



Assessment of Knowledge, Attitude and Practices among Pharmacists in Navi Mumbai Towards Oral Hygiene Products: A Cross-Sectional Survey

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DOI: 10.31080/ASDS.2024.08.1845

Received: May 03, 2024

Published: May 24, 2024

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Abstract

Aim: Pharmacists often fill the gaps in the oral health of the general population and the dental surgeon. It is important to identify the knowledge, attitude and practices as we have to consider them as a member of the oral health team. The aim of this study is to assess the knowledge, attitude and practices of Pharmacists in Navi Mumbai towards oral hygiene and oral healthcare products.

Materials and Methods: This study is composed of a cross sectional survey of 24 questions, conducted in Navi Mumbai among 280 pharmacists. It was a prevalidated, structured questionnaire with informed consent. Online forms were sent out to pharmacists and data was analysed for the conclusion.

Results: The age of the participating pharmacists ranged from 20 to 80 years, with 63 as the mode. 148 males and 132 females took part in the study. Majority (141) had an experience of 6-12 years. 108 out of 280 said that they get 2-5 consults for oral health per week and 88 claimed they get 11-20 consults per week. All 280 participants agreed that oral health care and promotion is a part of their job. 86 pharmacists perceived a difficulty in obtaining information about oral health. 173 participants agreed that a dentist-pharmacist collaboration would be beneficial to the general population.

Conclusion: The results clearly show that pharmacists from the participating pharmacies are interested in expanding their knowledge to gain confidence in providing the appropriate advice related to oral health conditions. Increasing their knowledge and dentist-pharmacist collaboration can have profound improvement in oral health practices of the general population.

Keywords: Pharmacists; Navi Mumbai; Oral Hygiene; Oral Health; Oral Hygiene Products; Survey; Cross Sectional Survey; Knowledge; Attitude; Practices

Introduction

Pharmacies usually have extended working hours, are commonly visited, and conveniently placed within the heart of community residents [1]. The pharmacists actually come into contact with more people with dental problems than the average dentist. Lack of time and difficulty in scheduling appointments with physicians or dentists are the main reasons people seek care from pharmacists. Currently, a range of products effective in treating several of the oral health ailments are available in the market. There are products for managing caries, calculus buildup, gingivitis, dentinal hypersensitivity, staining, and dental erosion, etc. Also, self-medication with over-the-counter drugs has been a typical practice due to easy access for decades. The role of pharmacists has evolved with time and is not restricted to dispensing medication to patients. Due to their knowledge and accessibility, they are frequently asked

for advice regarding dental care. The pathways in which a pharmacist takes part in oral healthcare include topical fluorides, fluoride toothpastes, the use of soft-bristle toothbrushes, and encouraging effective oral hygiene practice. They give parents and family caregivers information, motivation, confidence, and the skills to prevent oral disease. Community pharmacists are very important when it comes to prevention, identification, assessment, and referral. There are limited studies reporting community pharmacy involvement or participation in the provision of any prevention, early intervention and referral oral health services. Based on the outcome of studies done by Priya, *et al*, Aline Hajj, *et al*, [2,3]. it can be deduced that pharmacists must be included in the multidisciplinary approach towards oral health care. All over the world, just a few studies have been conducted to show the role of pharmacists in promoting dental healthcare. These were in countries like the UK, South Africa,

Saudi Arabia, New Zealand and India. In India, similar study was carried out in Chennai by Shanmuga Priya, PD Madan Kumar and S Ramachandran in 2008 [1] and by Patthi Basavaraj in Davangere [4,5]. "The burden of oral diseases in India is enormous", Dr OP Kharbanda, CDER, AIIMS. Existing studies have revealed the belief that dental and oral hygiene is being neglected and has turned into an unintended major social issue, since preventive oral health education is in transitional stage in India. Population-based oral health promotional programs are now being implemented and followed by multiple organisations on small and large scales. Oral disease is a considerable burden to the community with oral healthcare costs ranking as one of the most expensive disease groups in India [6]. For many people, pharmacists are the port of call when people have a toothache or mouth ulcers [7]. They have a more integrated role in the preventive services within the National Health Services to improve the delivery of primary health care. Hence, Oral health knowledge is considered to be an essential prerequisite for pharmacists. Identifying and addressing gaps in oral health knowledge, attitudes, and practices of pharmacists is of utmost importance before they can be considered as a member of oral health promotion team.⁸ There is a paucity of evidence about the role of community pharmacists in the oral healthcare-seeking attitude of the Indian population. Hence, it will be useful to compare oral health advice seeking behaviours of community pharmacies in various communities to ensure promotion of correct knowledge. To the best of our knowledge, no similar study has been conducted in the region of Navi Mumbai. This study aims to assess the above mentioned aspects and aspires to bring a change in the knowledge of pharmacists and attitude of the general public.

