

COMMUNICATION SUPPORT FOR TOBACCO DISUSE BY SLUM WOMEN

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Abstract:

Chewing tobacco and using tobacco-based products can lead to poor health outcomes. Understanding the factors associated with tobacco use and smoking is important for interventions. In this study, the knowledge of slum women about their environmental health was assessed by applying an Ex-post facto research design. The study aimed to develop a health education programme for female respondents, implement it, and evaluate its impact.

Multistage random sampling design was used, with purposive selection of the state of Uttar Pradesh and the city of Varanasi. Out of 12 wards in Varanasi, three - Shivpur, Dashashvamedha and Nagwa were randomly selected, and one slum from each ward was also randomly selected. Afterwards, 90, 150, and 84 families were respectively selected from Indarpur, Naria and Jangambadi, through proper allocation based on the population of these slums. Thus, the sample size for the present study consisted of 324 women from slums.

The socioeconomic scale developed by Kuppuswamy (2019), duly modified, was used to gather socioeconomic data for the project. To assess the knowledge status, a structured schedule was prepared in consultation with various sources, and respondents were categorized as high ($>M+S.D.$), medium ($M\pm S.D.$), and low ($<M-S.D.$) based on the score obtained using mean and standard deviation. The study found a direct relationship between respondents' socioeconomic status and their level of knowledge regarding environmental health. For conducting the action programme before and after without control design, was applied. The data was analyzed statistically using chi-square and paired t-tests.

Key words: Environmental health, Tobacco-based products (TBP), Gool or Sunghani

Introduction

The tobacco epidemic is one of the most significant public health threats the world has ever faced, killing over 8 million people worldwide each year. More than 7 million of those deaths are the result of direct tobacco use, while around 1.3 million are the result of non-smokers being exposed to second-hand smoke (IHME, 2023). India is home to a substantial number of tobacco users, frequently characterized by people who consume both smoke and smokeless tobacco, the synergistic effect of

which accounts for a significant number. Lack of awareness among people belonging to poor socioeconomic strata of society, societal influence, and poor implementation of anti-tobacco laws could be the possible reasons for its widespread incidence. Hence, more rigorous anti-tobacco campaigns and widespread implementation of anti-tobacco regulations are the need of the hour (Chabra, A. et al., 2019). According to the Global Adult Tobacco Survey (GATS) conducted in 2016-17, the overall prevalence of smoking tobacco use is 10.38%, and smokeless tobacco use is 21.38% in India. Of all adults, 28.6% currently consume tobacco either in smoke or smokeless form, including 42.4% of men and 14.2% of women (Mumbai and Ministry of Health and Family Welfare, 2020).

Tobacco control programs need more targeted interventions for specific groups in the population. Despite all cessation policies, people in India are still consuming tobacco in both forms. Tobacco users should be strongly encouraged to quit to eliminate long-term detrimental effects on their health. The decline in tobacco use shows some positive signs for tobacco prevention and cessation programs in India, but it is yet far from achieving the goal of a tobacco-free India. (Rai, B. 2021).

Women are at the core of all household activities. She is the guide of home hygiene practices, inculcating in family members different health-related cultures and habits, on which the physical, biological, and social development of a person depends. In general, women tend to neglect their health needs, which can subsequently affect their children and other family members. Therefore, the study aimed to develop a health education programme for female respondents, implement it, and evaluate its impact.

Review of literature:

Smokeless tobacco products include dry snuff, moist snuff, plug/twist, loose-leaf chewing tobacco, snus, and dissolvable products. Some cigarette companies advertise smokeless tobacco as a substitute for smoking in places where tobacco smoking is not allowed. (Timberlake DS, et. al, 2011)

Smokeless tobacco (SLT) use is documented in 120 countries (Sinha, DN. et al. 2010). India has the highest number of SLT users in the world. Of the 346 million global consumers, India alone has 152.4 million men and 80.8 million SLT consumers (US NCI and WHO, 2016). There has been a substantial increase in SLT across all age groups (GATS, 2017). The NSS and many other nationally representative surveys and community-based studies have shown the socio-economic, cultural, demographic, religious, and caste-based correlates of tobacco consumption. They also showed that smoking and smokeless forms of tobacco are significantly higher in the rural areas, among uneducated poor people, and the socially disadvantaged castes of Indian society. Tobacco consumption among the poor is continuing, raising questions about the penetration of tobacco control policies (Bhan N, 2012).

