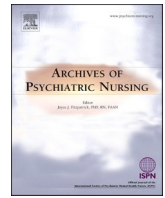


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Perspectives of smokers, smokeless tobacco users and cessation practitioners in India: A qualitative study

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Introduction

Tobacco use is associated with high mortality, and a range of morbidities including cancer, and lung/cardiovascular diseases (Reitsma et al., 2017). Tobacco users who die prematurely deprive their families of income, raise the cost of health care and hinder economic development (World Health Organisation, 2020). India is the second largest consumer [43 % males, 14 % females; 266.8 million adults] and third largest producer of tobacco in the world; and has one of the highest mortality related to tobacco [~1.3 million of 6 million annual deaths globally] (Tata Institute of Social Sciences and Ministry of Health and Family Welfare Government of India, 2017). Approximately 20 % of these deaths are attributed to smokeless tobacco (SLT) use (Tata Institute of Social Sciences and Ministry of Health and Family Welfare Government of India, 2017). India accounts for 70 % of the world's deaths due to SLT use (Siddiqi et al., 2020); primarily through oral cancers (Sinha et al., 2014). SLT is used by 21.4 % of the population as compared to 10.7 % that smokes tobacco (Tata Institute of Social Sciences and Ministry of Health and Family Welfare Government of India, 2017). Finally, 40 % of the worldwide total economic cost due to tobacco use occurs in low- and middle-income countries, with 25 % accounted for by Brazil, Russia, India and China alone (Goodchild et al., 2018).

The treatment gap for tobacco use in India and other low and middle income populations is as high as 92 % (Gururaj et al., 2016). While the reason for this is the lack of trained professionals to deliver effective, evidence-based cessation treatments, there have been attempts to bridge this gap using technologically delivered tobacco cessation interventions

which look promising (Gopinathan et al., 2018). However, most tobacco cessation interventions are developed based on the experience of smokers as opposed to SLT users, and only 3 % of the World Health Organization Framework Convention on Tobacco Control (WHO-FCTC) members have published literature on SLT use in their countries (Mehrotra et al., 2018). Secondly, population-level mobile phone delivered cessation interventions tend to have limited personalization based on type of tobacco used and all users receive the same intervention irrespective of type of tobacco consumed (World Health Organisation, 2015). This has implications on the effectiveness and acceptability of interventions since people are more likely to be satisfied with and adhere to treatment when it concurs with their perspectives (Callan & Littlewood, 1998). However, few studies have explored the perspectives of tobacco users, particularly smokeless users, in India (Ghose et al., 2019; Murthy et al., 2018).

A similar study by one of the authors (PM) found that there was inadequate knowledge of harm from SLT use, both among SLT users and health care providers and high positive expectancies from SLT use and low risk perception (Murthy et al., 2018). Our study will help to reduce this gap by providing additional information about the perspectives of SLT users and their convergence and divergence with smokers' perspectives. This information can be used to tailor tobacco cessation interventions to the types of tobacco used.

The objectives of this paper are to describe the perspectives of tobacco users (smoked and SLT users) and cessation practitioners on reasons for initiating and continuing tobacco use and motives to quit. Of particular interest are the differences between smoked and SLT users, considering that the distribution, determinants and health risks of SLT

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differ from that of smoking and so are likely to have specific implications for cessation treatments (Siddiqi et al., 2020).

Materials and methods

Study design, setting and sample

Qualitative study with in-depth interviews, conducted in Goa, India. Goa has a 9.7 % prevalence of current tobacco use (2.6 % women, 18.2 % men) (Tata Institute of Social Sciences and Ministry of Health and Family Welfare Government of India, 2017). The population of Goa is just over 1.4 million people, with relatively higher literacy rates compared to the Indian average (Goa, n.d.).

Adult (≥ 18 years) tobacco users were recruited through purposive sampling from the Tobacco Cessation Centre (TCC) at the Department of Public Health Dentistry, a tertiary care dental college and hospital, primary health centers (PHCs) and through health screening camps at workplaces in Goa. This sampling strategy allowed variance in terms of socio-economic determinants and help-seeking for tobacco use because those approached in workplaces and PHCs were not seeking treatment for tobacco cessation. Tobacco use was defined as current consumption of tobacco in any form, quantity, or frequency. Tobacco cessation practitioners were purposively selected from TCCs across India. Practitioners were defined as healthcare staff trained and engaged in the task of delivering tobacco cessation interventions. We aimed to achieve maximum variation sampling by selecting tobacco users of differing age, qualification, marital status and type of tobacco used, and practitioners with a wide distribution across age, years in practice and training background.

