Untreated Reproductive Morbidities among Ever Married Women of Slums of Rajkot City, Gujarat: The Role of Class, Distance, Provider Attitudes, and Perceived Quality of Care

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ABSTRACT *It is a common problem in India for women in the reproductive age group to suffer from reproductive illnesses and not seek care. This paper is an attempt to assess untreated reproductive morbidities and to study factors affecting treatment-seeking behavior among ever married women of urban slums. We selected 1,046 women of the reproductive age group (15–49 years) using two-stage cluster sampling for a community-based, cross-sectional study. From this sample, 593 responses reporting reproductive morbidity were analyzed for treatment-seeking behavior and its correlates. Information was collected on demographics, socioeconomic status, self-reported reproductive morbidity, and treatment-seeking patterns, along with reasons for not utilizing available health services, all using a pretested, structured interview schedule. Univariate and multivariate analyses were done in SPSS 15.0. In our sample, 57% of women had at least one reproductive morbidity; of these, only one third sought health care. Women belonging to the Scheduled Castes/Scheduled Tribes caste group (OR=3.92, 95% CI 1.44–10.64), at a distance of more than 2 km from a health facility (OR=2.67, 95% CI 1.28–5.58), and whose duration of illness was more than 1 year (OR=14.44, 95% CI 3.66–56.87) accessed fewer reproductive health services compared to their counterparts. The present study found that a lower sense of need, the cost of care, and societal barriers were the reasons for not seeking care. Providers' poor attitudes, poor quality of services, and long waiting times were found to be the reasons for not utilizing health facilities. The determinants for accessing reproductive health care were resources available at the household level, social factors, the availability of services, and behaviors related to health. Government facilities remained underutilized.*

KEYWORDS *Reproductive health, Urban slums, Gujarat, India, Surat, Maternal and child health, Health policy, Untreated morbidity, Health seeking*

INTRODUCTION

According to WHO estimates, sexual and reproductive health problems accounted for 18% of the total global burden of diseases in 2001 and 32% of the burden among women in the reproductive age group (15–44 years) worldwide.[1] Murray and Lopez estimated that the burden of reproductive illness was highest in India (12.5% of the total).[1]

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Studies from developing countries have reported that almost half of women had reproductive tract infections (RTI),[2–5] every tenth woman suffered from uterine prolapse (one of the worst gynecological morbidities),[6] half had menstrual problems,[7] and a significant proportion had problems related to infertility.[8]

High prevalence of reproductive morbidity is attributed to many factors, such as child-bearing pattern;[3] utilization of health services;[5] health-related behavior;[9] and background characteristics including personal standard of living,[4] community affiliation,[4] and utilization of social institutions.[2,10] Many instances are preventable, and yet, many of them go undiagnosed and untreated because of poor access to reproductive health care services.

For various reasons, more than half of the women studied did not seek treatment for their reproductive illness.[10–12] These reasons included gender inequality,[9,13] financial constraints,[5,14] lack of perceived need,[5] and psychosocial constraints including stigma.[15] Some literature highlighted linkages between reproductive illnesses and sexual health that discouraged women from paying adequate attention to these illnesses: sexual health problems are looked down upon as a source of shame, blame, or embarrassment, and tend to be hidden in a so-called culture of silence.[15] It was also found that the women generally perceived symptoms like vaginal discharge as "normal" and felt they did not require any care.[16,17] They tended to seek treatment only when their health problems caused great physical discomfort or affected their work performance. The availability of health services also played an important role in access.[5]

After the International Conference on Population and Development (ICPD 1994), there was a paradigm shift in India. A few years later, the Reproductive and Child Health Program (RCH 1997–98) was launched, focusing on a wider approach to reproductive health than just maternal health. However, in some parts of the country, maternal health is still the sole focus of reproductive health care. Despite ICPD's emphasis on universal access to reproductive health care in India, there are still large numbers of women living with reproductive illnesses and not seeking care. Many of these are caused by non-health-related factors in accessing reproductive health services. The present study is an inquiry to study the problem of reproductive morbidities and the factors that determine access to reproductive health services among slum dwellers. The objectives of the present study were (1) to assess the reproductive health of ever married women aged 15–49 in the slums of Rajkot City, (2) to study the level of untreated reproductive morbidities (UTRM) among women in this reproductive age group, and (3) to identify the factors that determine UTRM.