Research Methodology

The present study assessed the environmental health knowledge of slum women using an ex-post facto research design. A multistage random sampling design was adopted, with the selection of the state of Uttar Pradesh and the city, Varanasi. Three wards (Shivpur, Dashashvamedha and Nagwa) were randomly selected from the 12 wards in Varanasi. One slum from each ward was chosen randomly. After properly allocating the population of these slums, 90, 150, and 84 families were respectively selected from Indarpur, Naria and Jangambadi. Thus, the sample size for the present study was 324 slum women. The socio-economic scale developed by Kuppuswamy (2020), which was appropriately modified, was used to collect socio-economic data for the study. To evaluate the knowledge status, a structured schedule was prepared in consultation with various sources. Respondents were classified as high ($>M+S.D.$), medium ($M\pm S.D.$), and low ($<M-S.D.$) based on the score obtained from the mean and standard deviation. A direct relationship has been found between the socio-economic status and the respondents' level of knowledge regarding environmental health. For conducting action programme, a before and after without control experimental design was applied. The data was analyzed using chi-square and paired t-test.

Hypothesis:

There is no difference between the means of the use of Tobacco based products (TBP) before and after health education.

There is no association between age and current use of TBP.

There is also no association between caste and the frequency of using TBP per day.

Results and Discussion:

Socio-economic profile of the respondents

Table 1: Distribution of respondents according to their Age

Age group (in years)	Number of Respondents	Percentage
20-24	21	6.16
24-28	45	13.89
28-32	123	37.96
32-36	105	32.41
50-60	30	9.09
Total	324	100

The table 1.shows that the majority of the respondents (37.96%) belonged to the age group of 28-32 years, followed by 32.41% of the 32-36 year age group.

Table 2: Distribution of respondents according to their religion and occupational status

Religion	Hindu		Muslim		Total	
	No.	%	No.	%	No.	%
Working	147	62.82	21	23.34	56	51.85
Non-Working	87	37.18	69	76.66	52	48.22
Total	234	100	90	100	324	100

Table 2.shows that the majority of Hindu women (62.82%) were employed, while 23.34% of Muslim women were employed. Overall, 51.85% of respondents worked as maidservants or sweepers.

Table 3: Distribution of respondents based on their educational level

Religion	Hindu		Muslim		Others	
	No.	%	No.	%	No.	%
Educational Status						
Illiterate	33	14.11	-	-	33	10.19
Functional literacy (can read & write only)	24	10.25	-	-	24	7.41
Primary	99	42.31	24	26.66	123	37.96
Eight	66	28.21	60	66.67	126	38.88
High School	12	5.12	6	6.67	18	5.56
Total	234	100	90	100	324	100

Table 3 shows the low level of education in the study area. 67.94% of Hindu women were illiterate. In this area, a programme of literacy was conducted by World Literacy of Canada. Thus, women were interested in taking part and learning. Overall, 21.29% of women had acquired functional literacy. The institution had its center in Assi area of Varanasi. 11.54% of Hindu and 26.67% of Muslim women had studied upto eight class. It was found that all 30 Muslim women were studying their religious education. They received training in studying the Quran, their holy book. Therefore, it could be said that no Muslim women were illiterate.

Table 4: Distribution of respondents based on their family's monthly income:

Income (Rs.)	Number of Respondents	Percentage
Less than 10,000	15	4.63
10,000-14,000	99	30.55
14,100- 18,000:	96	29.64
18,100- 20,000	114	35.18
Total	324	100

Except 35.18% of respondents, all earned less than Rs. 18,000 as the monthly family income. Males were generally working as laborers, while females worked as maidservants. 72.22% of Muslim respondents were employed sweepers. In some households (20%), women were government employees, but their husbands were not engaged in any job.

Table 5 : Distribution of respondents based on the number of family members in each family.

Family Members (No.)	Number of Respondents	Percentage
2 -4	27	8.33
5 – 6:	189	58.33
7 – 8	108	33.34
Total	324	100

The table 5 illustrates the lack of family planning practices in these households. The majority of women (58.33%) have 5–6 members in their families. Only 8.33% of families had 2–4 members. It was also observed that Muslim women tend to have more children.

Table 6: Distribution of respondents according to their Socio-Economic Level (SEL)

SEL	Score	Number	Percentage
High	32	33	10.19
Medium	20	57	17.59
Low	8	234	72.22
Total	-	324	100

72.22% of respondents belonged to the low category of socio-economic level, and only 11 women came under the category of high socio-economic level.

*DRUG ABUSE*Table 7: Distribution of respondents based on the type of addiction.

