



## CORRELATION BETWEEN KNOWLEDGE AND ATTITUDE REGARDING TOBACCO USE AFTER A PUBLIC AWARENESS PROGRAMME IN CUTTACK, ODISHA

Mrs. Saibalini Parida\* | Dr. Darshan Kaur Sohi\*\* | Dr. Manjubala Dash\*\*\*

\*Research Scholar, Himalayan University, Itanagar, Arunachal Pradesh, India.

\*\*Research Supervisor, Himalayan University, Itanagar, Arunachal Pradesh, India.

\*\*\*Co-Supervisor, Himalayan University, Itanagar, Arunachal Pradesh, India.

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### ABSTRACT

Tobacco use remains a major public health concern, with knowledge and attitude serving as critical determinants of behaviour. While public awareness programmes can improve knowledge and foster favourable attitudes independently, the relationship between knowledge acquisition and attitude modification is less explored in psychiatric populations.

This study assessed correlation between knowledge and attitude among 150 psychiatric outpatients in Cuttack, Odisha, who participated in a structured public awareness programme. Using structured interviews for knowledge and Likert-scale questionnaires for attitude, pre- and post-intervention data were collected. Post-test analysis revealed moderate positive correlation ( $r = 0.126$ ) between knowledge scores and attitude scores, indicating that as knowledge improved, attitudes became more favourable.

The study highlights that public awareness programmes not only enhance knowledge and attitudes individually but also positively influence the interrelationship between cognitive understanding and affective orientation, underscoring the importance of integrated educational interventions.

**Keywords:** Knowledge-attitude correlation, Tobacco use, Public awareness programme, Psychiatric patients, Cuttack, Odisha.

### ABOUT AUTHORS:



Mrs. Saibalini Parida is a Ph.D. Scholar at Himalayan University, Itanagar, Arunachal Pradesh, India. Her research interests include addiction prevention, health communication, and mental health education. She is dedicated to advancing public health through innovative and evidence-based awareness interventions.



Dr. Darshan Sohi is a distinguished research supervisor at Himalayan University, Itanagar, Arunachal Pradesh, India. With extensive experience in nursing and healthcare sciences, she has guided numerous postgraduate and Ph.D. scholars in evidence-based research. Her work emphasizes patient-centered care, innovative teaching, and the advancement of nursing education and research in India.



Dr. Manjubala Dash is a dedicated nursing educator and researcher with extensive experience across diverse domains of nursing and healthcare sciences, including maternal and women's health. She has successfully guided numerous postgraduate and Ph.D. scholars in clinical and educational research, emphasizing evidence-based practices, and preventive healthcare interventions.



## INTRODUCTION

Tobacco consumption remains one of the leading preventable causes of morbidity and mortality globally, contributing to an estimated 8 million deaths annually, including approximately 1.2 million deaths from exposure to second-hand smoke (World Health Organization, 2021). Tobacco use is associated with a wide range of adverse health outcomes, including cardiovascular disease, respiratory illness, cancer, and psychological disorders. Among psychiatric populations, the prevalence of tobacco use is notably higher compared to the general population, with estimates ranging from 40% to 70% depending on the setting and psychiatric diagnosis (Lasser et al., 2000; Prochaska et al., 2018). Factors contributing to this elevated prevalence include stress, peer influence, curiosity, cultural norms, and coping mechanisms for psychiatric symptoms.

Knowledge about the ill effects of tobacco and positive attitudes toward cessation are critical determinants of behavioural change (Prochaska et al., 2018; Fiore et al., 2020). Individuals with accurate knowledge of health risks are more likely to develop favourable attitudes toward quitting, seek cessation support, and adopt healthier lifestyles. Conversely, misconceptions about tobacco—such as beliefs that smoking relieves stress, chewing tobacco is safer, or occasional use is harmless—can undermine cessation efforts and perpetuate harmful behaviours (Sreeramareddy et al., 2019).

Public awareness programmes serve as structured interventions aimed at enhancing knowledge and shaping attitudes. These programmes may include multimedia presentations, interactive sessions, group discussions, printed materials, or audiovisual aids, and have been shown to be effective in diverse populations (Kaplan et al., 2020; Mishra et al., 2018). However, a critical question remains: Does increased knowledge consistently translate into improved attitudes? Understanding the relationship between knowledge acquisition and attitude change is essential for evaluating the true effectiveness of educational interventions and for predicting sustained behavioural outcomes such as tobacco cessation (Patel et al., 2018).

This study aimed to evaluate the correlation between knowledge and attitude scores among psychiatric OPD patients following a structured public awareness programme in Cuttack, Odisha. By investigating this relationship, the study seeks to provide insight into the mechanisms by which health education influences behavioural change in vulnerable populations and to guide future intervention strategies.

## LITERATURE REVIEW

Previous research indicates that while knowledge acquisition and attitude change can occur independently, there is often a positive correlation between the two, particularly in health-related behaviours (Sreeramareddy et al., 2019; Rosenstock et al., 2015). In the context of tobacco control, knowledge of health risks, social consequences, and cessation strategies can influence motivation, reinforce favourable attitudes, and encourage behavioural change. For example, individuals who understand the severe cardiovascular and respiratory consequences of smoking are more likely to develop a negative attitude toward tobacco use and seek cessation support (Fiore et al., 2020; WHO, 2021).