Materials and Methods

A survey based cross sectional study was conducted amongst 280 pharmacists of Navi Mumbai, Maharashtra. All local pharmacies having contact with members of the general population were eligible to participate in the study. These included any hospital attached pharmacies, retail stores, independent pharmacies and pharmacy chains. Sample was selected through simple random sampling. The data on knowledge, attitude and practices related to oral health and oral hygiene products was collected through a pre-validated structured questionnaire [2] using KAP survey at their pharmacy personally. The nature of the study was explained to every individual in his/her language. Required consent was obtained from the participants before the survey. The questionnaire was constructed to specifically address the role of pharmacists in oral health promotion. The questionnaire included 24 multiple choice and open ended questions. It was divided into 3 sections collecting information on (1) the demographic characteristics of the pharma-

cists; (2) the perception and attitude of pharmacists in oral health promotion (measured on five point scale from strongly agree to strongly disagree); (3) the confidence level of the pharmacists when delivering advice on oral health problems (also measured on five point scale from strongly agree to strongly disagree). The data collected was then entered electronically and analysed for descriptive statistics. After the collection of data at baseline, the investigators even provided oral health educative booklets for pharmacists. The structure of oral health education booklet was designed to include all the items of the KAP questionnaire.

Results and Discussion

The age of the participating pharmacists ranged from 20 to 80 years, with 63 as the mode. 148 males and 132 females took part in the study. The level of education was MPharm for 102 individuals, BPharm for 94, and DPharm for 84 of them. Majority (141) had an experience of 6-12 years. 144 were the owners of the pharmacy and 134 were staff pharmacists. 143 of them knew a nearby dental clinic as well. 141 claimed that their knowledge about oral care comes from the internet.

278 out of 280 said that they were aware of the beneficial effects of fluoride. 92 were very confident to give advice about teething. Only 103 were very confident about bad breath. Most of them chose 'neutral' when asked about loose crowns, lost dental fillings, tobacco problems, discoloured and trauma to teeth and 'fairly confident' when asked about bleeding gums, gum disease, dry mouth, sensitive teeth, and denture related problems. A lot of them also marked 'fairly unconfident' when asked about oral cancer and oral ulcers.

108 out of 280 said that they get 2-5 consults for oral health per week and 88 claimed they get 11-20 consults per week. 80 said that maximum consults were from adults and 120 said that maximum consults were for children and adolescents. Analysis also says that majority of the complaints that pharmacists deal with are toothache, toothbrush, toothpaste, bleeding gums and denture related problems. Also, 60 of them said that tooth whitening is a common concern of the patients coming to the pharmacy.

Brands bought the most were Oral-B, Colgate and Close-up. This shows that indigenous brands with low fluoride content are sold less, which shows that not only pharmacists but also the general population is aware of the beneficial effects of fluoride. 120 out of 280 pharmacists dispensed painkillers and/or antibiotics to patients with toothache, but only 5 of them actually recommended a dental consult.

About 144 of 280 advise the population about toothpaste, toothbrush, mouth wash and tongue cleaner more than 10 times per week. 151 said that they are asked about denture related problems, alcohol consumption, smoking cessation less than once per month. 109 said that they give advice about gum care about 10 times per week.

All 280 participants agreed that oral health care and promotion is a part of their job. 86 pharmacists perceived a difficulty in obtaining information about oral health. 185 out of 280 were willing to pursue a more pro-active role in oral health promotion. 173 participants agreed that a dentist-pharmacist collaboration would be beneficial to the general population. 152 were also willing to receive further training about oral healthcare. Majority of them even felt that these training programs must cover directions for use of oral health products, smoking cessation, prevention of decay, gum care and oral cancer. 180 also agreed that an additional module for oral health must be included in the pharmacy curriculum. 190 out of 280 felt that lack of educational promotion material for consumers, lack of information to give, and limited interaction between dentists and pharmacists are the biggest barriers in oral health promotion by pharmacists.

Pharmacists are substituting the actual prescription products with other products which are similar. So, they are keen to understand the composition and reason for prescription. With a large amount of substituted prescriptions, it is important that pharmacists get a good knowledge of composition of various routinely prescribed products of oral hygiene which is going to be beneficial to all patients in Navi Mumbai. Most of the practicing pharmacists have a long experience but are unable to produce confidence in knowledge about oral healthcare.

Oral cancer is the second most common cancer in India, but pharmacists, like the general population, do not have adequate knowledge about its identification and treatment, unfortunately.

Another thing we noticed was that indigenous brands of toothpastes are being used in significant numbers but people do not understand the importance of fluoride, and pharmacists promote fluoridated toothpastes. Although denture related problems are very common, most experienced pharmacists also weren't confident about giving advice about it.

Additionally, when asked about teeth whitening, they do not refer them to dentists but substitute new abrasive products, which can

be harmful but people are led to believe they will help. We feel that pharmacists and dentists should work with a multidisciplinary approach to improve the oral health awareness in the country, such that people see the wide spectrum of basic oral care, beyond just teeth whitening.

The most striking feature of this survey was that every pharmacist was ready to learn and keen to advise people for the health and well-being of the entire community. After years of experience, they wanted to attend courses and add modules to the curriculum and we feel that it speaks for their humility [8-19].

Conclusion

The results from this study suggest that pharmacists identify their role in the promotion of oral health. Moreover, pharmacists may also be a source that can be efficiently utilised by virtue of their frequent contact with members of public. The results clearly show that pharmacists from the participating pharmacies are interested in expanding their knowledge to gain confidence in providing the appropriate advice related to oral health conditions.

Recommendations

- The addition of modules specifically related to oral health advice in the undergraduate pharmacy curriculum
- Organising more continued education courses in oral health training for pharmacists
- Setting up multidisciplinary meetings with other healthcare professionals to facilitate the smooth running of local services within the community
- National campaigns for raising awareness about over the counter oral healthcare Products carried out by pharmacists

Conflict of Interest

None.

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