229 (83.6)	0.048* (3.89)
>36	10 (27.8)	35 (14.7)	45 (16.4)	
Total number of children to mother				
1 - child	8 (12.2)	74 (17.9)	82 (17.1)	0.137 (5.525)
2 - child	35 (53.0)	187 (45.2)	222 (46.3)	
3 - child	21 (31.8)	111 (26.8)	132 (27.5)	
4 or more child	2 (3.0)	42 (10.1)	44 (9.1)	
ANC care during pregnancy				
Adequate	22 (33.3)	175 (42.3)	197 (41.0)	0.17 (1.879)
Inadequate	44 (66.7)	239 (57.7)	283 (59.0)	
Time of delivery as per gestational age				
Full term	59 (89.4)	360 (87.0)	419 (87.3)	0.627 (0.23)
Preterm	7 (10.6)	54 (13.0)	61 (12.7)	
Birth weight child				
Low birthweight	23 (36.5)	121 (32.8)	144 (33.3)	0.563 (0.33)
Normal (≥2500 g)	40 (63.5)	248 (67.2)	288 (66.7)	
Age of complementary food initiation (month)				
<6	54 (81.8)	147 (35.5)	201 (41.9)	<0.00001** (50.16)
≥6	12 (18.2)	267 (64.5)	279 (58.1)	
Nutritional status of child (weight/age) as per the WHO standard				
Normal	23 (34.8)	186 (44.9)	209 (43.5)	0.125 (2.35)
Underweight	43 (65.2)	228 (55.1)	271 (56.5)	
Vaccination status of child				
Full immunize	26 (39.4)	114 (27.5)	140 (29.2)	0.049* (3.87)
Partial/unimmunized	40 (60.6)	300 (72.5)	340 (70.8)	

* $p < 0.05$, ** $p < 0.001$, # Working woman: A woman who earns a salary, wages, or other income through regular employment or working, outside or inside the home. WHO: World Health Organization, ANC: Antenatal care

family (31.8%). The higher proportion of working women was from the age group of 26–30 years (65.1%) and majority of working women were illiterate (30.3%). No significant difference observed for socioeconomic class among working and nonworking women, but the same observed for the type of house and toilet facility usage. Age at the time of marriage and first conception were significantly higher among working women ($P < 0.05$) [Table-2]. History of miscarriage was higher among working women (18.2%) compared to nonworking women. It was found that 72.2% working women had <36 months of birth spacing between two children. Inadequate antenatal care (ANC) (66.7%) and low birthweight child (36.5%) were more common among working women in comparison to nonworking women. The significant higher proportion of mother (81.8%) had early initiated complementary food for her

child ($P < 0.0001$). The study has found higher proportion of underweight children (65.2%) to working women in comparison to nonworking women (55.1%). In case of working women, dietary intake of 59.1% of children was inadequate and only 39.4% children were fully immunized.

DISCUSSION

Results of the study have shown that 30% of working women residing in slum have not even received primary education. Nearly 86% of working women were from lower socioeconomic class and toilet facility were not accessed by 21% of working women. Delayed age of marriage along with delayed first conception among working women were good indications for family planning services. However, total

number of children to working and nonworking women were not differing significantly, which indicates the requirement of promotion of modern family planning methods for both groups. Minimal birth spacing, underutilization of ANC services, and inadequate rest because of her dual responsibility of job as well as family may be the possible explanation for higher miscarriage and low birthweight children to working mother. Lower utilization of ANC services was also shown in the study of Hazarika^[9] Devasenapathy *et al.*^[10] Mukesh *et al.*,^[14] and Kumar and Bharadwaj^[15] Higher prevalence of malnutrition and poor vaccination coverage among children of working women were suggestive of requirement of focused intervention for nutrition and immunization among this vulnerable group through health system. Similar results regarding malnutrition, immunization, and underutilization of health services were shown by different studies carried out at Rajkot, Jamnagar, and Mumbai.^[16-18] Lower utilization of family planning services was also shown in the study of Hazarika^[9] and Devasenapathy *et al.*^[10]

CONCLUSION

Our study to evaluate the effects of “working status” of women on reproductive and child health, demonstrated certain advantages such as delay in the age of marriage, age of first conception, birth spacing and improved immunization, while certain disadvantages such as inadequate antenatal care, early initiation of complimentary feeding and malnourished children. The study recommends to improve the ease of access to antenatal care, anganwadi services and provide support to working nursing mothers at the proximity of workplace.

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Conflicts of interest

There are no conflicts of interest.

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