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Community-based study of problems faced by breastfeeding urban women

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Abstract

This interview-based cross-sectional study was conducted in an urban community in Thane, located about 30 km from Mumbai in Western India. A total of 199 currently breastfeeding women, who had given written informed consent, were interviewed by a female researcher using a pre-tested pre-validated questionnaire, at mutually suitable timings, either at participant's homes or at a place convenient to them. The mean age of homemakers (n=72) was 27.93±4.23 years (95% CI: 26.95-28.91 years) while that for the employed women (n=127) was 30.73±3.42 years (95% CI: 30.14-31.33 years). Common problems (latching problems, backache, other pain, family pressure and lack of privacy) were associated with socio-economic status, lack of breastfeeding advice, lack of awareness regarding benefits of colostrum and gender of the baby. Health professionals would need specific knowledge, attitudes and skills so that they can help in prevention and management of community-specific problems faced by breastfeeding mothers.

Keywords: breastfeeding, employed mothers, homemakers, lactation

1. Introduction

Humans are the only mammals wherein breastfeeding and weaning are not directed by instinct and therefore, humans need to learn breastfeeding and weaning^[1]. The switch from of joint or extended to nuclear families in modern societies has divested young mothers from the option of learning from older and more experienced female family members. As a result, young women attain motherhood with inadequate knowledge or skills regarding breastfeeding, which makes them more susceptible to difficulties during the process^[1].

Breastfeeding exclusively for six months ensures child's growth, promotes cognitive development^[2], protects against common acute childhood infections^[3, 4], gastrointestinal infections, respiratory illness^[5-7], prevents atopic diseases,^[6,8] allergies, asthma, diabetes mellitus^[9, 10], leukaemia and lymphomas^[11, 12], and decreases the rate of Sudden Infant Death Syndrome^[13]. Studies have reported that breast feeding averts corpulence in later life^[14, 15] because breast milk contains substances that may influence self-regulation of food intake, contributing to the differences observed between breastfed and formula-fed infants^[16]. The level of leptin (an appetite suppressor) in infant serum is positively correlated with that in the maternal serum. The higher concentration of ghrelin (an appetite stimulator) in foremilk, as compared to that in hindmilk^[17] may be responsible for the better self-regulation of intake in breastfed infants, as compared to formula-fed infants, and this may be a probable reason for increased "bottle-emptying behaviour" that is seen among bottle-fed infants^[18]. For the mother, breastfeeding has economic benefits, ensures mother-child bonding, promotes postpartum weight loss and birth spacing, and is protective against breast and ovarian cancers^[3].

Hence, it is crucial to evaluate problems faced by breastfeeding women so that remedial measures can be envisaged. The objective of the present study was to compare and analyse the range of self-reported problems faced by currently breastfeeding women.

2. Materials & Methods

2.1 Type of study: Interview-based cross-sectional study

2.2 Place of study: This study was conducted from May 2017 to December 2017 in an urban

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community in Thane, which is located about 30 km from Mumbai in Western India.

2.3 Participants: The participants were currently breastfeeding women

2.4 Inclusion criteria: Currently breastfeeding women who gave written informed consent to participate in the interview-based study.

2.5 Exclusion criteria: Women who were not breastfeeding currently were excluded to avoid recall bias. Those who did not give written informed consent to participate in the study were also excluded.

2.6 Procedure: After obtaining permission from hospital authorities and Institutional Ethical Committee, the prospective participants were informed about the objective of study, confidentiality of data and methodology of the study in a language understood by them (Hindi or Marathi). Written informed consent was taken in same language. For cultural reasons, all participants were interviewed by a female researcher (the first author) using a pre-tested, pre-validated questionnaire. The interviews were conducted at mutually suitable timings, either at participants' homes or at a place convenient to them. Modified Kuppaswamy scale [19] was used to determine the socio-economic status (SES).

2.7 Statistical analysis: The data were entered in MS Excel (Microsoft Corporation, Redmond, WA, USA) and statistically analyzed using EpiInfo Version 7.0 (public domain software package from the Centers for Disease Control and Prevention, Atlanta, GA, USA). Categorical data were presented as percentages and continuous data as Mean and Standard Deviation (SD). 95% confidence interval (CI) was calculated as: [(Mean)-(1.96)*(Standard error)] - [(Mean)+(1.96)*(Standard error)]. The Chi square value was calculated using Karl Pearson's Chi square test, with Yates correction, where applicable. The Relative Risk was calculated as ratio of probability of an event occurring in an exposed group to that occurring in a comparable non-exposed group. Statistical significance was determined at $P < 0.05$.

3. Results & Discussion

A total of 199 currently breastfeeding women (72 homemakers and 127 employed women) participated in the study. The dependent variables included physical problems related to latching, nipple, backache and other pains and psychosocial problems (family pressure to bottle feed or feed as per tradition, lack of privacy during breastfeeding and psychological problems, such as, apprehension about lack of help, worry about inadequate milk, and night stress for feeding). The independent variables were age, religion, gender of the baby, type of delivery, socio-economic status (SES), time of initiating breast feeding after birth, advice given by hospital staff, assistance/support from family

members, and awareness of benefits of colostrum.