Data collection

Data were collected between 5th April to 14th July 2019 through individual in-depth semi-structured interviews by female researchers JD (MA) and MGP (MA) who received qualitative training for 15 h from the project coordinator who holds a master's degree in psychology with experience of qualitative research. The training included role-play practice with the interview guides. The training was overseen by the PI (AN) who has extensive experience of conducting qualitative research. The interviews with tobacco users were conducted face-to-face at the above locations, while interviews with practitioners were conducted face-to-face or telephonically. Users attending TCCs were referred to researchers by the dentists and at PHCs patients were approached for screening while they waited for their turn at the Outpatient Department (OPD). Participants at workplaces were screened after organizational-level awareness sessions on 'Mental Wellbeing' conducted by the research team. Average duration of an interview was 60 min. Only an interviewer and participant were present during the interview which was conducted in a private room beside the OPD. The following data was collected from consenting individuals: socio-demographic details (e.g. age), and the tobacco use module from the Alcohol, Smoking and Substance Involvement Screening Test [ASSIST v3.1] (Heslop et al., 2013).

Interviews were either conducted in English or a vernacular language. All interviews were audio-recorded on a digital audio-recorder with participants' consent and supplemented by field notes. Data collection was stopped upon reaching data saturation. Data saturation was decided based on the interview summaries which ceased to generate new information and any further data collection would not have produced additional insights. The interview guide for tobacco users was designed and routinely revised to elicit information about patterns of tobacco use, reasons for initiation and sustained tobacco use, impact of tobacco use on various aspects of their lives, motivators, and methods to quit and outcomes of those methods. Practitioners were asked about their patients' patterns of tobacco use, their intervention techniques and the factors affecting treatment uptake. Responses to questions were

followed up with relevant prompts to elicit detailed information. Participants were not engaged in post-interview research procedures.

Analysis

Vernacular interviews were translated into English. All interviews were transcribed and analyzed using Nvivo version 11. The user and practitioner interviews were treated as a single dataset and coded by two coders (JD, MGP) using the thematic analysis approach (Boyatzis, 1998) wherein broad themes were identified based on the study objectives and the raw data was then analyzed to find codes that were relevant to each of those themes. Two coders read through three user and two practitioner transcripts. They created separate codebooks after independently identifying codes in these initial transcripts. They then met to check for interrater reliability and discuss discrepancies. These separate codebooks were then merged to form a common codebook for both user and practitioner interviews, and this was used to code rest of the data. Discrepancies in coding were collaboratively discussed within team and consensus reached. Fig. 1 illustrates the various steps in the analysis process.

Ethics

This study was approved by the Institutional Review Boards of the host institution (AN_2018_36), the state Dental College and Hospital (recruitment site) and the Indian Council for Medical Research (2018-0161). Written informed consent was obtained from all consenting participants. For one participant who was not literate, the researcher read out the information sheet which explained the risks and benefits of participating in addition to the details of the study; the participant was provided with time to raise questions and then each item on the consent

