



A COMPARATIVE STUDY TO ASSESS THE CONTRIBUTING FACTORS OF ALCOHOLISM AND ITS IMPACT ON HEALTH AND FAMILY AMONG PEOPLE RESIDING IN SELECTED TRIBAL AND RURAL AREAS

Health Science (Nursing)

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ABSTRACT

Background Alcoholism is a major public health problem affecting physical health, mental well-being, and family functioning. Alcohol consumption is increasing among tribal and rural populations due to various social, psychological, and environmental factors. Limited comparative evidence is available regarding the contributing factors and health impact of alcoholism among tribal and rural communities in India.

Objectives

1. To identify the contributing factors of alcoholism among alcoholic individuals residing in tribal and rural areas.
2. To assess the impact of alcoholism on health and family life.
3. To determine the relationship between contributing factors of alcoholism and its impact on health and family among the study population.

Methods A comparative cross-sectional descriptive study was conducted among 100 alcoholic individuals residing in selected tribal and rural areas of Maharashtra. Participants were selected using purposive sampling technique. Data were collected using a structured sociodemographic questionnaire, contributing factors assessment scale, physical health assessment proforma, and interview questionnaire regarding family impact. Data were analyzed using descriptive and inferential statistics including frequency, percentage, mean, standard deviation, and correlation analysis. Results The findings revealed that easy availability of alcohol, unemployment, peer pressure, low self-esteem, and pleasure-seeking behavior were the major contributing factors for alcoholism among the study participants. In tribal areas, 92% reported easy availability and 80% reported unemployment as major contributing factors, whereas in rural areas 98% reported pleasure-seeking behavior and 94% reported easy availability of alcohol. Alcoholism showed a significant impact on physical health, particularly affecting neurological, gastrointestinal, and musculoskeletal systems. The mean physical health impairment score was higher among tribal participants (24.3 ± 5.1) compared to rural participants (21.66 ± 4.38). Positive correlation was observed between contributing factors of alcoholism and impact on health in both tribal ($r = 0.25$) and rural areas ($r = 0.54$). **Conclusion** Alcoholism has a substantial impact on the physical health and family life of individuals residing in tribal and rural communities. Easy availability of alcohol, psychosocial factors, and peer influence play a major role in alcohol consumption. Community-based awareness programs, early screening, counseling services, and de-addiction interventions are essential to reduce the burden of alcoholism in vulnerable populations.

KEYWORDS

Alcoholism; Tribal Population; Rural Population; Health Impact; Family Problems; Substance Abuse

INTRODUCTION

Alcohol consumption is a major global public health concern associated with significant physical, psychological, social, and economic consequences. According to the World Health Organization (WHO), harmful use of alcohol contributes substantially to the global burden of disease and is responsible for nearly 3 million deaths annually worldwide. Alcohol use is associated with various chronic diseases including liver disorders, cardiovascular diseases, neurological complications, mental health disorders, cancers, and accidental injuries. In addition to its health consequences, alcoholism adversely affects family functioning, interpersonal relationships, work productivity, and social stability.¹⁻³

In India, alcohol consumption has increased considerably over recent decades, particularly among socially and economically vulnerable populations. Rural and tribal communities are especially at higher risk because of poverty, unemployment, low literacy levels, psychosocial stressors, peer influence, cultural practices, and easy accessibility of locally available alcoholic beverages. Tribal populations often consume traditional homemade alcohol as part of social customs and cultural practices, whereas alcohol use in rural populations is frequently associated with occupational stress, social influence, and lifestyle-related factors.⁴⁻⁶

Alcoholism not only affects the individual but also imposes a substantial burden on families and communities. Excessive alcohol consumption is linked with domestic violence, marital conflicts, financial instability, neglect of family responsibilities, emotional disturbances, and reduced quality of life among family members. Chronic alcohol use also contributes to significant physical health impairment involving gastrointestinal, neurological, cardiovascular, and musculoskeletal systems. Previous studies have shown that alcohol dependence is strongly associated with psychological distress, low self-esteem, social isolation, and poor coping mechanisms.⁷⁻⁹

Several studies conducted in India have reported a high prevalence of alcohol use disorders among rural and tribal populations. Factors such as easy availability of alcohol, unemployment, family history of alcoholism, peer pressure, and low socioeconomic status have been

identified as important contributors to alcohol dependence. Furthermore, alcohol abuse has been associated with increased risk of chronic diseases, mental health disorders, accidental injuries, and family dysfunction.¹⁰⁻¹²

Despite the increasing burden of alcoholism in India, limited comparative research has been conducted to assess the contributing factors and health impact of alcoholism among tribal and rural populations. Most available studies focus either on prevalence or on individual health outcomes, while comparatively fewer studies evaluate the combined impact on health and family life among vulnerable community populations. Understanding the contributing factors associated with alcoholism and its multidimensional impact is essential for developing targeted preventive strategies, awareness programs, and community-based interventions.

