

Knowledge and Attitude Towards Pap Smear Screening Among Working Women in Selected Areas of Bathinda, Punjab: A Cross-Sectional Study

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Abstract: Cervical cancer remains a major public health concern among women, particularly in developing countries where awareness and utilization of screening services are inadequate. Pap smear screening is an effective method for early detection of precancerous cervical lesions and prevention of cervical cancer. The present study was conducted to assess the knowledge and attitude towards Pap smear screening among working women in selected areas of Bathinda, Punjab. A quantitative descriptive cross-sectional research design was adopted among 65 working women residing in selected urban and rural areas of Bathinda, Punjab. Participants were recruited using a non-probability convenience sampling technique. Data were collected using a structured knowledge questionnaire and a Likert attitude scale and analyzed using descriptive and inferential statistics. The findings revealed a mean knowledge score of 3.21 ± 1.25 , indicating an average level of knowledge, and a mean attitude score of 17.46 ± 3.68 , reflecting a moderately favourable attitude towards Pap smear screening. Educational qualification and occupation showed significant association with knowledge scores, whereas educational qualification and previous history of undergoing Pap smear screening showed significant association with attitude scores. A weak positive correlation was observed between knowledge and attitude ($r = 0.27, p < 0.05$). The study concluded that working women possessed moderate knowledge and moderately favourable attitudes towards Pap smear screening. Structured educational interventions and awareness programs are recommended to improve screening awareness and promote early detection practices.

Keywords: Pap smear, cervical cancer screening, knowledge, attitude, working women

1. Introduction

Despite being largely preventable through timely screening and treatment, cervical cancer remains a significant contributor to disease burden among women worldwide. The World Health Organization (WHO) reported approximately 660,000 new cases and 350,000 deaths due to cervical cancer in 2022, making it the fourth most common cancer among women globally. India contributes a substantial proportion of the global cervical cancer burden, accounting for nearly one-fourth of cervical cancer cases worldwide. Although effective preventive and screening measures are available, cervical cancer continues to pose a major public health challenge in developing countries

Pap smear screening is a simple, safe, economical, and widely accepted method for early detection of precancerous and cancerous cervical lesions. Regular screening has significantly reduced cervical cancer incidence and mortality in countries with organized cervical cancer screening programs. However, awareness and utilization of Pap smear screening services remain inadequate in India due to lack of knowledge, misconceptions, embarrassment, fear of diagnosis, sociocultural barriers, and limited access to screening facilities.

Working women constitute an important segment of the population because they are generally more educated, socially active, and economically independent. However, occupational responsibilities, time constraints, and neglect of preventive healthcare practices often reduce their participation in routine screening programs. Their

knowledge and attitude towards Pap smear screening not only influence their own health-seeking behavior but also impact awareness within families and communities.

Several studies have documented insufficient awareness and poor uptake of Pap smear screening among women. Inadequate knowledge regarding screening recommendations and benefits may delay participation in preventive health services and timely identification of cervical abnormalities.

Assessment of knowledge and attitude regarding Pap smear screening among working women is therefore essential for identifying existing gaps in awareness and planning appropriate educational interventions and cervical cancer prevention strategies. Hence, the present study was undertaken to assess the knowledge and attitude towards Pap smear screening among working women in selected areas of Bathinda, Punjab.

Objectives of the Study

- 1) To assess the knowledge regarding Pap smear screening among working women.
- 2) To assess the attitude towards Pap smear screening among working women.
- 3) To determine the association of knowledge and attitude regarding Pap smear screening with selected socio-demographic variables.
- 4) To determine the correlation between knowledge and attitude regarding Pap smear screening among working women.

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2. Methodology

Research Approach and Research Design

A quantitative non-experimental research approach with a descriptive cross-sectional research design was adopted for the study.

Research Setting

The study was conducted in selected urban and rural communities of Bathinda, Punjab.

Target Population

The target population comprised working women employed in government, private, contractual, and self-employed sectors.

Sample Size and Sampling Technique

A sample of 65 working women was selected using non-probability convenience sampling technique.

Inclusion Criteria

Working women who were:

- Aged between 21–60 years.
- Willing to provide informed consent for participation in the study.
- Able to understand English, Hindi, or Punjabi.

Exclusion Criteria

Working women who were:

- Diagnosed with cervical cancer.
- Unavailable during the period of data collection.

Tool for Data Collection

The tool consisted of three sections:

Section A

Socio-demographic variables including age, place of residence, educational qualification, occupation, monthly family income, marital status, frequency of visit to gynecologist, and history of undergoing Pap smear screening.

Section B

A structured knowledge questionnaire consisting of 6 items regarding Pap smear screening.

Section C

A 5-point Likert attitude scale consisting of 5 statements regarding Pap smear screening.