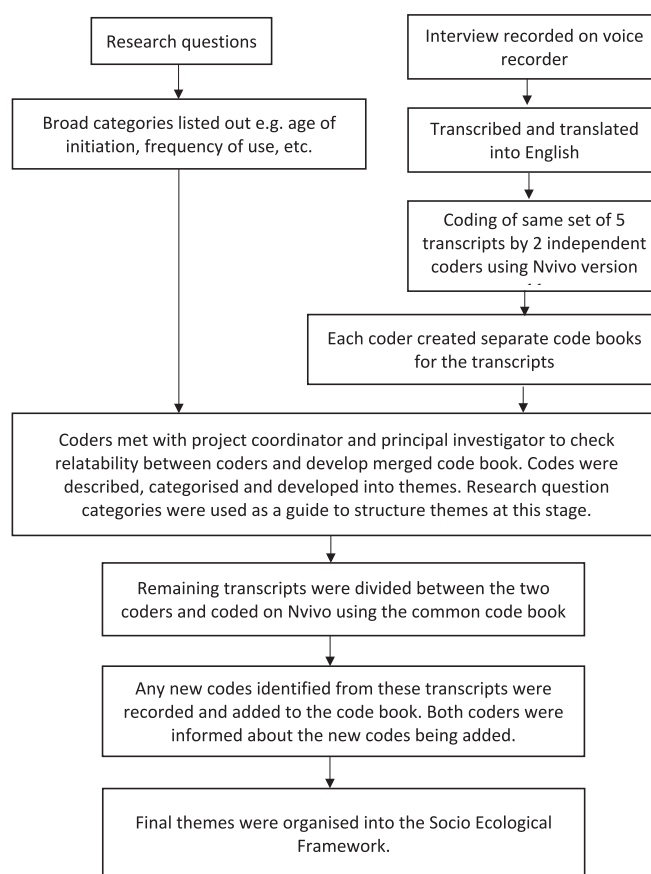


Fig. 1. Schematic representation of the inductive-deductive method used to generate themes from codes.

form was read out to him. His thumb impression was sought as alternative to a written signature. Tobacco-users approached were offered an information leaflet about the harmful effects of tobacco and a brief intervention based on the WHO’s 5As and 5R (World Health Organization (WHO), 2014) delivered by trained researchers irrespective of their willingness to participate in the study. Those consenting to participate were offered the booklet after the interview was completed. To ensure confidentiality all qualitative and quantitative data were saved under unique alphanumeric codes generated by the data manager. All participant identifiers were redacted from the interview transcripts. All data was saved on secure servers and protected by passwords which only the data manager had access to.

Results

Out of the 230 people we approached for screening, 62 had ever used tobacco and 30 of these had current tobacco use. Qualitative interviews were conducted with 23 of these who consented to the study [22 males and 1 female, 7 smoked tobacco, 13 used SLT, 3 used both types] and 13 practitioners [4 males and 9 females]. The mean age of the users was 39.5 years [range 23–65 years]. The majority were married and had secondary level education. The average age and years of clinical practice of the practitioners was 38.8 and 20.4 years respectively with areas of specialization ranging from periodontics, psychiatry, psychology, oncology, surgery, and pharmacy. See Tables 1.1 and 1.2 for more details.

As shown in Table 2, the findings have been organized using a Socio-Ecological Framework (SEF) (Schneider & Stokols, 2009) postulating that human behavior is influenced by multiple factors at individual, interpersonal, organizational, social/community and policy levels.

Individual factors

There were significant overlaps between tobacco user and practitioner perspectives with respect to individual factors that influence tobacco use. These include initiating tobacco use as a coping method or

Table 1.1
Tobacco user characteristics.

Demographic characteristics	Tobacco users (N = 23) n (%)
Gender	
Male	22 (95.7 %)
Female	1 (4.3 %)
Type of tobacco consumed	
Smoked	7 (30.4 %)
Smokeless	13 (56.6 %)
Both	3 (13.0 %)
Age (in years)	
23–30	8 (34.7 %)
31–40	5 (21.7 %)
41–50	4 (17.3 %)
51–60	4 (17.3 %)
61–65	2 (8.6 %)
Marital status	
Single	5 (21.7 %)
Married	18 (78.3 %)
Highest educational level	
No formal schooling	1 (4.3 %)
Primary	6 (26.1 %)
Secondary	11 (47.8 %)
Higher secondary	1 (4.3 %)
Graduate	2 (8.7 %)
Post graduate	2 (8.7 %)
Employment status	
Employed full time	16 (69.6 %)
Employed part time	1 (4.3 %)
Unemployed	4 (17.4 %)
Retired	1 (4.3 %)
Employed on daily wage-basis	1 (4.3 %)

Table 1.2
Tobacco cessation practitioner characteristics.

