



Perception of general population about home care remedies used in management of oral pain – A Cross-Sectional Study

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ABSTRACT: This cross-sectional study explores the perception of the general population regarding home care remedies for oral pain management in both rural and urban settings. Drawing upon a sample of 150 individuals, the study employs a mixed-methods approach to investigate attitudes, preferences, and practices related to home care remedies for oral health issues. Findings reveal a significant acceptance of home care remedies among respondents, with a notable proportion endorsing their efficacy in managing oral pain. However, variations based on education levels and age groups suggest the need for tailored interventions to address demographic-specific preferences and barriers. While social networks, particularly family members, play a significant role in recommending home care remedies, respondents also exhibit a degree of autonomy in decision-making. The study underscores the complexity of factors influencing the utilization of home care remedies and highlights the importance of culturally sensitive approaches to oral health promotion. Ultimately, the findings contribute to the development of evidence-based interventions aimed at promoting optimal oral health outcomes and reducing disparities in access to quality dental care services.

Keywords: Public Health; Homecare Remedies; Oral Pain relief; Awareness; Health Seeking Behaviour

I. INTRODUCTION

Oral health is a critical aspect of overall well-being and a significant public health concern globally, impacting individuals' quality of life and healthcare systems' sustainability. In India, a country renowned for its cultural diversity and demographic complexity, oral health issues present formidable challenges, spanning both urban and rural areas. Recent epidemiological studies have revealed alarming prevalence rates, with dental caries affecting approximately 50-85% of the population and periodontal diseases impacting 60-90% of individuals, underscoring the pervasive nature of oral health disparities across the nation [1, 2].

The urban-rural gap in oral health outcomes in India is reflective of broader systemic inequities in access to healthcare services and socioeconomic determinants. While rural communities, characterized by geographical isolation, limited infrastructure, and socioeconomic deprivation, bear a disproportionate burden of dental diseases, urban areas also face significant challenges. Despite commendable strides in expanding the dental workforce nationwide, both urban and rural areas grapple with a severe shortage of dental professionals, leading to alarming dentist-to-population ratios, with as few as one dentist for every 100,000–250,000 residents in rural locales, well below the recommended thresholds for optimal oral healthcare provision [3].

The deficiencies in oral healthcare infrastructure are further compounded by historical neglect within primary healthcare settings. Primary Health Centers (PHCs), the cornerstone of healthcare delivery in both urban and rural areas, have traditionally overlooked dental services, relegating oral health to the margins of primary care. While efforts have been made to integrate dental services into select PHCs in certain states, coverage remains patchy, leaving large swathes of populations underserved and vulnerable to oral health disparities. Moreover, Community Health Centers (CHCs), serving as secondary healthcare hubs for both urban and rural communities, offer dental care services in only a fraction of facilities, perpetuating barriers to access and exacerbating disparities in oral healthcare utilization [4-6, 20].

Faced with these systemic challenges, individuals from low-income backgrounds often resort to alternative strategies to alleviate oral pain and discomfort, turning to self-care remedies and traditional practices for relief. Self-care assumes heightened significance in contexts characterized by limited access to professional healthcare services, empowering individuals to take charge of their health and well-being through preventive and therapeutic measures. Within the realm of oral health, self-care encompasses a diverse array of practices, encompassing oral hygiene routines, dietary modifications, and the utilization of home



remedies and over-the-counter (OTC) medications for symptomatic relief [7, 17-19].

While existing research has examined self-care behaviors for dental pain in various demographic groups and cultural contexts, there exists a notable gap in understanding the perceptions and practices of populations in India regarding home care remedies for oral pain relief, particularly among individuals of low socioeconomic status (SES) [8, 21].

The study will employ a cross-sectional research design, utilizing both quantitative and qualitative methods to gather comprehensive insights into the perceptions, preferences, and experiences of urban and rural residents regarding home care remedies for oral pain management. A stratified random sampling technique will be employed to ensure the representation of diverse socioeconomic backgrounds and geographical locations within the study area. Data collection will involve structured interviews, focus group discussions, and participant observation to capture a nuanced understanding of self-care practices and their determinants among urban and rural populations [10, 22, 23].