METHODOLOGY

The area for the present study was the city of Rajkot in Gujarat state, India. Arranged with a cross-sectional research design, the study used a structured interview schedule based on third National Family Health Survey of India (NFHS-3)[*] and an unpublished thesis.[†] The interview schedule was first translated from English into a local language

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[*]National Family Health Survey of India (2004–2005)

[†]Bohara A. Equity Effect of Rajasthan Health System Development Project on Utilization of Health services and Unmet Need for Health Care Services: A Case Study from Rajasthan, MPH dissertation, AMCHSS, SCTIMST, Kerala 2007

and then translated back to English to test consistency. Further, it was pretested for clarity, validity, and reliability of the questions among a population similar to that in the area of study. Respondents were women of the reproductive age group (15–49 years) who had ever been married.

In a 2001 study,[18] Das et al. reported UTRM as 25.7% in urban slums. Assuming a 50% greater incidence rate of UTRM in the present study area of Rajkot Corporation, a rate of 38% was hypothesized. Sample size was calculated at 513 using StatCalc, Epi-Info Version 6, to keep the expected proportion of UTRM at 38%, with a 95% confidence interval. Forty-five clusters were selected. This sample size was doubled to minimize cluster effect with an assumption of moderate heterogeneity in each cluster. A two-stage sampling procedure was adopted. In the first stage, 45 clusters were randomly selected and in the second stage, probability proportional to size method was used to select households from the randomly selected clusters. For a sample frame, the study used the Urban Administration (Corporation) Pulse Polio campaign list of houses mapped from each ward (smaller divisions within the corporation). The study's sampling unit was the household; the average woman-to-household ratio was about 1.25. In total, 1,046 eligible women from 826 households were interviewed, with a 100% response rate.

The study was conducted in 2008, with data collection carried out from June 15 to August 31. Using an interview schedule, information was collected on demographic characteristics of household, details on self-reported reproductive morbidity, duration of illness, health care-seeking behavior, and reasons for not seeking care. Secondary data on available health facilities, along with the maps at the ward level, were obtained from the Health Department of Rajkot Municipal Corporation. The data were entered and cleaned using EPI-Data version 3.1. Later, the data were analyzed using SPSS version 15.0.

The analysis began with the descriptive study of the sample characteristics. This was followed by a statistical test; χ^2 analysis was performed for categorical variables and tested for statistical significance, and a t test was performed for continuous variables. The logistic regression model included those variables having statistical significance in bivariate analyses, along with other important variables. The regression was performed for studying the contribution of factors on UTRM. The analysis employed binary logistic regression using stepwise entry methods. A p value less than 0.05 was considered significant.

Local community health volunteers collected the data. These volunteers were trained using the NFHS-3 guideline for data collection. The investigator also supervised the field workers closely.

Prior to the data collection, the investigator obtained clearance from the Institutional Ethical Committee of Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, and obtained permission from health authorities for data collection. Confidentiality was maintained throughout.

MEASURES

Socioeconomic Status A composite index was developed for socioeconomic status based on the Standard of Living Index (SLI) established by NHFS-2. The index comprised information on type of house, ownership of house, source of drinking water, type of toilet facilities, type of cooking fuel, source of light, number of wage-earning family members, size of family, whether there was a separate room for a kitchen, and the number of persons sleeping per room.

Reproductive Morbidity Self-reported reproductive morbidity status was used to measure the level of reproductive morbidity. As per WHO guidelines and definitions,[19] symptoms were divided into five major groups: RTI/sexually transmitted infection (STI)-related, menstruation-related, pregnancy-related, contraception-related, and infertility. The symptoms were translated into the local language and either circulated among the participants or read out during the interview. If a participant reported having had one or more symptoms during the 2 weeks preceding the time of survey, then she was considered to have a reproductive morbidity.

Untreated Reproductive Morbidity If a woman did at least one of the following for a given reproductive morbidity, then she was classified as having UTRM: (1) sought care from a qualified medical practitioner but did not complete treatment; (2) sought treatment from an unqualified practitioner; (3) engaged in home remedy; (4) did not seek any treatment.