Demographic characteristics	Tobacco users (N = 13) n (%)
Gender	
Male	4 (30.8 %)
Female	9 (69.2 %)
Age (in years)	
26–35	7 (53.8 %)
36–45	2 (15.4 %)
46–55	2 (15.4 %)
56–65	2 (15.4 %)
Highest educational level	
MA Psychology	1 (7.7 %)
MD Psychiatry	2 (15.4 %)
MD Periodontics surgery	7 (53.8 %)
MS Surgery	1 (7.7 %)
M Pharm	1 (7.7 %)
PhD	1 (7.7 %)
Current designation/role	
Assistant Professor	1 (7.7 %)
Associate Professor	1 (7.7 %)
Chief of Clinical services	1 (7.7 %)
Lecturer, Public Health Dentistry	5 (38.5 %)
Proprietor of Pharmacy	1 (7.7 %)
Professor and Head of the Department	1 (7.7 %)
Psychologist	1 (7.7 %)
Senior Psychiatrist	1 (7.7 %)
Senior Resident	1 (7.7 %)
Years in practice	
0–5	6 (46.1 %)
6–10	2 (15.4 %)
11–15	1 (7.7 %)
16–20	2 (15.4 %)
20 +	2 (15.4 %)

Table 2
Summary of findings.

Socio ecological model constructs	Research questions		
	Reasons for initiation	Reasons for continued use	Motivators to quit
Individual	Coping (SLT, S, P) ^a Curiosity (SLT, S, P) Asserting adolescent autonomy (P)	Coping with physical pain (SLT, P) Coping with stress (S, P) Urge (SLT, S, P) Habit formation (SLT, S, P)	Intrinsic motivation (SLT, S, P) Negative health effects (SLT, P) Negative financial effects (S, P)
Interpersonal	Peer influence (SLT, S, P) Family influence (SLT, P)	Triggered when others use (SLT, S, P)	Negative effects on family (SLT, S, P) Pressure from family (SLT, S, P)
Organizational/ occupational	To stay awake at work (SLT, S) To fight hunger pangs at work (SLT, P) “Smoker’s break” (S)	Easy access at certain jobs (SLT, S, P)	Quit advice by physician (SLT, S, P)
Societal/ community	Cultural traditions (SLT, P) Media influence (P)	Favourable perceptions towards SLT (P)	Stigma (SLT, S, P) Religious influencers (P)
Policy		SLT very cheap and easily available (P)	Cigarettes – expensive (S,P)

^a The text in the brackets indicate the source of information: SLT- smokeless tobacco user, S – smoker, P – cessation practitioner.

out of curiosity; continuing tobacco use due to psychological and/or physiological dependence; and perceived negative impacts of tobacco influencing quit attempts.

Reasons for initiation

Both users and practitioners reported that people begin using tobacco: 1) to cope with psychological stress or physical pain and 2) out of curiosity – “to experience what it feels like.” In addition, practitioners reported adolescents smoking to assert autonomy from their parents and called it adolescent “rebellion”. While both groups of users reported using tobacco to cope, smokers used it to cope with psychological stress and smokeless users to cope with tooth ache or hunger pangs, particularly among daily wage laborers. The latter typically involved people who were unaware of the negative consequences of tobacco.

Somebody told them, ‘Have some tobacco for your toothache’ ...– they are advised to put tobacco on their tooth when it aches and that’s the reason they have started and now it has become an addiction. [F, 31, dentist].¹*

Reasons for continuation

Individual factors for continued tobacco use include physical, physiological and/or psychological dependence on tobacco. SLT users reported constipation, tooth sensitivity, saliva collecting in their mouth and headaches when they stop using tobacco while smokers only reported constipation. Practitioners also said that people continue to use SLT because they are habituated to the physical action of chewing tobacco.

Users described three psychological reasons for continued use, namely: 1) habit formation through repeated association of tobacco use with other activities; 2) to reduce the negative emotions associated with quitting [“irritability, restlessness, stress, boredom”]; and 3) to gain positive effects like improving motivation, creativity, and sleep. Smokers reported these psychological reasons while SLT users reported the physical ones.

In addition to the above, practitioners specified “craving” as the most important factor associated with continued use. The interplay of physical and psychological negative consequences was also seen as a reason for continued use:

They get very hungry when they quit and they gain weight and then again that is depressing for them because they are putting on a lot of weight. [F, 28, dentist].