Furthermore, the study will explore contextual factors influencing the utilization of home care remedies for oral pain relief, including cultural beliefs, socioeconomic constraints, accessibility of healthcare services, and prior experiences with professional dental care. Findings from this research are expected to yield valuable insights into the challenges and opportunities associated with promoting oral health self-care among rural populations, informing the development of targeted interventions and policy recommendations aimed at enhancing oral health outcomes and reducing disparities in access to dental care services in rural and urban India.

II. LITERATURE REVIEW

Understanding the perceptions and practices related to home care remedies for oral pain management among rural populations is paramount for addressing oral health disparities and informing targeted interventions. Previous research has explored various aspects of self-care behaviours and alternative treatment modalities for dental pain relief, providing insights into the diverse strategies adopted by individuals, particularly those with limited access to professional dental services.

The author [11] conducted a study examining dental self-care behaviours among patients who seek professional help only for certain problems and regular dental attenders. They

reported that dental self-care behaviours encompass a spectrum of activities, including changes in diet, utilization of over-the-counter (OTC) pain relief medications, and the use of home remedies to alleviate toothache and bleeding gums. This underscores the significance of self-care as a means of managing oral health issues, particularly in contexts where access to professional dental care is limited.

Similarly, the author [12] employed a focus group design to explore the use of home care remedies for dental pain relief among low-income adults from diverse racial and ethnic backgrounds. The study identified a wide range of home care remedies utilized by participants, including herbal preparations, topical applications, and traditional remedies passed down through generations. These findings highlight the cultural diversity and variability in home care practices for oral pain management, underscoring the need for culturally sensitive approaches to oral healthcare provision.

In addition to self-care practices, the utilization of home care remedies for oral pain relief among rural populations is influenced by cultural beliefs and traditional healing practices. The author [13] examined the cultural factors shaping perceptions of oral health and treatment-seeking behaviours among rural communities in India. The study identified a preference for traditional healers and home remedies for managing oral health issues, reflecting deeply ingrained cultural beliefs and mistrust of modern healthcare systems. This underscores the importance of culturally tailored interventions that integrate traditional healing practices with evidence-based oral healthcare approaches.

Furthermore, socioeconomic factors play a significant role in shaping individuals' access to dental care services and their utilization of home care remedies for oral pain relief. The author [14] conducted a quantitative study investigating the socioeconomic determinants of oral healthcare utilization among rural populations in India. The findings revealed disparities in dental care utilization based on income, education, and occupation, with individuals from lower socioeconomic strata facing greater barriers to accessing professional dental services. Consequently, reliance on home care remedies emerges as a pragmatic coping strategy for managing oral pain in the absence of affordable and accessible dental care options.

Despite the prevalence of home care remedies for oral pain relief among rural populations, there is a dearth of empirical research examining the safety, efficacy, and cultural



appropriateness of these interventions. The author [15] conducted a systematic review of traditional and complementary medicine use for oral health conditions in India, highlighting the need for rigorous scientific evaluation of traditional remedies to inform evidence-based oral healthcare practices. Integrating traditional healing practices with modern dental care approaches holds promise for enhancing oral health outcomes and promoting culturally competent care delivery in underserved rural communities.

Furthermore, recent studies have emphasized the role of oral health literacy in influencing individuals' perceptions and practices related to home care remedies for oral pain management. The author [16] conducted a qualitative study examining the association between oral health literacy and self-care behaviours among rural residents in the United States. The findings underscored the importance of improving oral health literacy to empower individuals to make informed decisions about oral healthcare and effectively utilize home care remedies for oral pain relief.

In summary, the literature underscores the significance of understanding the perceptions and practices related to home care remedies for oral pain management among rural populations. Culturally sensitive interventions that integrate traditional healing practices with evidence-based oral healthcare approaches are needed to address oral health disparities and promote equitable access to quality dental care services in rural India.

III. METHODOLOGY

1.1 Study Design

A cross-sectional study was conducted among 150 individuals who were willing to participate. The study utilized a simple random sampling method to select participants, ensuring equal opportunity for inclusion.