Therefore, the present study was undertaken to assess the contributing factors of alcoholism and its impact on health and family among individuals residing in selected tribal and rural areas of Maharashtra.

OBJECTIVES

Primary Objectives

1. To identify the contributing factors associated with alcoholism among individuals residing in selected tribal and rural areas.
2. To assess the impact of alcoholism on physical health and family life among alcoholic individuals residing in selected tribal and rural areas.
3. To determine the relationship between contributing factors of alcoholism and its impact on health and family among the study population.

HYPOTHESIS

Null Hypothesis (H_0)

There is no significant relationship between contributing factors of alcoholism and its impact on health and family among individuals residing in tribal and rural areas.

Alternate Hypothesis (H_1)

There is a significant relationship between contributing factors of alcoholism and its impact on health and family among individuals residing in tribal and rural areas.

MATERIALS AND METHODS

Study Design and Setting

A comparative cross-sectional descriptive study was conducted among alcoholic individuals residing in selected tribal and rural areas of Maharashtra, India. The study was carried out in Bhandardara tribal area and Kolhar rural area with the objective of assessing the contributing factors of alcoholism and its impact on health and family life.

Study Population

The study population consisted of alcoholic individuals aged above 21 years residing in the selected tribal and rural communities during the period of data collection.

Inclusion Criteria

Participants who fulfilled the following criteria were included in the study:

1. Individuals aged more than 21 years.
2. Individuals consuming alcohol and residing in selected tribal and rural areas.
3. Individuals who were willing to participate in the study.
4. Individuals available during the period of data collection.

Exclusion Criteria

1. Individuals who were critically ill during the data collection period.
2. Individuals who were not willing to participate in the study.
3. Individuals with severe psychiatric illness or communication difficulties.

Sample Size and Sampling Technique

A total of 100 alcoholic individuals were included in the study, comprising participants from both tribal and rural areas. Participants were selected using a purposive sampling technique based on predefined inclusion criteria.

Data Collection Instruments

Data were collected using structured and semi-structured research instruments developed after extensive review of literature and expert consultation. The instruments consisted of the following sections:

Section I: Sociodemographic Questionnaire

This section included variables such as age, religion, educational status, marital status, occupation, type of family, monthly income, family history of alcoholism, alcohol consumption pattern, and source of information.

Section II: Contributing Factors Assessment Scale

A structured questionnaire was used to assess contributing factors associated with alcoholism including peer pressure, unemployment, easy availability of alcohol, low self-esteem, pleasure-seeking behavior, social influence, and psychological factors.

Section III: Physical Health Assessment Proforma

A systematic physical examination proforma was used to assess the impact of alcoholism on various body systems including neurological, gastrointestinal, musculoskeletal, skin, head and neck, and general health status.

Section IV: Family Impact Assessment

A semi-structured interview questionnaire was used to assess the impact of alcoholism on family life including interpersonal conflicts, financial burden, family disturbances, and social problems.

Validity and Reliability of the Tool

The content validity of the research instruments was established through expert evaluation by specialists in nursing and community health research. Necessary modifications were made according to expert suggestions. The tool was translated into Marathi language to improve participant understanding and feasibility of data collection. A pilot study was conducted prior to the main study to assess feasibility and applicability of the instruments.

Data Collection Procedure

Formal administrative permission and ethical approval were obtained from the Institutional Ethics Committee prior to data collection. Written informed consent was obtained from all participants after explaining the purpose and objectives of the study. Confidentiality and anonymity of participants were maintained throughout the study.

Data were collected through interview method and physical health assessment using the prepared research tools. Each participant was assessed individually in a private and comfortable environment.

Statistical Analysis

The collected data were coded and entered into Microsoft Excel and analyzed using descriptive and inferential statistical methods. Frequency, percentage, mean, and standard deviation were used to summarize demographic variables and study findings. Correlation analysis was used to determine the relationship between contributing factors of alcoholism and its impact on health and family among tribal and rural populations. Statistical significance was considered at $p < 0.05$.

Ethical Considerations

Ethical clearance for the study was obtained from the Institutional Ethics Committee of Pravara Institute of Medical Sciences, Loni, Maharashtra. Written informed consent was obtained from all study participants prior to data collection. Participants were assured regarding confidentiality, anonymity, and their right to withdraw from the study at any stage without any penalty.