Motivators to quit

The most frequently reported individual-level motivator to quit tobacco was the negative health effects experienced or anticipated. SLT users described a range of problems caused by tobacco use, such as, oral “wound”, “deep hole in cheek”, “mouth ulcer”, tooth decay, foul breath, and stained teeth. Smokers only mentioned shortness of breath as a negative health effect. The risk of developing cardiovascular disorders or cancer was reported as a strong motivator to quit. Practitioners described leveraging this motivator to help tobacco-users to quit, especially when the person is unaware of the health impacts of tobacco but suggested it might work better with SLT users than with smokers since overtly visible negative health effects appear sooner among them.

The health aspect is especially very helpful. Because the minute they have a lesion in their mouth, any precancerous lesion, they will listen to you. They will stop.

[F, 31, dentist].

While acknowledging negative health effects as a powerful motivator to quit, practitioners opined that “intrinsic motivation” was more

important and beyond their control. Some users shared this view and referred to it as “confidence”, possibly akin to the Motivational Interviewing idea of confidence to change or the self-efficacy type of confidence.

To stop you do not need the support of anyone. You should take the support of yourself. If there is confidence in you, only then you can stop. [M, 26]

Some users quit in anticipation of positive effects that would follow quitting, namely, a boost to their “self-confidence” and financial savings. Practitioners reported that this is a particularly useful motivator with users whose jobs emphasize a certain physical appearance like the hospitality sector.

Interpersonal factors

Both users and practitioners described interpersonal factors, such as, peer and family interactions that influence tobacco use.

Reasons for initiation and continuation

Users recalled being encouraged by peers to consume tobacco for various benefits, such as, to stay alert, keep warm, get accepted into a group or increase enjoyment. Coercion for some and a simple nudge for others initiated and perpetuated tobacco use.

Practitioners highlighted the family’s role in initiation and continuation of tobacco use. This happens either when parents ask children to purchase tobacco for them or when consumption of tobacco is a routine family activity. One practitioner described this as modelling behavior:

They see older women, there are aunts who are using, grandmothers who are using, that’s very often the role model for a lot of women, particularly who are working in the domestic daily wage group.

[F, 58, Psychiatrist].

Motivators to quit

Families influence motivation to quit either by directly putting pressure on the user to quit or when the user becomes concerned about the negative effects of their tobacco use on their family. These effects range from second-hand smoke to shame and embarrassment associated with tobacco use.

My wife says, ‘You put tobacco in your mouth in front of people on the road. We feel ashamed. The children also [feel ashamed].’ Then I tried many times to leave it [tobacco use]”

[M, 42].

Another user reiterated the role of this negative perception as a motivator to quit:

If I m chewing, looking at me someone is saying, ‘this is a dirty man’ - so it pierces my heart that - when someone says that this is wrong...so sometimes it comes to me that it’s better if I quit.

[M, 62].

A practitioner explained the salience of this motivator for Indian populations:

The Indian population is more... you can say family oriented - they think about their family; they worry about their family. So, when you address the issues related to their family or their children then they get more emotional or they take some solid initiatives

[F, 43, psychiatrist].

Users reported attempting to quit when their families pressured them via repeated “nagging”, “arguments”, or “supportive words”. Practitioners resonated this view.

¹ * Sex / age; and if P, profession.

Organizational factors

Users and practitioners mentioned organizational factors like workplace norms, perceived benefits on performance, ease of access and tobacco attitudes being important influencers of tobacco use.

Reasons for initiation

A common occupational reason for tobacco initiation was to stay awake for long hours, reported particularly by taxi drivers, factory workers and watchmen.

I said I will also try and see if I feel sleepy or not. After chewing, I really did not feel sleepy. Could go on [drive] for a little longer... As long as it is in the mouth; you don't feel sleepy.

[M, 27].

Practitioners associated tobacco initiation with jobs that provided easy access to tobacco, such as casinos for smoked tobacco use and construction work for SLT use.

Reasons for continuation

Occupational factors were found to sustain tobacco use. Daily wage laborers use it to cope with hunger pangs while working and drivers to stay awake.