1.2 Participant Recruitment

Participants meeting the inclusion criteria of being aged between 35-44 years or 65-74 years and having a medical history were eligible for inclusion in the study. Individuals with mental disabilities and those unwilling to participate were excluded. Prior permission was obtained from each participant after explaining the purpose and procedures of the study.

1.3 Data Collection Instrument

A bi-lingual questionnaire, consisting of 12 closed-ended items, was used to collect data from participants. The questionnaire was designed

to gather information about participants' knowledge of home care remedies and their perceptions regarding the management of oral pain. The questionnaire had been formulated based on a review of relevant literature and was administered in the local language to ensure comprehensibility.

1.4 Data Collection Process

Trained research assistants administered the questionnaire through face-to-face interviews with participants. The confidentiality of participants was ensured throughout the data collection process, with no personal identifying information being recorded on the questionnaire.

1.5 Data Analysis

The collected data were analyzed using statistical software packages, including SPSS 20 and MS Excel. Descriptive statistics were used to summarize participants' demographic characteristics, knowledge of home care remedies, and perceptions regarding oral pain management. Inferential statistics, such as chi-square tests and logistic regression, were employed to examine associations between variables of interest.

1.6 Ethical Considerations

Informed consent was obtained from all participants prior to their participation in the study, and measures were taken to ensure the confidentiality of their data.

1.7 Limitations

While efforts were made to ensure the representativeness of the study sample, the findings may not be generalizable to other populations with different demographic characteristics. Additionally, the reliance on self-reported data may have introduced recall bias and social desirability bias, potentially influencing the accuracy of responses.

IV. RESULTS AND DISCUSSION

A total of 150 respondents, comprising 64 (42.67%) males and 86 (57.37%) females, participated in the study. The distribution of respondents based on residence revealed that 25.3% belonged to rural areas, while 74.67% resided in urban areas.

The study aimed to assess the perceptions and practices of the general population regarding home care remedies for managing oral pain. Results indicated that a substantial proportion of respondents, both from rural (23.6%) and urban (24.1%) areas, considered home care remedies appropriate for oral health management. However, statistical analysis did not reveal a significant



difference between the two groups, with a p-value of 0.45.

Education level emerged as a significant factor influencing the perceived appropriateness of home care remedies. The study found that individuals with lower levels of education were more likely to find these remedies suitable for

managing oral health issues. Specifically, 27.27% of uneducated individuals, 22.22% of those with a 10th-grade education, 26.92% of those with a 12th-grade education, and 20.45% of graduates endorsed the use of home care remedies. Statistical analysis confirmed the significance of this association, with a p-value of 0.4 (Table 1 and Figure 1).

Table 1: Education of the Respondent

Education	n	Percent
Uneducated	44	29.33%
10th Pass	36	24.00%
12th Pass	26	17.33%
Graduate	44	29.33%