RESULTS

Sociodemographic Characteristics of Study Participants

A total of 100 alcoholic individuals participated in the study from selected tribal and rural areas. In the tribal area, the highest proportion of participants (48%) belonged to the age group of 21–30 years, whereas in the rural area 32% of participants were in the same age group. Majority of the participants in tribal areas were Hindu (78%), illiterate (34%), currently married (92%), and employed as daily wage workers (62%). In contrast, participants from rural areas were predominantly Hindu and Buddhist (48%), educated up to higher secondary level (42%), currently married (86%), and employed in private occupations (46%).

Regarding family characteristics, 54% of participants in tribal areas belonged to joint families, whereas 52% of participants in rural areas belonged to nuclear families. Majority of participants from both tribal and rural areas had a monthly income of less than Rs. 3000. Family history of alcoholism was commonly reported among participants in both study settings.

Pattern of Alcohol Consumption

The findings revealed that 40% of participants from tribal areas and 42% from rural areas consumed less than 60 mL of alcohol per day. Alcohol consumption associated with smoking was reported among 70% of tribal participants and 50% of rural participants. Desi liquor was the most commonly consumed type of alcohol in both tribal (38%) and rural (54%) areas.

Majority of participants spent approximately Rs. 301–500 per month on alcohol consumption. Friends and relatives were the major source of information regarding alcohol use among tribal participants (48%), whereas television and radio were major sources among rural participants (50%).

Contributing Factors Associated with Alcoholism

The study identified multiple contributing factors associated with alcoholism among the study population. In tribal areas, easy availability of alcohol (92%), unemployment (80%), sense of inferiority (70%), low self-esteem (66%), and poor social support (62%) were identified as major contributing factors.

In rural areas, pleasure-seeking behavior (98%), easy availability of alcohol (94%), unmet needs (78%), peer influence (76%), and low self-esteem (66%) were reported as major contributing factors for alcohol consumption. Many participants reported more than one contributing factor leading to alcoholism. Family problems, peer pressure, and pleasure-seeking behavior were commonly reported etiological factors in both groups.

Impact of Alcoholism on Physical Health

Assessment of physical health status revealed that alcoholism had a mild to moderate impact on physical health among participants from both tribal and rural areas. The mean physical health impairment score among tribal participants was 24.3 ± 5.1 , whereas among rural participants it was 21.66 ± 4.38 .

The most commonly affected systems were neurological, gastrointestinal, and musculoskeletal systems. Participants commonly reported symptoms such as generalized weakness, body pain, gastrointestinal disturbances, dizziness, altered sleep pattern, and neurological complaints associated with prolonged alcohol consumption.

Relationship Between Contributing Factors and Health Impact

Correlation analysis demonstrated a positive relationship between contributing factors of alcoholism and impact on physical health in both tribal and rural populations. In tribal areas, a mild positive correlation was observed ($r = 0.25$), whereas a moderate positive correlation was found in rural areas ($r = 0.54$).

Regarding family impact, a negative correlation was observed between contributing factors and family impact in tribal areas ($r = -0.04$), while a positive correlation was observed in rural areas ($r = 0.25$).

DISCUSSION

The present comparative cross-sectional study was conducted to assess the contributing factors of alcoholism and its impact on health and family among individuals residing in selected tribal and rural areas of Maharashtra. The findings of the study revealed that alcoholism is influenced by multiple psychosocial, environmental, and behavioral factors and significantly affects both physical health and family functioning.

In the present study, the majority of participants belonged to the age group of 21–30 years in both tribal and rural areas. Similar findings have been reported in previous Indian community-based studies which identified young adults as the most vulnerable population for initiation and continuation of alcohol consumption. Young adulthood is often associated with increased peer influence, occupational stress, emotional instability, and social acceptance of alcohol use.^{12, 13}

The study identified easy availability of alcohol, unemployment, low self-esteem, and peer influence as major contributing factors associated with alcoholism. In tribal areas, easy availability of alcohol and unemployment were the predominant factors, whereas pleasure-seeking behavior and peer influence were more commonly observed among rural participants. These findings are consistent with earlier studies conducted among rural and tribal populations which reported that socioeconomic stress, cultural acceptance, peer pressure, and psychosocial instability significantly contribute to alcohol dependence.^{14–16}