Psychiatric populations, however, present unique challenges. Cognitive deficits, psychiatric symptoms, and social stressors may affect the way knowledge is received and attitudes are formed. Studies have shown that educational interventions in psychiatric settings must simultaneously target both knowledge and attitude to achieve meaningful and sustained behaviour change (Patel et al., 2018; Lasser et al., 2000). Interventions that fail to address attitudinal barriers—such as perceived benefits of tobacco use or social acceptance—may increase knowledge without influencing behaviour.

Quantitative assessment of the knowledge-attitude relationship in tobacco interventions remains limited, particularly in Indian psychiatric populations. Sreeramareddy et al. (2019) found a moderate positive correlation between knowledge of tobacco harms and favourable cessation attitudes in general hospital populations, while Patel et al. (2018) highlighted the need for structured interventions to address misconceptions and attitudinal barriers in psychiatric patients. Furthermore, multimedia and interactive educational strategies have demonstrated greater engagement and retention of information compared to traditional lecture-based methods (Kaplan et al., 2020; Mishra et al., 2018).

Despite this evidence, there is a gap in research exploring how knowledge gains directly influence attitude changes in psychiatric OPD settings in India. Understanding this correlation is essential for designing effective public awareness programmes, predicting behavioural outcomes, and tailoring interventions to populations with high tobacco use prevalence. This study addresses this gap by quantitatively assessing the correlation between



knowledge and attitude scores following a structured public awareness programme in psychiatric patients attending an OPD in Cuttack, Odisha.

### OBJECTIVES

1. To assess post-test knowledge regarding the ill effects of tobacco among psychiatric OPD patients.
2. To assess post-test attitudes toward tobacco use among psychiatric OPD patients.
3. To determine the correlation between post-test knowledge scores and attitude scores.

### METHODOLOGY

#### Research Design:

A quantitative pre-experimental, one-group pre-test post-test design was used.

#### Setting and Sample:

The study was conducted at the psychiatric OPD of a selected hospital in Cuttack, Odisha, with 150 participants who were current tobacco users.

#### Data Collection Tools:

- Structured Interview Schedule: Assessed knowledge about general information, ill effects, and prevention/treatment of tobacco use.
- Likert's Attitude Scale: 30-item questionnaire assessing attitudes toward tobacco use on a 5-point scale.

#### Procedure:

- Ethical approval obtained.
- Participants provided written and oral consent.
- Pre-test knowledge and attitude scores were collected.
- A structured public awareness programme was administered using interactive teaching and multimedia tools.
- Post-test scores collected for both knowledge and attitude.

#### Data Analysis:

- Descriptive statistics summarized demographic characteristics and score distributions.
- Paired t-tests assessed pre-post differences (already reported in previous manuscripts).
- Pearson's correlation coefficient (r) determined the relationship between post-test knowledge and attitude scores.

### RESULTS

**Table .1 Post-Test Knowledge Scores:**

Knowledge Domain	Adequate	Moderately Adequate	Inadequate
General information	51 (34%)	89 (59%)	10 (7%)
Ill effects	64 (43%)	67 (45%)	19 (12%)
Treatment & prevention	47 (31%)	67 (45%)	36 (24%)

**Table .2 Post-Test Attitude Scores:**

Attitude Category	Frequency (%)
Unfavourable	5 (3%)
Moderately favourable	40 (27%)
Favourable	105 (70%)

#### Statistical Analysis:

- Post-test mean knowledge score =  $19.19 \pm 3.34$
- Post-test mean attitude score =  $39.81 \pm 5.91$
- Pearson correlation (r) = 0.126,  $p < 0.05$

#### Interpretation:

The moderate positive correlation indicates that as knowledge regarding tobacco's ill effects increases, participants' attitudes toward cessation and avoidance become more favourable.

### DISCUSSION

The findings demonstrate a statistically significant relationship between knowledge and attitude following the public awareness programme. Although correlation was moderate, it underscores that knowledge enhancement can influence affective orientations toward tobacco use.



Previous studies support this relationship, suggesting that knowledge alone may not guarantee behavioural change, but when combined with favourable attitudes, it increases readiness for cessation (Prochaska et al., 2018; Sreeramareddy et al., 2019).

The moderate correlation may reflect that attitude is influenced not only by knowledge but also by personal, social, and environmental factors, particularly in psychiatric populations where stress, peer pressure, and cultural norms play a significant role.

These findings emphasize that public awareness programmes should target both knowledge and attitudes to optimize impact and support behavioural change.

## CONCLUSION

The study concludes that knowledge improvement and attitude change are positively correlated among psychiatric OPD patients after a structured public awareness programme. Integrating cognitive and affective components in educational interventions is critical for promoting informed decision-making and encouraging cessation behaviours.

## Implications

**Nursing Practice:** Nurses should deliver integrated programmes addressing both knowledge and attitudes, enhancing motivation for cessation.

**Nursing Education:** Training should focus on designing interventions that simultaneously target knowledge acquisition and attitude change.

**Nursing Administration:** Health administrators should incorporate combined knowledge-attitude programmes in psychiatric and general OPD settings to maximize impact.

**Research:** Future studies could explore predictors of stronger correlations and examine long-term effects on cessation behaviour.

## RECOMMENDATIONS

1. Conduct combined knowledge-attitude interventions to reinforce both domains.
2. Explore psychosocial factors moderating the knowledge-attitude relationship.
3. Replicate the study in different psychiatric and general hospital settings.
4. Assess the longitudinal impact of integrated interventions on actual tobacco cessation.

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