

# Peer Educators as Change Leaders – Effectiveness of Peer Education Process in Creating Awareness on Reproductive Health among Women Workers in Textile Industry

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## Abstract

**Context:** India is one of the leading manufacturers of garments with roughly 80% of the workforce dominated by female migrant workers. Lack of education and access to resources in these women contribute to unsafe sexual behaviors, sometimes leading to unwanted pregnancies or sexually transmitted infections (STIs). Awareness raising, and peer education in particular, is extremely effective in addressing reproductive health issues. **Aims:** This study aims to study the effectiveness of peer health education in improving the awareness on reproductive health among women workers in textile industries. **Settings and Design:** A health educational interventional study for women in garment and spinning mills using peer education process carried out over a period of 18 months. **Subjects and Methods:** The process includes orientation to factory management, health needs' assessment, identifying health topics, peer educators' selection, peer educator trainings followed by outreach sessions, and impact measurement. The impact of peer education on reproductive health has been assessed among 597 participants from 9 factories. **Statistical Analysis Used:** Data were entered in SPSS version 24 and analyzed. Results were expressed as percentages. Chi square test was used where appropriate to find association between categorical variables. **Results:** The mean age of the workers in both the groups is 25.4 ( $\pm 9.6$ ) years and 25.1 ( $\pm 8.3$ ) years. In both the groups, most of the workers were single and more than half of them reside within the factory premises. Significant change in menstrual hygiene practices, knowledge in family planning methods, STIs, and cervical cancer has been observed following peer health education. **Conclusions:** A well-designed health educational interventional program using peer educators could be a successful approach to create awareness on sensitive topics.

**Keywords:** Peer health education, reproductive health, textile industry, women workers

## INTRODUCTION

India has made a name for itself as a garment manufacturing center of global renown. The textiles and garments industry contributes 16.63% of India's export earnings. However, India's niche in the global garments market has been carved out at the cost of lakhs of workers in this industry's predominantly female and migrant labor force. Roughly 80% of garment workers are women between the ages of 21 and 25. Most are semi-skilled migrant workers and the sole earning members in their families.

These women workers often suffer from anemia, poor hygiene, inadequate pre- and post-natal care, sexual violence, and exposure to infections and illness. Lack of education and access to resources contribute to unsafe sexual behaviors, sometimes leading to unwanted pregnancies or sexually

transmitted infections (STIs). They also contribute to high rates of malnutrition, maternal and infant mortality, and the spread of sexually transmitted and other preventable diseases such as HIV/AIDS and tuberculosis.<sup>[1]</sup>

Facility-based studies done in Chennai<sup>[2]</sup> and other parts of India<sup>[3]</sup> have shown that unwanted pregnancies among young

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unmarried women are high and emphasize the need for educating them about contraceptives. Data from subnational study conducted in 2006 have shown that around 80% of young women perceive the need for family life education. The same study has shown that peers are the major sources of information regarding contraception.<sup>[4]</sup>

Awareness raising, and peer education in particular, is extremely effective in addressing reproductive health issues. Women are grateful for such education focusing on personal and family health, with information they have seldom received before. An environment focused on education rather than behavior change empowers the women to make better health choices for themselves.

Peer education typically involves training and supporting members of a given group to affect change among members of the same group. The peer education model initiated by business for social responsibility for improving health of women at factories has proven to be an effective model that encourages women to share their knowledge with other family and community members extending the benefits well beyond the factory floor.<sup>[5,6]</sup> A study conducted among women workers in garment industries has shown that peer education approach is effective in raising the awareness on STIs. The study also concludes that it is likely that the health education program may help to reduce the burden of healthcare costs to the community in the long run.<sup>[7]</sup>

This study looks into the effectiveness of peer health education in improving the awareness on reproductive health among women workers in textile industries.

## SUBJECTS AND METHODS

This study is part of an ongoing health education program done by the Department of Community Medicine for women workers in garment and spinning mills located within 100 kilometer radius from our institution. Pooled baseline and endline assessment data of 597 workers from nine industries which include six spinning mills and three garment factories have been analyzed for the study purpose. The study has been approved by the institution's human ethics committee.