RESULTS

Respondent Characteristics In total, 826 households were visited. From these households, 1,046 15–49-year-old, ever married women were selected for interview. The mean age and SLI scores of all respondents were 28 (±7) and 23 (±6), respectively. In all, 97% of respondents were currently married. Educational statuses were as follows: 24% of respondents were illiterate, and 12% just literate; 30% had completed primary education, 24% had completed secondary education, and 9% had completed higher-secondary or above. Occupational statuses were classified two ways: (a) unpaid work, a category comprised of housewives and accounting for 77% of the sample; and (b) paid work, a category comprised of women engaged in small business, working as servants or maids, employed in private organizations, or working in government, accounting for 23% of the sample. In terms of religious affiliation, the majority of respondents were Hindus (77%), followed by Muslims (22%), with the remainder being Christians. The caste distribution showed 51% respondents belonged to Other Backward Classes (OBC), while 18% belonged to Scheduled Castes/Scheduled Tribes, and 30% belonged to the general caste (Table 1).

Reproductive Morbidity Among all the respondents, 593 (57%) were suffering from at least one reproductive morbidity in the 15 days prior to data collection. Among these, the majority (99%) were suffering from RTI/STI-related symptoms, while 68% had menstrual-related problems, 11% had pregnancy-related problems, and 2% reported infertility- or contraception-related problems. Respondents with RTIs/STIs commonly reported symptoms including vaginal discharge, aches of the lower back, and lower abdominal pain. Painful periods were a common symptom among those reporting menstrual problems. Forty-six percent of women had experienced these symptoms for over 1 year, 8% from 6 to 12 months, 26% from 1 to 6 months, and 20% for a period less than 1 month. For all illnesses reported above, only 46% of participants (274) sought treatment from any health facility. Among those who sought care, 12% did not complete the prescribed course. Only 34% of respondents sought treatment for reproductive morbidity, while 66% remained with UTRM. With regard to place of delivery, 82.8% of respondents experiencing non-institutional delivery had UTRM, in contrast to 64.7% of those who had institutional delivery. However, this was not statistically significant.

TABLE 1   Respondent characteristics

Characteristics		Frequency (%)
Age[a]		28 (±6)
Marital status	Married	1,015 (97)
	Others	31 (3.0)
Religion	Hindu	804 (77.2)
	Muslim	237 (22.7)
Caste	General	316 (30.2)
	Scheduled Caste/Scheduled Tribe	189 (18.1)
	Other Backwards Classes	541 (51.7)
Standard of living index[a]		23 (±6)
Occupation	Paid work	235 (22.5)
	Unpaid work	811 (77.5)
Education	Not able to read or write	255 (24.4)
	Able to read or write (Just literate)	125 (12.0)
	Primary (1–7)	311 (29.7)
	Secondary (8–10)	253 (24.2)
	Higher secondary (11–12) and plus	102 (9.8)
Duration of illness	Less than 1 month	117 (19.7)
	1 to 6 months	154 (26.0)
	6 months to 1 year	49 (8.3)
	More than 1 year	273 (46.0)
Delayed seeking care	No delay	60 (21.9)
	Less than 1 month	81 (29.6)
	More than 1 month	133 (48.5)
Place of last delivery	Institutional	457 (81.3)
	Non-institutional	105 (18.7)
Qualified medical practitioner	Less than 1 km	807 (77.2)
	More than 1 km	154 (16.0)
Maternity health facility	Within 2 km	569 (56.4)
	More than 2 km	439 (43.6)

[a]Mean value (standard deviation)

Treatment-Seeking Behavior When questioned on their reasons for not seeking care, the majority of respondents stated that "treatment was not necessary" (87%). Others cited financial constraints (28%), lack of time (26%), long distances from health facilities (19%), feeling that home remedies were sufficient (11%), no autonomy (9%), poor quality of care (8%), and no privacy in care (6%). According to some respondents who did not seek treatment, symptoms were "a discharge of dirt from the body" while others mentioned, "it was heat inside the body." There were also a few statements such as "it is the destiny of women and we have to live with it." Some women expressed their fear of side effects from medicines. Among those who sought treatment (274), 65% went to the private sector. And of these, 8.4% went to NGOs/trust hospitals/clinics, 28.8% attended private hospitals, and 27.4% attended private clinics.

Responding to why they did not use government facilities, participants provided the following reasons: long waiting time (68%), distance (52%), poor quality of services (48%), poor attitude of provider (36%), expense (17%), non-availability of doctors (10%), non-availability of drugs (7%), no privacy in care (7%), and unfamiliarity with the facilities (5%). Even among those who received treatment,

only one fourth had completed treatment, whereas more than one third were currently undergoing treatment. Per the operational definition of UTRM, 54% of women having any reproductive illness in the 15 days prior to interviewing did not seek treatment. Among those who sought treatment, 12% did not complete the prescribed course. In total, the rate of UTRM was 66% among women having had any illness in the 15 days prior to interviewing. This amounts to about 37.19% of all women interviewed.