Data Collection Procedure

Prior to data collection, formal permission was obtained from the concerned authorities. Participants were informed about the purpose of the study, and informed consent was obtained from those who agreed to participate. Measures were taken to ensure confidentiality of the information collected and anonymity of all respondents throughout the research process. Data were gathered using a structured questionnaire designed to assess knowledge and attitude regarding Pap smear screening. On average, respondents required approximately 15–20 minutes to complete the questionnaire.

Plan for Data Analysis

Descriptive statistics such as frequency, percentage, mean, and standard deviation were used for data analysis. Inferential statistics including Chi-square test and Pearson correlation coefficient were applied to determine the association and correlation between selected variables.

3. Results

Table 1: Frequency and Percentage Distribution of Working Women According to Selected Socio-Demographic Variables (N = 65)

S. No.	Socio-demographic Variables	Frequency (f)	Percentage (%)
1.	Age (Years)		
	21–30	11	16.92
	31–40	36	55.38
	41–50	13	20.00
2.	51–60	5	7.69
	Place of Residence		
	Urban	20	30.77
3.	Rural	45	69.23
	Educational Qualification		
	Up to 10th standard	20	30.77
4.	Senior secondary	25	38.46
	Graduation and above	20	30.77
	Type of Occupation		
5.	Government job	30	46.15
	Private job	15	23.08
	Self-employed	10	15.38
	Contractual / Daily wage	10	15.38
6.	Monthly Family Income (₹)		
	< 10,000	10	15.38
	10,001–20,000	20	30.77
	20,001–30,000	15	23.08
7.	> 30,000	20	30.77
	Marital Status		
	Unmarried	10	15.38
	Married	50	76.92
	Widowed	3	4.62
8.	Divorced / Separated	2	3.08
	Frequency of Visit to Gynecologist		
	Never	12	18.46
	Only when sick	35	53.85
9.	Annually	10	15.38
	Every 2–3 years	8	12.31
	Have You Undergone Pap Smear?		
10.	Yes	15	23.08
	No	50	76.92

Table 1 depicts the frequency and percentage distribution of working women according to selected socio-demographic variables (N = 65). The majority of the participants 36 (55.38%) belonged to the age group of 31–40 years, whereas only 5 (7.69%) belonged to the age group of 51–60 years. Most of the participants 45 (69.23%) were from rural areas. Regarding educational qualification, most participants 25 (38.46%) had senior secondary education, while equal proportions 20 (30.77%) had education up to 10th standard and graduation or above. With respect to occupation, the majority 30 (46.15%) were employed in government jobs. Most participants 20 (30.77%) had a monthly family income between ₹10,001–20,000 and above ₹30,000 respectively. The majority of the participants 50 (76.92%) were married. Regarding frequency of visit to gynecologist, 35 (53.85%)

participants visited only when sick. Most participants 50 (76.92%) had never undergone Pap smear screening.

Table 2: Frequency and Percentage Distribution of Working Women According to Level of Knowledge Regarding Pap Smear Screening (N = 65)

Level of Knowledge	Frequency (f)	Percentage (%)
Poor Knowledge	18	27.69
Average Knowledge	34	52.31
Good Knowledge	13	20.00

Table 2 depicts the frequency and percentage distribution of working women according to level of knowledge regarding Pap smear screening (N = 65). The findings revealed that the majority of the participants 34 (52.31%) had average knowledge regarding Pap smear screening, followed by 18 (27.69%) participants who had poor knowledge. Only 13 (20.00%) participants demonstrated good knowledge regarding Pap smear screening.

Table 3: Descriptive Statistics of Knowledge Scores Regarding Pap Smear Screening (N = 65)

Parameter	Value
Sample Size (N)	65
Minimum Score	1
Maximum Score	6
Mean Score ± SD	3.21 ± 1.25
Median	3

Table 3 depicts the descriptive statistics of knowledge scores regarding Pap smear screening among working women. The mean knowledge score was 3.21 ± 1.25 with a

Table 6: Association of Knowledge and Attitude Regarding Pap Smear Screening with Selected Socio-Demographic Variables Among Working Women (N = 65)

S. No.	Socio-demographic Variables	Knowledge χ^2	df	p-value	Attitude χ^2	df	p-value
1.	Age	2.11	4	0.71	1.89	4	0.76
2.	Place of Residence	1.42	2	0.49	2.14	2	0.34
3.	Educational Qualification	8.36	4	0.03*	7.28	4	0.04*
4.	Type of Occupation	7.95	6	0.04*	4.96	6	0.55
5.	Monthly Family Income	3.84	6	0.69	3.41	6	0.75
6.	Marital Status	2.27	4	0.81	1.73	4	0.88
7.	Frequency of Visit to Gynecologist	5.62	6	0.12	5.94	6	0.09
8.	Have You Undergone Pap Smear	4.18	2	0.11	6.12	2	0.04*

*Significant at p < 0.05

Table 6 depicts the association of knowledge and attitude regarding Pap smear screening with selected socio-demographic variables among working women. Educational qualification and occupation showed statistically significant association with knowledge regarding Pap smear screening, whereas educational qualification and history of undergoing Pap smear screening showed statistically significant association with attitude towards Pap smear screening at p < 0.05 level.