3.1 Demographics: The mean age of homemakers (n=72) was 27.93±4.23 years (95% CI: 26.95-28.91 years) while that for the employed women (n=127) was 30.73±3.42 years (95% CI: 30.14-31.33 years). The maximum, third quartile, median, first quartile and minimum age were lower for homemakers as compared to their employed counterparts. (Figure-1)



Fig 1: Box plot depicting age distribution of participants

Of the 72 homemakers, 45 (62.5%) belonged to lower middle SES group while 27 (37.5%) belonged to upper lower SES group. 64 (88.89%) of homemakers were Hindus while the rest (11.11%) were Muslims. The distribution of employed women (n=127) in upper middle, lower middle and upper lower SES groups was 9 (7.09%), 78 (61.42%) and 40 (31.50%), respectively. The religion-wise distribution of employed women was as follows – Hindu (92.91%), Muslim (3.94%), Jain (1.57%), Sikh (0.79%) and Christian (0.79%).

Maternal employment adversely affects breastfeeding. [20] An American study [21] reported a drastic decline in breastfeeding rates among working women after six months of delivery. Working women tend to seek alternate infant feeding options including introduction of complementary feeding when their maternity leave ends. [22]

An Indian study [23] analyzed data from the National Family Health Survey (NFHS) conducted in 1992-93 (NFHS-1) and 2005-06 (NFHS-3) and concluded that the exclusive breast feeding rate in India was sub-optimal with no substantial gains in the period between the two NFHS surveys. Non-compliance with the exclusive breast feeding norm was found to be related to urban living, shorter birth intervals and higher economic status.

3.2 Physical problems: As compared to homemakers, a significantly higher number of employed mothers faced latching problems ($P < 0.0411$) and other pain ($P < 0.0022$). Though backache was a frequent complaint, there was no significant difference between the two groups. (Table-1 & Figure-2).

Table 1: Physical Problems

Physical Problems	Home makers (n=72)	Employed mothers (n=127)	Chi square value #	P value
Latching	8 (11.11)	29 (22.83)	4.1724	0.0411 *
Nipple	8 (11.11)	10 (07.87)	0.5853	0.4442
Backache	68 (94.44)	122 (96.06)	0.2788	0.5975
Other Pain	44 (61.11)	49 (38.58)	9.3683	0.0022 *

Figures in parentheses indicate percentages

Karl Pearson's Chi square test, with Yates correction, where applicable

* Statistically significant

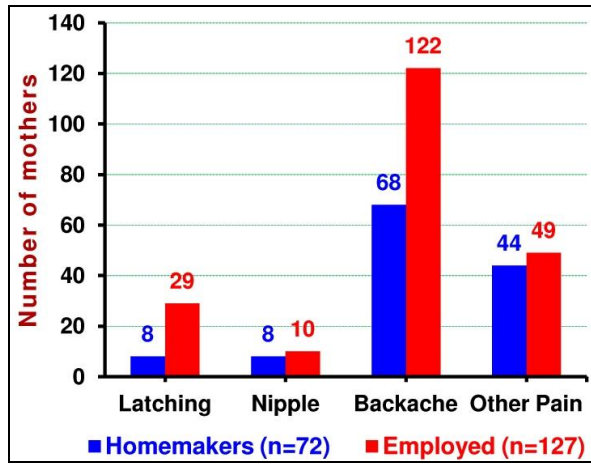


Fig 2: Physical Problems

Table 2: Relative risk between physical problems and various parameters

Parameters	Latching	Nipple	Backache	Other pain
SES	1.263	0.811	3.494	1.4701
Delivery type	0.783	0.825	0.811	1.0962
Lack of BF within 4 hrs	0.980	0.882	1.054	0.9641
Lack of BF advice at hospital	1.007	1.391	1.390	0.9965
Lack of BF advice at home	0.956	1.096	0.863	0.9240
Awareness of colostrum	1.103	1.048	0.894	0.8647
Gender of baby	1.037	1.1971	1.071	1.1524

BF = Breastfeeding; SES = Socio-economic status

Relative risk (RR) >1 implies that risk was increased for exposed group as compared to that in the unexposed. For latching problem RR = 1.263 (Table-2). Hence, relative risk reduction = Mod (1-RR)*100 = 26.3%. The RR of latching problem was increased by 26.3% in lower middle SES group as compared to that in than upper middle SES group. In other words, risk of latching problem was more in lower middle SES group (0.2238) than in upper middle SES group (0.1667). Of all physical problems (except nipple problem) for SES, RR was more than 1. This RR was found to be higher in lower middle SES group, as compared to that in upper middle SES group. Risk of physical problems (Table-2) was associated with SES group, lack of breastfeeding advice at hospital, lack of awareness about benefits of colostrum and gender of the baby. RR for all physical problems for all these factors was

more than 1. The RR was higher in lower middle SES group, as compared to that in the upper middle SES group. (Table-2) The other breastfeeding-related problems described in literature [1] viz. breast engorgement, nipple pain/trauma, nipple infection, plugged ducts, mastitis, breast abscess and galactocele, and hypogalactia (inadequate milk production) were not reported by the respondents in the present study.