Type of addition	Number of Respondents	Percentage
Bidi	15	4.63
Smokeless tobacco Products	195	60.19
Both of the above	6	1.85
No one	108	33.33
Total	324	100

Table 7 shows that out of 324 respondents, 216 (66.67%) were using tobacco in various forms. 4.63% of women have been using bidis, and they belong to the age group of 32 – 36 years. Previously, they were accustomed to taking it in tobacco form. 60.19% of women were using tobacco as Surti/ Gutkha/ Sunghani, etc.

Table 8: Distribution of respondents based on the initiation of addictive habits.

Beginning of addiction	Number Of Respondents	Percentage
Since childhood	60	13.89
10- 15 years	30	27.78
16 - 25 years	66	30.55
After 25 years	60	27.78
Total	216	100

13.89% women had been using tobacco-based products (TBP) since childhood, as their parents developed the habit of cleaning their teeth with gool, which they had continued till now. 30.55% women used TBP first time between the ages of 16-25 years. After 25 years, 27.78% of women started taking bidi/ sunghani, etc.

Table 9: Distribution of respondents based on age and their usage of TBP per day.

Use of TBP (No. of Times)	One	Two	Three	Total
Age (in years)				
Below 25	15 (24.59)	21 (34.42)	25 (40.98)	61 (34.42)
Above 25	50 (37.5)	32 (22.5)	73 (40.00)	155 (65.57)
Total	65 (32.78)	53 (26.22)	98 (40.98)	216

$$\chi^2 = 1.439 \quad \text{d.f.} = 2 \quad P > 0.5$$

It can be observed from Table 9 that the computed value (1.439) was greater than the tabulated value (1.386) with 2 d.f. at the 0.5 level of significance. Hence, the null hypothesis was rejected. There was an association between age and the number of times women were using tobacco products as tooth powder. It may be seen that 34.42% of respondents who were using TBP belonged to the age below 25 years. 42.86% of this category were using this tobacco product three times a day. Overall, 26.22% of subjects used TBP two, one, and three times.

Table 10: Caste-wise distribution of females according to the frequency of TBP usage per day.

Use of TBP (No. of Times)	One	Two	Three	Total
Caste				
General & OBC	20 (22.98)	32 (36.78)	35 (40.22)	87 (40.28)
SC	42 (32.55)	27 (20.94%)	60 (46.51)	129 (59.72)
Total	62 (28.71)	59 (27.31)	95 (43.98)	216

$$\chi^2 = 20.625, \text{ df.} = 2, P > 0.5$$

Among scheduled caste women, 46.51% were using tobacco-mixed tooth powder three times a day. In the case of women belonging to the general and other backward classes, 40.22% were using this product three times. The calculated value (2.625) was

found greater than the tabulated value (1.386). Thus, the null hypothesis was rejected at the 0.5 probability level, indicating a correlation between caste and the frequency of gool/sunghani use among women. Subramanian, S.V. et. al (2004) reported in his study that scheduled castes were more likely to consume tobacco than other caste groups.

Table 11: Distribution of respondents by common reasons for starting TBP.

Reason	Number of Respondent	Percentage
For a change	9	4.17
For socialization	75	34.73
To relieve stress	30	13.88
Improving performance	6	2.78
To get relief from tooth problems	90	41.66
To declare independence	6	2.78
Total	216	100

34.73% women started using TBP with their colleagues, friends, or after seeing other members of the family using it. 4.17% started out of curiosity to feel the reactions of their body. The majority of respondents, i.e., 41.66%, used smokeless products such as paste or powder to cure their dental problems.

Table 12: Distribution of respondents according to their knowledge about the harmful effects of TBP on health.

Knowledge	Number of Respondents	Percentage
Ignorant	60	27.78
Not considered too harmful	90	41.66
Worried about their tobacco habit	66	30.56
Total	216	100

27.78% of women had no knowledge of the harmful effects of Gool and other smokeless tobacco products. They were using these products to be social and for enjoyment on seeing others habit. Only 30.55% addicted women had doubt about its utility and wanted to give up their habit altogether but they were still not rigid. Others didn't have such intension and they were not sure of its continuation.

Table 13: Distribution of respondents according to the health problems faced by addicted women.

Problem	Number of Respondents	Percentage
Mouth ulcer	39	18.06
Repeated cough	21	9.72
Breathlessness	15	5.55
No Problem	141	65.27
Total	216	100

Sample subjects who were addicted faced health problems such as mouth ulcers (18.06%), repeated cough (9.72%), and breathlessness (5.55%).65.27% had no difficulty in using tobacco products.