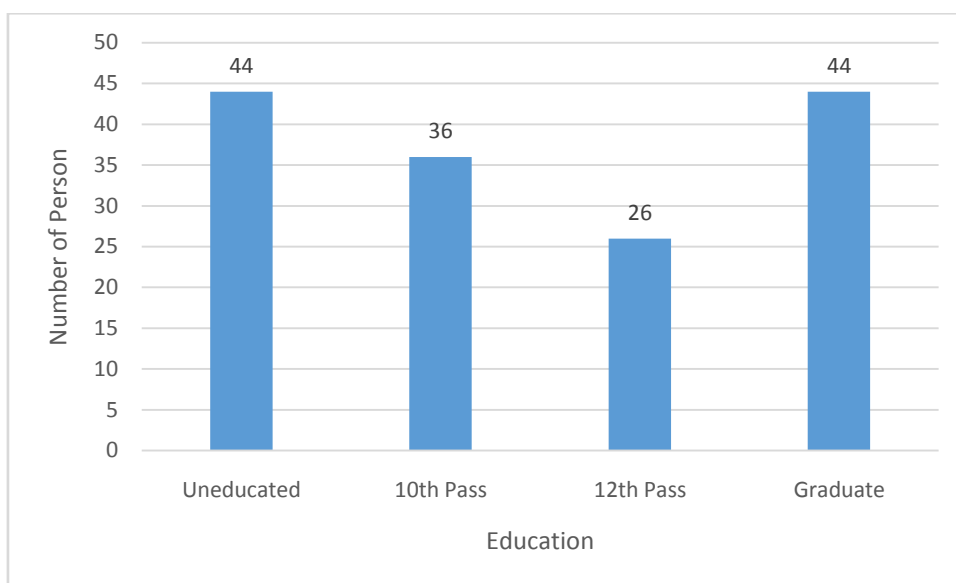


Figure 1: Education of the Respondent

Analysis by age group revealed interesting insights into perceptions regarding home care remedies. While 28.57% of young respondents found these remedies appropriate, the proportion was lower among adults (20.31%) and higher among senior citizens (41.67%). Although the

differences did not reach statistical significance (p-value = 0.53), the trend suggests potential age-related variations in attitudes towards home care remedies for oral health management (Table 2 and Figure 2).

Table 2: Age group of the respondent

Age Group	Type	n	Percent
18-30	Young	28	18.67%
31-45	Adult	64	42.67%
46 above	Senior Citizen	58	38.67%

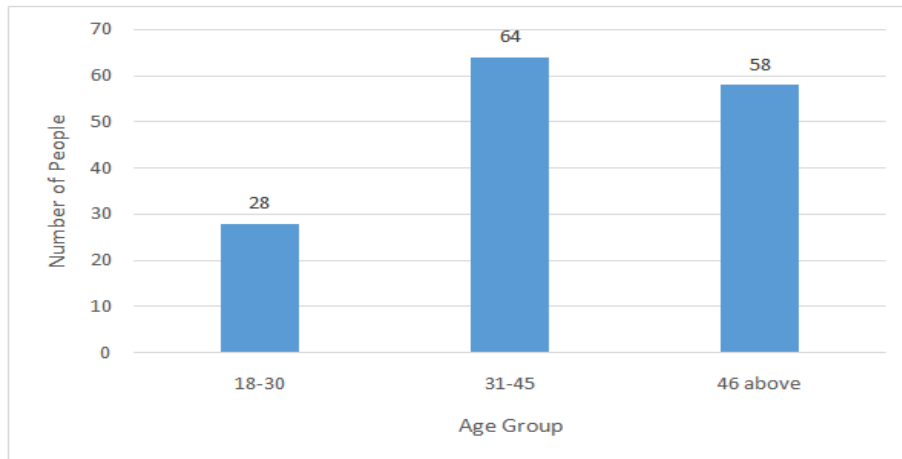


Figure 2: Age group of the respondent

When respondents were asked about the effectiveness of home care remedies in managing oral pain, a majority reported positive outcomes.

Specifically, 51.33% reported a decrease in pain following the use of home remedies, while 45.33% reported no change (Figure 3 and Table 3).

Table 3: Remedies adopted to manage pain

Remedies to Manage Pain	n	Percent
OTC Medication available at home	30	20.00%
Applied lime	1	0.67%
Placed tobacco	9	6.00%
Wrapped face	4	2.67%
Herbal remedies	33	0.22
Warm compresses	9	6.00%
Others	10	6.67%
No	54	54.00%