Data were entered and analyzed using statistical package for social sciences (SPSS) version 19 (IBM SPSS statistics Company, IBM corporation). Results are presented as percentages. Chi-square test is done for statistical association wherever appropriate.

### Salient steps of the health education program

As part of the program, baseline assessment is conducted by survey method using a prevalidated questionnaire among 10% of women workers chosen by simple random sampling. Health education was then conducted by peer education process. Peer educators were selected by the factory representatives (supervisory level) using the following guidelines: workers who have ability to read and write in local language, working in the factory for at least one year

and having exhibited leadership skills. As a measure to ensure sustainability, nurse, female human resource (HR) representatives, and volunteers from staff level were also included. Peer educator strength in each factory ranged from 10 to 20 proportionate to the total strength of the women workforce.

### Peer education process

Health education in reproductive health issues focused on menstrual hygiene and reproductive tract infections, STIs including HIV and hepatitis B, family planning and cancers. Health education sessions for the peer educators were conducted once in 2 months. Each session was conducted for over 2 h by interactive lecture aided by flip charts and videos supplemented with demonstrations where appropriate. Participatory methods such as body mapping exercise were used to teach anatomy of reproductive system. Energizers were conducted to break monotony and avoid boredom.

Following the session, peer educators conduct outreach sessions during weekends, lunch breaks, etc., for their coworkers in small groups ranging between 10 and 15. These sessions were facilitated by the HR department in coordination with the nurse. Informal discussions also took place in leisure times in the dormitories. A refresher session was conducted after a month following the main session to reemphasize the important points and clarify any doubts the peer educators might have. An endline assessment at the end of the program was done among 10% of randomly chosen workers.

## RESULTS

The pooled data of 597 female workers interviewed during baseline (316) and endline (281) assessment were included for analysis. The mean age of the workers in both the groups is 25.4 ( $\pm 9.6$ ) years and 25.1 ( $\pm 8.3$ ) years.

Table 1 shows the distribution of the female workers based on certain sociodemographic variables.

**Table 1: Distribution of workers based on certain sociodemographic variables**

Sociodemographic variables	Baseline (%) (n=316)	Endline (%) (n=281)
Mean age (years)	25.4 $\pm$ 9.6	25.1 $\pm$ 8.3
Marital status		
Single	69.3	71.8
Married	29.8	26.4
Divorced/widowed/separated	0.9	1.8
Educational status		
None	7.7	6.8
Primary	27.5	30.0
Secondary	53.8	52.5
Postsecondary	11.0	10.7
Residence		
Within the factory premises	52.2	67.3
Home outside factory	47.8	32.7

In both the groups, most of the workers were single and more than half of them reside within the factory premises.

Table 2 shows the comparison of practices during menstruation before and after intervention. A statistically significant ( $P < 0.01$ ) improvement in frequency of changing pads has been observed before and after intervention. The results also reveal a significant ( $P < 0.01$ ) decrease in menstrual problem-related absenteeism.

A significant increase in knowledge on awareness about family planning and its methods has been observed following the intervention [Table 3].

Knowledge regarding both HIV and hepatitis B has improved significantly among the workers, but very few women (17.1%) had awareness about hepatitis B before intervention compared to HIV where the preintervention knowledge was 74.4% [Table 4].

During baseline assessment, it was observed that only 40% women have heard of cervical cancer, and among them, only 24.6% were aware about the symptoms [Table 5]. Following health education, significant increase in knowledge has been observed.

## DISCUSSION

The mean age of the female workers in the textile industry is around 25 ( $\pm 9$  years). Similar age profile was observed in studies conducted among women workers in textile industries in Bangladesh and China.<sup>[8,9]</sup> Around 30% of the workers in our factories have no or limited literacy. This finding is similar to studies done in other parts of India,<sup>[10]</sup> but low literacy rate in Chinese workers is only around 2%.<sup>[9]</sup> More than half of the workers in our study population reside the dormitories within the factories. This is in contrast to situation in others

places<sup>[8]</sup> where most workers come from their residence. Women of younger age together with limited literacy and being away from home warrant need for creating awareness and providing enabling environment for reproductive health issues in industries.