While practitioners recognized these occupational factors, they viewed them as people's justification of tobacco use:

Then everybody finds reasons... that I have to work hard, I want to have some relaxation, so I want to do [use tobacco]. They say...night duties, day duties, drivers... to keep them awake.

[M, 59, Oncologist].

Motivators to quit

Healthcare system-related factors were found to influence tobacco cessation. Users reported that direct advice from a physician to quit, especially if it was tied to their symptoms, prompted quit attempts. While practitioners echoed the need for persistent practitioner advice to quit, they were skeptical about its effectiveness.

I don't know how many of the patients that we see here really go back and do all of that [cessation advice]. To me somewhere I feel they go back, and they continue... - - Unless and until we find something [lesions, adhesions, etc.] in their mouth and they are scared - 'Now what next?' - That fear is there. Otherwise, I think they are less receptive generally. [F, 33, dentist].

Societal/community factors

Societal attitudes towards tobacco and its use in traditional customs emerged as important influencers of tobacco use from both user and practitioner perspectives.

Reasons for initiation

Tobacco products used in religious or cultural traditions influence initiation. These include grieving rituals, customary greeting of guests during celebrations, pregnancy-related traditions, among others.

And some people have the culture or the ritual belief in that [tobacco]. So, they greet each other with areca nut; they will give them paan [betel leaves and tobacco]. So, from there they begin the habit. And some people believe that if you give a pregnant woman paan or areca nut then the child will not catch a cold or fever - throughout the pregnancy. So, then they start, and they get addicted to it and finally then they cannot quit using it.

[F, 28, dentist].

Tobacco users indicated a preference for SLT because of more tolerant social norms towards SLT as compared to other addictive substances. Some reported switching from smoked to SLT forms for this

reason.

Practitioners reported cinema being an important factor influencing tobacco initiation in young people and statutory warnings accompanying on-screen tobacco use are ineffective in preventing initiation.

A major problem in all the movies is that smoking is glorified. What we are saying is that...it harms you. But in all the advertisements, movies... just writing 'smoking is injurious' doesn't really make sense. In the recent movie... Kabir Singh how they have glorified smoking?! And he [protagonist] has no health issues in the end!

[F, 28, dentist].

Reasons for continuation

A dominant theme among both smokers and SLT users was that tobacco helps in social situations by reducing inhibition. Some restrict tobacco use only to social situations like parties or weddings. Practitioners reiterated the social perception of SLT as a natural and hence less harmful product as a major facilitator for continued tobacco use.

The belief also somewhere that smokeless is less harmful. This is something you consistently hear patients saying, "I have switched to smokeless because it is less harmful. I put it in my mouth, I wash my mouth ... I spit out and I wash my mouth thoroughly. So, no tobacco is going in

[F, 33, dentist].

Another practitioner described how these perceptions are formed by lived experience and are a barrier to treatment compliance.

They say my grandfather is so many years old and he was using [tobacco]. He has not got anything [negative consequences]

[F, 31, dentist].

Motivators to quit

Although SLT use is integrated into some socio-cultural traditions in India, unfavorable attitudes towards tobacco consumption are also prevalent, particularly for smoked forms. Hence, users and practitioners report that the stigma associated with tobacco use can be a useful motivator.

Similarly, religion was reported to influence quit attempts by discouraging its use particularly during fasting periods. Although users did not mention this, some practitioners indicated its importance. One practitioner described how these "opinion makers" successfully make people quit substance use.

I feel that these gurus and all are a very important factor. I worked with this Kundai Swami [religious leader]. So many people have quit smoking only because he told them to. So, these are the people, we call them opinion makers in religious sects, should be putting pressure on people not to have addictions

[M, 59, oncologist].

Policy-related factors

Tobacco control policies were mentioned by both users and practitioners as important influencers of tobacco use in India as described by a user- "Sale should be stopped first" [M,55].

Reasons for initiation and continuation

Practitioners and SLT users reported that continued SLT use is associated with its price. While heavy taxes are levied upon cigarettes in India thereby increasing its price and making it an expensive habit, the opposite is true for SLT. A commonly used cessation strategy in clinical practice is to calculate money spent on cigarettes. But this strategy is ineffective for SLT owing to its cheap price, as a practitioner described:

They might think it's relatively harmless, but more than that I think it's looked at as a little pleasure... you know, because they don't spend too

much money on it, they earn so much. Just five or ten rupees spent on tobacco feels like a little indulgence

[F, 58, Psychiatrist].