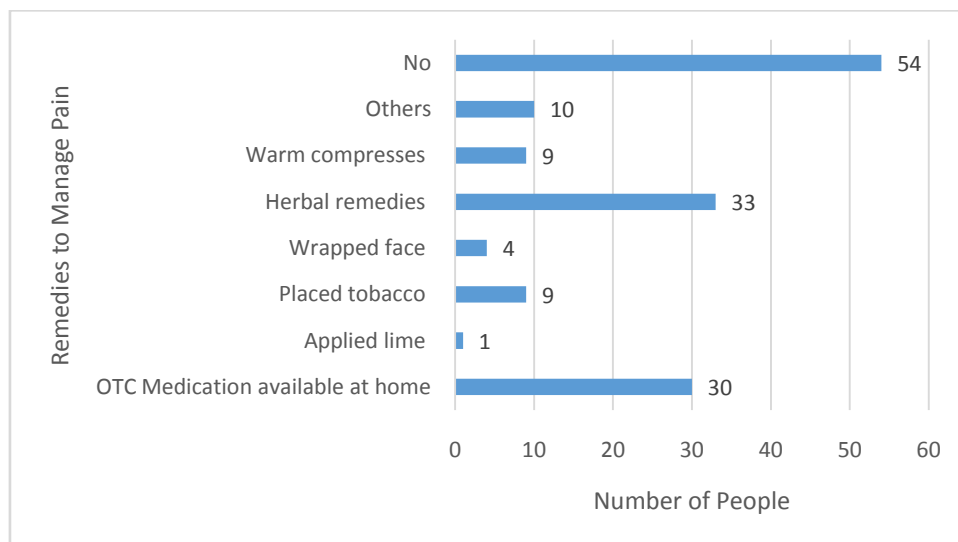


Figure 3: Remedies adopted to manage pain



Notably, a significant proportion (17.33%) expressed a preference for home care remedies over visiting a clinic for oral pain management, highlighting the perceived efficacy and convenience of these remedies.

Analysis of side effects associated with home care remedies revealed that the majority of respondents (72%) reported no adverse effects. However, 18% reported experiencing side effects, indicating the importance of considering potential risks and benefits when recommending these remedies.

When queried about the source of recommendation for home care remedies, respondents provided varied responses. Approximately 32% indicated that family members suggested these remedies, while 8% mentioned friends as the source of recommendation. Additionally, 5.33% reported neighbors as influencers, whereas a significant majority of 54.67% relied on their own judgment in deciding upon home care remedies (Figure 4 and Table 4)

Table 4: Suggestion given for homecare remedies

Suggested by	n	Percent
Family member	48	32.00%
Friend	12	8.00%
Neighbours	8	5.33%
By self	82	54.67%

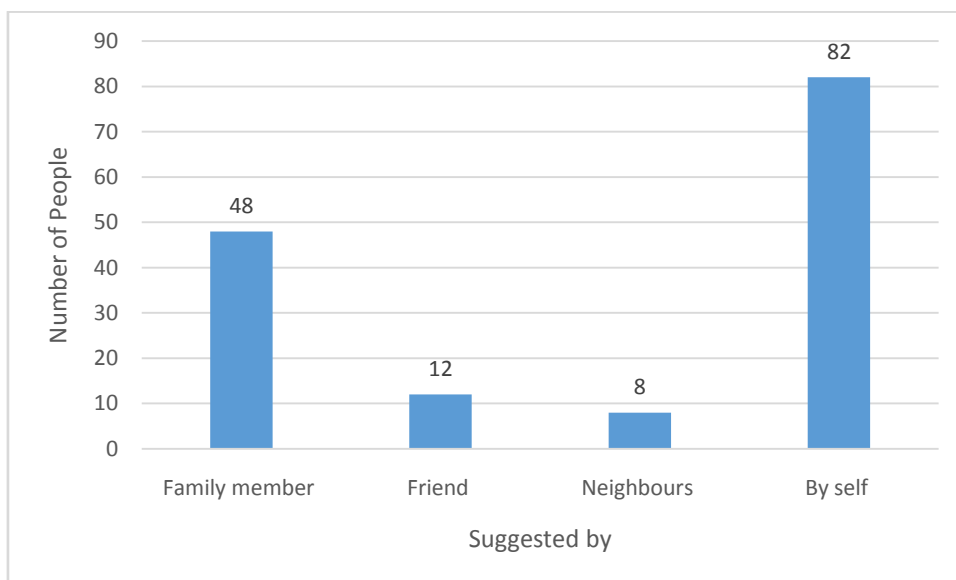


Figure 4: Suggestion given for homecare remedies

Respondents cited various reasons for choosing home care remedies over clinical treatment, including fear of dental clinics and environment (18.67%), cost considerations (13.33%), and a combination of both factors

(15.33%). A significant proportion (52.67%) cited other reasons, emphasizing the diverse motivations underlying the preference for home care remedies (Table 5 and Figure 5).