The findings further revealed that desi liquor was the most commonly consumed type of alcohol among participants from both tribal and rural communities. The preference for locally available alcohol may be due to its low cost, easy accessibility, and sociocultural acceptance within community settings. Similar observations have been reported in studies conducted among tribal populations in India where locally brewed alcohol was frequently consumed during festivals, rituals, and social gatherings.^{17, 18}

Assessment of physical health status demonstrated that alcoholism had a mild to moderate impact on physical health among study participants. Neurological, gastrointestinal, and musculoskeletal systems were the most commonly affected body systems. Participants frequently reported generalized weakness, dizziness, body pain, gastrointestinal disturbances, sleep alterations, and neurological complaints associated with prolonged alcohol consumption. Similar findings have been reported in previous studies which demonstrated that chronic alcohol consumption contributes to neurological impairment, liver dysfunction, gastrointestinal disorders, cardiovascular complications, and reduced physical functioning.^{19–21}

The present study also identified considerable impact of alcoholism on family functioning and interpersonal relationships. Financial burden, family conflicts, emotional disturbances, and reduced social functioning were commonly observed among alcoholic individuals. Previous studies have similarly reported that alcohol dependence is associated with domestic violence, marital dissatisfaction, neglect of family responsibilities, psychosocial stress, and poor quality of life among family members.^{22–24}

Correlation analysis demonstrated a positive relationship between

contributing factors of alcoholism and impact on physical health among both tribal and rural populations. The correlation was relatively stronger in rural participants compared to tribal participants, indicating that psychosocial and environmental factors may significantly influence the severity of alcohol-related health consequences. Similar associations between psychosocial determinants and alcohol-related morbidity have been reported in previous epidemiological studies.^{25, 26} The findings of the present study highlight the urgent need for community-based awareness programs, behavioral interventions, counseling services, and de-addiction strategies in vulnerable tribal and rural populations. Early identification of alcohol-related problems and implementation of preventive public health measures may help reduce alcohol dependence and improve overall quality of life among affected individuals and their families.

Overall, the present study emphasizes alcoholism as a significant public health issue affecting both individual health and family well-being. Multidisciplinary interventions involving healthcare professionals, community leaders, mental health experts, and public health agencies are essential for effective prevention and management of alcoholism in tribal and rural communities.

STRENGTHS AND LIMITATIONS OF THE STUDY

Strengths of the Study

The present study has several important strengths. First, the study adopted a comparative approach to assess alcoholism among both tribal and rural populations, which provided a broader understanding of the contributing factors and impact of alcoholism in vulnerable community settings. Second, the study addressed not only the physical health consequences of alcoholism but also its impact on family functioning and social well-being, thereby providing a multidimensional assessment of alcohol-related problems.

The study was community-based and included direct interaction with alcoholic individuals, which enhanced the reliability of the collected information. In addition, the use of structured assessment tools and systematic physical health examination helped in obtaining comprehensive data regarding contributing factors and health impact of alcoholism. The study also highlights important public health concerns in underserved tribal and rural populations where limited research evidence is available.

Limitations of the Study

Despite its strengths, the present study has certain limitations. The study was conducted among a relatively small sample size of 100 participants, which may limit the generalizability of the findings to larger populations. The use of purposive sampling technique may also introduce selection bias.

As the study followed a cross-sectional design, causal relationships between contributing factors and alcoholism could not be established. The information regarding alcohol consumption and family impact was based primarily on self-reported responses, which may be affected by recall bias and underreporting due to social stigma associated with alcoholism.

Furthermore, the study was limited to selected tribal and rural areas of Maharashtra and therefore the findings may not be representative of all tribal and rural populations in India. Advanced statistical analyses and long-term follow-up assessments were also not included in the present study. These limitations should be considered while interpreting the findings of the study.

CONCLUSION

The present comparative cross-sectional study concluded that alcoholism is a significant public health problem among individuals residing in tribal and rural communities. The study identified easy availability of alcohol, unemployment, peer influence, low self-esteem, and pleasure-seeking behavior as major contributing factors associated with alcoholism.

Alcoholism was found to have a considerable impact on physical health, particularly affecting neurological, gastrointestinal, and musculoskeletal systems. In addition to health-related consequences, alcoholism adversely affected family functioning, interpersonal relationships, emotional well-being, and socioeconomic stability among affected individuals and their families.

The study also demonstrated a positive relationship between contributing factors of alcoholism and alcohol-related health impact among both tribal and rural populations. The findings emphasize the urgent need for community-based awareness programs, early screening, counseling services, psychosocial support, and de-addiction interventions in vulnerable populations. Overall, alcoholism remains an important community health concern requiring multidisciplinary preventive and rehabilitative strategies to reduce its burden on individuals, families, and society.

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