Motivators to quit

The price of tobacco products influences motivation to quit. Smokers reported thoughts of quitting or switching to SLT forms when they didn't have money for cigarettes. SLT users experience a significant financial cost indirectly when they have to spend on healthcare or lose a day's wages to meet the doctor even when services are free. One user described this when waiting at the TCC:

Yesterday also I had to take leave. I lost my wages. Today also leave. So, because of this I wasted 2 days. So, if I had worked for 2 days then some money would have come to me. Because of this I am worried, and I don't know now for how many days I will have to worry. So, what is the use? Better than this is that I chew something similar...I'll chew chocolate

[M, 28].

SLT users also opined that policy-level interventions banning the production and sale of SLT will be more effective than individual-level interventions. Practitioners reported that increasing the retail price of tobacco products would strengthen their cessation interventions, particularly the cost calculator strategy reported earlier.

When you do the calculation then ultimately you will end up in numbers like thousand, thousand five hundred. Probably... they wouldn't have also realized that little, little when you add up together it becomes such a big amount

[M, 34, dentist].

Discussion

To our knowledge this is the only Indian study that examines the convergence and divergence of perspectives of SLT users, smokers and cessation practitioners in a single analysis, which adds to the evidence generated by studies reporting perspectives from these groups separately (Doraiswamy et al., 2020; Gupte et al., 2020; Jain et al., 2021; Karuveetil et al., 2020; Panda et al., 2013) and from user and practitioner perspectives for SLT only (Murthy et al., 2018).

We found that there was a high degree of agreement between the tobacco users and cessation practitioners on individual, interpersonal, organizational, community and policy-level factors that influence tobacco use in India. With regard to factors influencing initiation of tobacco use, our study findings were consistent with other studies in India (Doraiswamy et al., 2020; Murthy et al., 2018) which identified factors on multiple levels of SEF, such as, peer influence, curiosity or pleasure, coping, the influence of media and adolescent autonomy as primary reasons for initiating tobacco use.

We found differences between smokers and SLT users in some domains that are relevant to developing individual tailored cessation interventions for these populations. For example, while smokers were more likely to begin using tobacco to cope with psychological stress, SLT users were more likely to begin using in order to cope with tooth aches or hunger pangs (Jain et al., 2021). One study also reported parental pressure as a reason for initiating SLT in India (Karuveetil et al., 2020), which was contrary to our findings where parents reported being motivated to quit in order to prevent their children from picking up the habit. In line with these studies mentioned earlier we also found cultural norms and modelling tobacco-using family members' behaviors as factors influencing SLT initiation but not smoking. Qualitative studies from contextually similar countries (Ahmad et al., 2020) and among South Asian populations in high income countries (HICs) also highlight community level factors, similar to our findings, in initiation and continuation of SLT (Banerjee et al., 2019; Mukherjea et al., 2012). Women are more likely to begin using SLT after marriage as a result of these cultural

traditions (Karuveetil et al., 2020).

Similar agreement was noted between the groups on reasons for continued tobacco use. At the individual level, all three groups agreed that physical and/or psychological dependence were the main reasons for continued use. However, even here the physical reasons were dominant among SLT users while smokers continued using to avoid irritability and restlessness that occurred in the absence of tobacco use. These findings are consistent with other studies examining reasons for continued tobacco use in contextually similar populations (Murthy et al., 2018; Stoebner-Delbarre & Aghi, 2013). In addition, South Asian communities in HICs tend to view SLT use as a way to preserve cultural traditions and express ethnic identity in a new dominant culture (Mukherjea et al., 2012). In line with our findings that it is common for SLT users to be unaware of the causal relationship between their tobacco use and health problems, another study also found SLT users of Asian origin in HICs were more skeptical about the link between cancer and SLT and often associated SLT with health benefits (Banerjee et al., 2019).