Peer education process is a successful method in bringing about awareness, especially in sensitive health issues. Peer educators could be powerful change agents as evidenced by interventional studies in HIV/AIDS using peer educators.<sup>[11,12]</sup> Our study has also proven that peer education process has led to significant change in knowledge and practice in reproductive health issues. A significant improvement in menstrual hygiene practices (59.7% vs. 84.2%,  $P < 0.05$ ) and decrease in absenteeism (36.6% vs. 27.2%,  $P < 0.05$ ) during menstruation has been observed. There is slight increase in the proportion of workers using sanitary pads, but this difference is not statistically significant. This could be due to a relatively higher proportion of workers already using sanitary pads.

Although 75% of women have heard about family planning methods, the baseline assessment findings showed that only around a quarter of them could mention few contraceptive methods. Peer educators were able to bring a significant improvement in knowledge on the different contraceptive methods (8.2% vs. 55.6%,  $P < 0.05$ ). This is important considering the age profile of the workers and most of them being away from home. Our study has shown that peer education has been effective in bringing about a significant awareness about various contraceptive methods.

Educational intervention on STI focusing on HIV and hepatitis B has brought a significant increase in awareness, especially in hepatitis B (17% vs. 89%,  $P < 0.05$ ). Many of the workplace based health educational interventions focus mainly on HIV<sup>[13]</sup> even though the awareness on hepatitis B is very low<sup>[14]</sup> conducted among women in reproductive age. Our study also showed that the preintervention knowledge was only 17%.

Despite being the leading cause of all cancers among women in India, the awareness of cervical cancer and its symptoms was

**Table 2: Comparison of certain practices during menstruation before and after intervention**

Parameters	Baseline (n=303) (%)	Endline (n=279) (%)	P
Frequency of changing pads more than two times a day	181 (59.7)	235 (84.2)	0.000
Absenteeism during menstruation	111 (36.6)	78 (27.9)	0.026
Use of sanitary pads during menstruation	277 (91.4)	261 (93.5)	0.748

$P < 0.05$  is considered statistically significant

**Table 3: Knowledge regarding family planning and its methods**

Parameters	Baseline (n=316) (%)	Endline (n=281) (%)	P
Heard of family planning	231 (74.3)	257 (94.5)	0.000
Can mention at least two methods of family planning	26 (8.2)	176 (55.6)	0.000

$P < 0.05$  is considered statistically significant

**Table 4: Knowledge regarding HIV and hepatitis B**

Parameters	Baseline (n=316) (%)	Endline (n=281) (%)	P
Heard of HIV	235 (74.4)	260 (92.5)	0.000
Heard of Hepatitis B	54 (17.1)	250 (89.0)	0.000

$P < 0.05$  is considered statistically significant

**Table 5: Knowledge regarding cervical cancer and its symptoms**

	Baseline (%)	Endline (%)	P
Heard of cervical cancer	(n=316) 126 (39.9)	(n=281) 247 (87.9%)	0.000
Heard of cervical cancer symptoms	(n=126) 31 (24.6)	(n=247) 193 (78.1)	0.000

$P < 0.05$  is considered statistically significant

less among our study population. Community-based studies in other parts of the country have shown even higher level of lack of awareness.<sup>[15]</sup> Our study showed a significant improvement in knowledge of cervical cancer (39.9% vs. 87.9%,  $P < 0.05$ ), and its symptoms were brought about following health education (24.6% vs. 78.1%,  $P < 0.05$ ).

## CONCLUSIONS

A significant increase in knowledge and practice has been brought about in menstrual hygiene, family planning methods, STIs, and cervical cancer. Our study has shown evidence that peer education approach is effective in bringing about significant change in knowledge in reproductive health issues. A well-designed health educational interventional program using peer educators could be a successful approach to create awareness on sensitive topics.

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## Conflicts of interest

There are no conflicts of interest.

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