Determinants of Untreated Reproductive Morbidities As mentioned in the "Methodology" section, a χ^2 analysis and *t* test for statistical significance were performed for categorical variables and for continuous variables, respectively. Those variables having statistical significance in bivariate analyses were included along with other important variables in the logistic regression model. This was performed for studying the contribution of factors to UTRM. The analysis used binary logistic regression with stepwise entry. A *p* value of less than 0.05 was considered significant. The following variables were included in the regression model: marital status, religion, caste, SLI, occupation, education, duration of illness, delay in seeking care, place of last delivery, qualification of medical practitioner, and maternity health facility.

The mean age and SLI score were significantly lower in the UTRM group as compared to the treated reproductive morbidity group. The proportion of those with UTRM was higher among separated/widowed/divorced and Muslim women but was not statistically significant in these cases. Scheduled Castes/Scheduled Tribes had the highest rate of UTRM (83%), compared to Other Backward Caste women (68%) and general caste women (46%). Women who were engaged in paid work had significantly lower prevalence of UTRM than their counterparts. Women with higher levels of education had lower rates of UTRM. Those who had been suffering from reproductive illnesses for longer durations had a significantly higher rate of UTRM than those with shorter durations of reproductive illnesses. Untreated morbidity was higher among women who delayed in seeking care (33%) than those who sought treatment in time (19%). It was also found that UTRM was more common among the women located farther from either maternity health services or a qualified medical practitioner. Interestingly, UTRM was low among the women who delivered in institutions compared to those who delivered at home.

After controlling for other variables, SLI [OR=0.84 (95% CI 0.8–0.9)], belonging to the Scheduled Castes/Scheduled Tribes caste group [OR=3.92 (95% CI 1.44–10.64)], distance from maternity health facility [OR=2.67 (95% CI 1.28–5.58)], and duration of illness greater than 1 year [OR=14.44 (95% CI 3.66–56.87)] were all found to be significantly associated with UTRM (Table 2).

DISCUSSION

The prevalence of reproductive morbidity in this sample was 57%. This is similar to previous studies conducted in other parts of India.[4,6,10] In all, 66% of women with reproductive morbidity in this sample went untreated. This finding is in agreement with many studies.[3,5,10–12]

In line with Rani and Bonu, this study found that older women were better at seeking care.[13] The reason could be that elderly women have more freedom and better awareness of health facilities and, hence, seek care. Widowed/divorced/

TABLE 2 Untreated reproductive morbidity

Reproductive morbidity		UTRM (%)	Unadjusted OR (95%CI)	Adjusted OR (95% CI)	p value
CASTE	General	71 (46.1)	1	1	
	Scheduled Caste/ Scheduled Tribe	107 (82.9)	5.68 (3.25–9.93)	3.92 (1.44–10.68)	0.008
	Other Backwards Classes	211 (68.0)	2.49 (1.67–3.70)	1.15 (0.49–2.66)	
Standard of Living Index[a]		21.3 (±7.4)	0.89 (0.87–0.92)	0.84 (0.80–0.90)	0.000
Duration of Illness	Less than 1 month	62 (53.0)	1	1	
	1 to 6 months	89 (57.8)	1.21 (0.74–1.97)	1.60 (0.49–5.23)	
	6 months to 1 year	32 (65.3)	1.67 (0.83–3.33)	5.16 (1.00–26.60)	0.049
	More than 1 year	206 (75.5)	2.72 (1.72–4.30)	14.44 (3.66–56.87)	0.000
Maternity Health Facility	Within 2 km	187 (55.7)	1	1	
	More than 2 km	199 (78.7)	2.99 (2.06–4.33)	2.67 (1.28–5.58)	0.009

Results of bivariate and multivariate analysis

UTRM untreated reproductive morbidity, *CI* confidence Interval

[a]Mean value (standard deviation)

separated women had higher rates of UTRM than married women. This may be due to the stigma attached to reproductive illnesses that are labeled as sexual infections. Rates of UTRM were slightly higher among Muslim women; this could be due to religious factors that discourage the discussion of reproductive illnesses with men, including, of course, male providers.