3.3 Psychosocial problems: As compared to homemakers, a significantly higher proportion ($P<0.00001$) of employed mothers cited lack of privacy during breastfeeding. (Table-3 & Figure-3) The other problems included family pressure to start artificial feeds or to feed the infant as per “tradition”, apprehension about inadequate breast milk, and night stress for feeding.

Table 3: Psychosocial Problems

Psychosocial Problems	Home makers (n=72)	Employed mothers (n=127)	Chi square value #	P value
Family pressure	25 (34.73)	34 (26.77)	1.3925	0.2380
Lack of privacy	13 (18.06)	123 (96.85)	127.71	<0.00001 *
Psychological	17 (23.61)	47 (37.00)	3.7799	0.0518

Figures in parentheses indicate percentages

Karl Pearson’s Chi square test, with Yates correction, where applicable

* Statistically significant

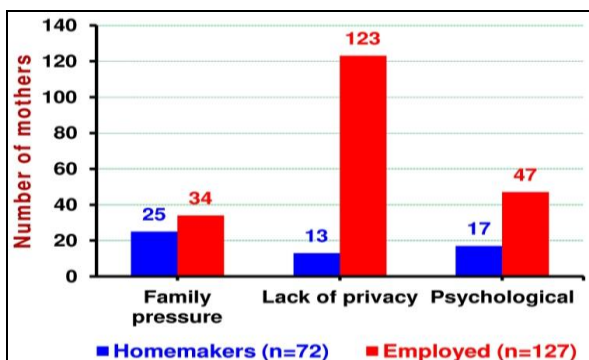


Fig 3: Psychosocial Problems

Studies using meta-analyses have evaluated the impact of professional and lay support on breastfeeding outcomes [24, 25]. Continuation of breastfeeding and successful breastfeeding is associated with support from the baby’s father [20], maternal grandmother [26], other family members [20, 26], and peer support [24]. Fathers who receive breastfeeding information from professionals are more likely to promote and support breastfeeding [27].

In some Asian and African cultures, where breastfeeding is socially accepted, women often have more freedom to breastfeed in public places without stigmatization [28]. Women who feel formidable stigma around breastfeeding in public and have little access to breastfeeding information outside the

health system [29] are unlikely to continue breastfeeding. Another study [30] reported that women often reported feeling “vulnerable” while breastfeeding in public and anticipated negative attention for it, which led women to remain housebound or restrict their movements during exclusive breastfeeding to avoid the “social stigma” of breastfeeding in public.

Family pressure for bottle-feeding or traditional feeding and lack of privacy in breast feeding were the topmost psychosocial problems faced by mothers. The RR for all psychological problems (except for lack of privacy) for SES

was more than 1. Except for lack of privacy, the RR for psychological problems was higher in lower middle SES group as compared to that for their upper middle SES counterparts. Again, the RR for all psychological problems (except for lack of privacy) for gender of baby was more than 1 and this RR was higher in lower middle SES group as compared to that in the upper middle SES group. (Table-4)

Relative risk of psychosocial problems was also associated with socio-economic status, lack of breastfeeding advice at hospital and home, lack of awareness regarding benefits of colostrum and gender of the baby. (Table-4).

Table 4: Relative Risk between Psychosocial problems and various factors

Parameters	Family pressure	Lack of Privacy	Psycho- logical
SES	1.3568	0.746	1.3244
Delivery type	0.9913	0.7041	1.1742
Lack of BF within 4 hrs	0.9434	1.153	0.9962
Lack of BF advice at hospital	1.1111	1.0131	1.0582
Lack of BF advice at home	1.0737	1.06	0.9645
Awareness of colostrum	0.8171	1.18	0.8244
Gender of baby	1.1395	0.9317	1.0067

BF = Breastfeeding; SES = Socio-economic status

3.4 Limitations

Though all participants were interviewed by a female researcher (the first author), it is possible that they may not have been forthcoming in mentioning all problems faced by them in relation to breastfeeding.

4. Conclusion

More employed mothers faced latching problems and other pain. Backache was also frequent complaint. Family pressure and lack of privacy during breast feeding were the predominant psychosocial problems. Both physical and psychosocial problems were associated with socio-economic status, lack of breastfeeding advice, lack of awareness regarding benefits of colostrum and gender of the baby. Health professionals would need specific knowledge, attitudes and skills so that they can help in prevention and management of community-specific problems faced by breastfeeding mothers.

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