Action Programme

Analyzing the situation and selecting topic for intervention:

Based on the pre-test, it could be said that the women in the study did not prioritize their social health status.66.67% respondents were using tobacco products without caring for its effect on health. 13.89% subjects were addicted since childhood due to their parent's misconception. They believed that tobacco based tooth powder could not cause health hazard, instead they could get rid of tooth problems by using such products. So, for reducing their dependence on tobacco products and improving their social health, an educational intervention programme named "Tambakoo Chodo Cancer Se Muh Modo" was launched in the study area.

Approaches

Creating Fear

First Meeting: Women respondents in the study area were gathered, and a group discussion was organized. Photographs and posters related to the tobacco affected patients suffering from deadly diseases like cancer and other horrendous injuries was shown and distributed to acquaint women with hazardous affect of tobacco based products which were being used by them frequently. They were made aware of the fact that whatever relief they were getting through Moosa Ka Gool or Sunghani etc. as tooth powder might be proved responsible for incapability to open their mouth. Pictures of effected people before using tobacco products and after regular use made them aware of the dangerous impact of these products.

This discussion concluded with the aim of assessing individuals in their own households who were regularly addicted to tobacco-based products.

Second Meeting: After 15 days, in the second meeting, women came with feed back i.e. their observations, their analysis of the problems due to tobacco based products, causes of initiation and continuous use and possible solution of the problems at individual and family level. They asked for the best alternative for reducing their dependence on Moosa ka gool or sughani (tooth powder).

On demand, an educational programme was arranged next week. A method demonstration was used to teach the recipe for making herbal tooth powder.

Activities calendar.

Activity	Outcome Expected	Resources/Teaching Methods	Time
Focused Group Discussion	Women have realized the health hazards associated with tobacco-based products (TBP), including misconceptions, addictive behavior, problems, causes, and possible remedies. Respondents came to know about existence of TBP in their daily life. They were persuaded to keep a watch over these issue and family members who were addicted, their problem, causes and possible solution for better future.	Posters Flash Cards, Photographs	1-1-2020
Group Discussion	Getting Feedback	Posters, Photographs	16-1-2020
Launching Educational Programme	Disseminating knowledge, developing skills, and creating awareness.	Method Demonstration	22-1-2020
Distribution of Samples	Following the process of adoption.	Distributing samples of herbal tooth powder.	22-1-2020
Monitoring	Seeing the progress of work	Providing necessary	1-2-2020

		ingredients and checking	
Evaluation	Checking both qualitative and quantitative indicators.	Conducting door-to-door visits.	1-4-2020

*Qualitative Indicator:***Table 14: Distribution of respondents based on their use of herbal tooth powder:**

Statement	Yes	No	Total
Are you using Herbal Tooth Powder?	128 (59.25)	88(40.74)	216

Figures in parentheses indicate the percentage.

It was found that 59.02% families in the study area started using the “Gunkari Dant Manjan” (GDM) after health education. Slum dwellers learnt the recipe of making herbal tooth powder. They were also interested in keeping the recipe for using methi dana (Fenugreek) to quit their tobacco habit. These products were safe and easy to prepare.

Quantitative Indicator

Table 15: Distribution of respondents according to the use of gool/sunghani before and after health education.

Current use of TBP (number of times)	Number of Respondents			
	Before Health Education (%)		After Health Education (%)	
	No.	%	No.	%
One	60	27.78	67	31.01
Two	72	33.34	57	26.38
Three	84	38.88	47	21.76
Not Using	-	-	45	20.85
Total	216	100	216	100

$t = 1.05$, d. f. = 60, $P > 5$ percent

Null hypothesis: $H_0: \mu_{bhe} = \mu_{ahe}$.

Alternative hypothesis: $H_a: \mu_{bhe} > \mu_{ahe}$

bhe = before health education

ahe = after health education

It may be observed from table 15 that 20.85% women had stopped using gool/sunghani after receiving health education. Women (38.88%) previously used it three times a day had reduced to 21.76% .26.38% respondents were continuing the use of tobacco products two times, while previously 33.34% were in this category. After conducting a paired t-test, it was discovered that the calculated t-value, 1.05 was greater than the tabulated value, i.e. 0.68 with 60 degree of freedom at 5 percent level of significance, Hence, the null hypothesis was rejected and alternative hypothesis was accepted that the mean of the use of (number of times) gool/sunghani before health education was greater than number of times gool/sunghani was used after health education.

Conclusion

It was found that there was a direct relationship between the socioeconomic status and knowledge level of respondents regarding environmental health.

The programme proved successful, as regular visits and constant efforts by the researcher made 39.22% of women ready to quit using tobacco-based products. On applying 't' test it was found that the mean of using TBP (no. of times) before health education was greater than mean of TBP used per day after health education. The success of action program demonstrated that respondents were eager to learn basic health practices that they could adopt within their limited means.

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