Education is positively related with care-seeking behavior: increased education leads to increases in women seeking care for reproductive illnesses.[11,13] To some extent, education can help women improve health themselves through better lifestyles and better access to health knowledge—and this will lead to an increased desire to seek care.[20] Women with paid work had low UTRM;[9] this might be due to the power in making financial decisions, which leads to autonomy and gives an opportunity to seek care for illnesses.[15]

In terms of social stratification, care-seeking behavior for reproductive illnesses is compromised among the socially disadvantaged and marginalized Scheduled Castes/Scheduled Tribes and Other Backward Castes, who have low levels of education and low socioeconomic status.[13] The findings of the present study that higher SLIs correlate with lower UTRM are consistent with other studies.[14] It is a very well-established fact that women with low socioeconomic status have high burdens of reproductive illnesses;[21] this is due to low perception of need, low resources, and the cost of care.

Women with longer durations of symptoms or higher burden of illnesses were more likely to go untreated; this might be due to a lower perception of these symptoms as "illnesses,"[5] or respondents becoming habituated to them as part of being a woman.[17] Also, women who sought care early due to self-perceived severity were more likely to complete their treatment, whereas women who delayed in

seeking care were less likely to do so. The reasons cited for this were either a higher cost of treatment, feeling better before the end of the course, or fear of side effects.

Studies show that women who delivered with unskilled attendants had high reproductive illnesses.[4] Many others have shown physical accessibility to health facilities has a major influence on health-seeking behavior.[22] Reasons for this include factors such as distance, cost, time, the need for an accompanying person, availability of transport, and follow-up requirements. The present study findings confirm that women living closer to health facilities sought more care. In general, the women preferred female health workers when seeking care for reproductive illnesses and maternal health. Maternal health facilities tended to have more female providers; hence, women used these facilities more.

The majority of women in the present study reported in their reasons for not seeking care that "treatment was unnecessary." This could be similar to the "culture of silence" discussed in other studies.[17] Cost, physical accessibility, quality of health services, and women's level of autonomy emerged as reasons for not seeking care, and all were statistically significant. On the other hand, personal perceptions and health-seeking behavior were more important with regard to reproductive illnesses than were socioeconomic, societal, or health service factors. It was also found that governmental health facilities were underutilized despite being provided for free. This may be due to women's previous experiences and perceptions of poor quality.

The present study has some strengths worth mentioning. The sample size was large, and data collection was done meticulously, which minimized inconsistencies and unknown values. Information about the use and availability of health services were collected in detail. The study was conducted in an urban slum setting, and its findings can be generalized to other slums in India as the conditions in such settings are similar in terms of migration, standard of living, and insecurity of tenure. One of the present study's limitations was its consideration of self-reported illnesses without any clinical diagnosis of morbidity; the estimation of morbidity could be inaccurate, and this may in turn affect the causal relationship. Another limitation is that although the study attempts to assess UTRMs and effective treatment-seeking behavior of female, urban slum-dwellers aged 15–49 years, it excludes women from this age group who have never been married.

CONCLUSION

Despite the large number of women suffering from reproductive morbidities, only a small proportion of them sought care. Socioeconomic conditions, caste, distance from health facilities, and duration of illnesses were the factors that determined UTRM. This was further affected by self perception, belief, and a lack of felt need. Women did not seek care through public health channels because of provider and health-system problems. This clearly shows the gap in what is projected and perceived by these women while treating reproductive morbidities. Even 14 years after the ICPD conference, reproductive health care has not shifted from maternal health to reproductive health in practice. This is may be because this problem is still viewed from the provider's perspective instead of the client's. Utilization of services will improve only if we include the perceived reproductive health needs of women in our policies. Specific findings such as the association of education, caste, duration of illness, distance from maternity health facilities, and SLI with reproductive health-seeking behavior, respectively, all demand attention from policy makers. Many of

these may be addressed with policy interventions. Crucially, there must be efforts to improve the education status of poor, urban women. Efforts to address the problem with specific programs targeting Backward and Scheduled Caste/Scheduled Tribe populations are still not reaching the needy. Strict monitoring and control measures are needed to ensure the delivery of benefits to intended beneficiaries. The duration of illnesses may point to poor surveillance and information systems for urban poor. In spite of fast urbanization, health facilities fail to address the problem of distance for the urban poor. Specific interventions targeting the urban poor are the only solution for this. SLI figures indicate the need for employment and income generation activities among this population. Many of the above interventions are the objectives of the current RCH and other urban health initiatives. The need of the hour is to ensure the actual implementation of such programs and strengthen the mechanisms for their achievement.

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