Table 7: Correlation Between Knowledge and Attitude Regarding Pap Smear Screening Among Working Women (N = 65)

Variables	Correlation Coefficient (r)	p-value
Knowledge and Attitude	0.27	0.03

median score of 3. The minimum and maximum obtained scores were 1 and 6 respectively, indicating an average level of knowledge among the participants.

Table 4: Frequency and Percentage Distribution of Working Women According to Attitude Towards Pap Smear Screening (N = 65)

Level of Attitude	Frequency (f)	Percentage (%)
Unfavourable Attitude	1	1.54
Moderately Favourable Attitude	38	58.46
Favourable Attitude	26	40.00

Table 4 depicts that the majority of working women 38 (58.46%) demonstrated a moderately favourable attitude towards Pap smear screening, whereas 26 (40.00%) had favourable attitude and only 1 (1.54%) had unfavourable attitude.

Table 5: Descriptive Statistics of Attitude Scores Regarding Pap Smear Screening (N = 65)

Parameter	Value
Sample Size (N)	65
Minimum Score	11
Maximum Score	25
Mean Score ± SD	17.46 ± 3.68
Median	17

Table 5 shows that the mean attitude score among working women was 17.46 ± 3.68, suggesting an overall moderately positive perception towards Pap smear screening.

Table 7 depicts the correlation between knowledge and attitude regarding Pap smear screening among working women. A weak positive correlation was observed between knowledge and attitude scores (r = 0.27), which was statistically significant at p < 0.05 level. The findings indicate that improvement in knowledge regarding Pap smear screening may contribute to development of more favourable attitudes towards cervical cancer screening among working women.

4. Discussion

The present study was conducted to assess the knowledge and attitude towards Pap smear screening among working women in selected areas of Bathinda, Punjab. The findings of the study revealed that the majority of participants 34 (52.31%) had average knowledge regarding Pap smear screening, whereas only 13 (20.00%) participants

demonstrated good knowledge regarding Pap smear screening. The findings are consistent with the study conducted by Singh et al., which reported moderate levels of knowledge regarding cervical cancer screening among working women in India. Similarly, Rashid et al. observed inadequate awareness and limited knowledge regarding Pap smear screening among employed women. These findings emphasize the need for focused educational interventions to enhance awareness and encourage informed utilization of cervical cancer screening services.

The present study further revealed that the majority of participants 38 (58.46%) demonstrated a moderately favourable attitude towards Pap smear screening, whereas 26 (40.00%) participants had favourable attitudes. Similar findings were reported by Bansal et al., who observed that although women had positive perceptions regarding cervical cancer prevention, hesitancy towards undergoing Pap smear screening still existed due to embarrassment, fear of diagnosis, and social stigma. Ebu et al. also reported that fear, misconceptions, and lack of awareness negatively influenced women's attitudes towards cervical cancer screening practices.

Educational qualification and occupation showed statistically significant association with knowledge regarding Pap smear screening. Women with higher educational qualifications demonstrated better knowledge levels compared to women with lower educational status. Similar findings were observed in previous studies, which reported that education plays an important role in improving awareness regarding cervical cancer prevention and screening practices.

The study also revealed statistically significant association between attitude towards Pap smear screening and educational qualification as well as previous history of undergoing Pap smear screening. Women who had previously undergone Pap smear screening demonstrated more favourable attitudes towards screening services.

A weak positive correlation was observed between knowledge and attitude regarding Pap smear screening among working women ($r = 0.27$, $p < 0.05$). This finding suggests that improvement in awareness and educational interventions may contribute towards development of favourable attitudes and increased acceptance of cervical cancer screening practices among women.

5. Conclusion

The present study concluded that working women possessed moderate knowledge and moderately favourable attitudes towards Pap smear screening. Despite increasing awareness regarding cervical cancer prevention, gaps still exist in screening-related knowledge and utilization practices among women. The findings emphasize the need for structured health education programs and awareness campaigns to improve knowledge, promote favourable attitudes, and encourage early cervical cancer screening practices.

6. Recommendations

- 1) Structured educational programs regarding Pap smear screening should be conducted among working women.
- 2) Awareness campaigns regarding cervical cancer prevention should be organized at community and workplace levels.
- 3) Similar studies may be conducted on larger samples and different populations.
- 4) Interventional studies may be conducted to assess the effectiveness of educational programs regarding Pap smear screening.

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