Table 5: Reason for Choosing Homecare Remedies

Reason for Choosing Homecare Remedies	n	Percent
Fear of dental clinic and environment	28	18.67%
Cost of treatment	20	13.33%
Both	23	15.33%
Other	79	52.67%

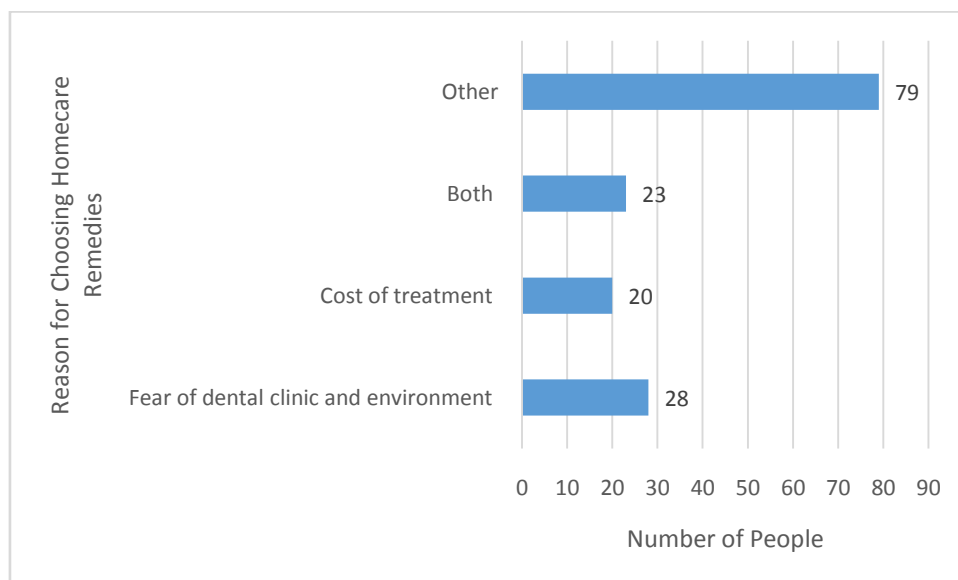


Figure 5: Reason for Choosing Homecare Remedies

Overall, 24% of respondents found home care remedies appropriate for managing oral pain, while 76% disagreed. These findings underscore the complexity of factors influencing perceptions and practices related to home care remedies for oral health management. Further research is warranted to explore the underlying determinants of these attitudes and develop targeted interventions to promote optimal oral health outcomes in diverse populations.

V. CONCLUSION

The study sheds light on the perceptions and practices of the general population regarding home care remedies for oral pain management. Findings reveal a significant acceptance of these remedies among both rural and urban residents, suggesting their perceived efficacy and convenience. However, variations based on education levels and age groups indicate the need for tailored interventions to address demographic-specific preferences and barriers. Notably, while a considerable proportion of respondents endorse home care remedies, a significant percentage express skepticism, underscoring the complexity of factors influencing their utilization.

Education emerges as a critical determinant of perceptions regarding home care remedies, with individuals with lower levels of education more likely to endorse their use. Similarly, age-related variations highlight the need for nuanced approaches to oral health promotion across different age groups. Despite positive outcomes reported by many respondents, concerns regarding safety and side effects underscore the

importance of informed decision-making and the need for further research on the efficacy and safety of home care remedies.

Moreover, the influence of social networks, particularly family members, in recommending home care remedies underscores the importance of community-based interventions and culturally sensitive approaches. However, the significant reliance on personal judgment suggests a degree of autonomy and self-reliance among respondents, necessitating interventions that empower individuals to make informed choices about their oral health. Additionally, diverse motivations underlying the preference for home care remedies, such as fear of dental clinics and cost considerations, highlight the multifaceted nature of barriers to accessing professional dental care.

In conclusion, the study contributes valuable insights into the complex landscape of oral health perceptions and practices among the general population. By elucidating the factors influencing the utilization of home care remedies, the findings inform evidence-based interventions aimed at promoting optimal oral health outcomes and reducing disparities in access to quality dental care services. Further research is warranted to explore the underlying determinants of these attitudes and develop targeted interventions tailored to the needs of specific population groups, ultimately advancing oral health equity in diverse communities.

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