While practitioners are aware of users' perspectives particularly with regard to initiation and continuation of tobacco use, gaps exist in incorporating these into the treatment delivery process. For example, while both parties described the role of occupational factors perpetuating tobacco use, practitioners viewed it as a justification to continue using rather than validating it as a significant challenge. However, this level of convergence is not visible among healthcare professionals who are not trained tobacco cessation interventionists. A mixed methods study conducted with 238 practicing physicians in high tobacco prevalence states in India found that less than one-third of physicians reported recording SLT history of all patients and less than half of physicians provided information on the harmful health effects of SLT (Panda et al., 2013) indicating an area for organizational interventions.

Retail price was another differentiating factor for continued tobacco use among SLT and smokers. SLT is ten times cheaper than cigarettes in India and therefore harder for the user to quit when viewing it from a financial cost perspective thereby indicating an opportunity for a policy-level intervention. This differs from HICs where the cost of SLT is a motivator to quit (Jitnarin et al., 2021). Our findings suggest that the indirect cost incurred due to treatment for health conditions caused by tobacco use is significant for SLT users.

Finally, there was similar agreement between perspectives of the three groups on motivation to quit tobacco use. All groups agreed that individual and interpersonal factors, such as, negative health effects on the individual and their family was the most effective motivator to quit. However, practitioners find that this works better with SLT users compared to smokers because of more tangible effects in them. A contextually distinct motivator to quit is emotional appeals about negative consequences of tobacco use on the user's family that although effective when delivered by practitioners, increases impact when delivered by loved ones. Another contextually important motivator is the use of religious influencers to deliver tobacco cessation advice. Finally, an important finding was that users reported feeling motivated to quit after being advised to do so by a physician. This finding is consistent with several other studies in similar contexts and populations advocating for healthcare practitioners to provide clear, personalized and culturally sensitive education regarding the risks of tobacco use (Banerjee et al., 2014; Doraiswamy et al., 2020; Jain et al., 2021; Murthy et al., 2018).

Implications for cessation interventions

Our study further strengthens the following evidence with regard to designing tobacco cessation interventions:

1. Interventions tailored to the distinct challenges of smokers and SLT users may be more effective than a common intervention for all tobacco users.
2. At the individual level, there is a need to provide effective alternatives to SLT users for dental problems and hunger pangs and to

smokers for psychological disorders like anxiety and depression which perpetuate tobacco use.

- Both groups (smokers and SLT users) may benefit from emotionally framed messages highlighting the impact of their tobacco use on loved ones, substitutes to combat cravings, strategies to cope with triggers and messages that promote self-efficacy.
- Active participation of family members in the treatment process is likely to increase effectiveness of the interventions. They can be coached to support the user in the implementation of behavioral strategies.
- The financial cost of tobacco use can be a useful strategy in cessation advice.

Nurses are ideally placed to implement the strategies listed under the clinical implications section. Nurses comprise the largest group of healthcare professionals in most parts of the world. Hence, adequately trained nurses may be especially useful in broadening tobacco cessation efforts, especially to underserved populations in low resource settings.

Strengths and limitations

There are certain limitations to this study. The study was conducted in Goa which has a low prevalence of tobacco use and with a small sample size. However, our findings have been consistent with other qualitative studies from Indian settings (Karuveetil et al., 2020; Murthy et al., 2018; Panda et al., 2013). Another limitation is that we were able to recruit only 1 female participant into the study. The strengths of this study lie in the diversity of the sample and the exploration of the multiple factors that influence tobacco use from diverse perspectives. The social-ecological framework made it possible to suggest multi-level interventions as opposed to viewing tobacco cessation as an individual-level problem requiring an individual-level intervention.

Conclusion

There are differences in the perspectives of smoked and SLT users but a high degree of congruence between tobacco user and cessation practitioner perspectives. Our findings reinforce the need for multi-level tobacco cessation interventions at the individual, organization, community, and policy levels. Individual interventions need to be tailored to the type of tobacco used and increase family involvement.

Informed consent statement

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000 (Sinha et al., 2014). Informed consent was obtained from all patients for being included in the study.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. This work was funded by the Department of Health and Social Care (DHSC), the Foreign, Commonwealth and Development Office (FCDO), the Medical Research Council (MRC), and Wellcome, UK (Grant number MR/R018456/1).

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