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Migration and Tobacco-Explosive Epidemic in Making? Lived Experiences of Tobacco use among Interstate Migrant Construction Workers in Chennai, Tamil Nadu

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ABSTRACT

Background: Migration impacts individuals physical, mental and social well-being thus acknowledged as a social determinant of health by increasing the health risks and vulnerabilities. Studying interplay of multiple factors associated with migration and tobacco use is essential for understanding the disproportionate burden of tobacco use among migrants. Objectives: To describe the lived experiences of tobacco use among interstate migrant construction workers in relation to migration and native socio-cultural factors in Chennai. Methods: Using qualitative narrative inquiry approach, with informed verbal consent brief personal interviews were conducted in Hindi language with interstate migrants at four construction sites in Chennai. The narrative quotes by migrants in Hindi were reported after translation into English. Results: Among 52 male and 5 female tobacco using migrants, the cultural acceptance and sanction for smokeless tobacco, peer influence on uptake of tobacco habits after arrival in the destination city, use of tobacco to overcome physical exertion and boredom were factors driving the higher use of tobacco among migrants. Conclusion: The study reveals the complex interplay of socio-cultural-economic factors associated with migration and disrupted social support systems as contributing to the high burden of tobacco consumption among interstate migrant populations.

Key word: migrant workers, social determinants of health, vulnerable populations, tobacco consumption, smokeless tobacco

INTRODUCTION

Migration is a global phenomenon with estimated 250 million international and 750 million internal migrants on the move. [1] Migration health is emerging as a public health priority and aligns with the doctrine of universal health coverage (UHC), expounded by World Health Organization (WHO) which highlights the principles of health equity, quality care and no financial hardship for beneficiaries. [2,3] Migration has impact upon individuals physical, mental and social wellbeing and is acknowledged as a social determinant of health by increasing the health risks and vulnerabilities. [4,5,6] The global health targets set through Sustainable Development Goals (SDGs) and UHC will ultimately remain unmet if the migration health is not understood in its complexity and factored adequately into policy reforms.[7]

As per the India Census 2011, internal migrants in India are estimated at 309 million, accounting for both intra and interstate migration. This is expected to reach 400 million i.e., a 1/3rd population of the country, an increase from 32.9% (2001) and 27.4% (1991). [8] The migrant is defined as when a person is enumerated in census at a different place than his/her place of birth. (Census 2011) The less developed states Uttar Pradesh (UP), Bihar, Rajasthan and Madhya Pradesh account for total 50% interstate migrants and politically disturbed north-eastern states of Manipur, Tripura, Nagaland and Assam are the major out-migrant states. The more prosperous states such as Delhi, Maharashtra, Gujarat, Punjab, Goa and Haryana and southern states of Kerala, Karnataka, Tamil Nadu and Andhra Pradesh in the past three decades were in-migrating states. The 'push' factors include poverty, lack of livelihood options in rural agrarian settings under distress while 'pull' factors are growing service and industrial sectors concentrated in urban areas.[9] The pull of South Indian states in internal migration is reflected as increased out-migration rates of Madhya Pradesh, Bihar and Uttar Pradesh.

The population of Tamil Nadu is 7.12 crores according to the Census 2011, and the state is home to 10.67 lakhs migrant workers.[8,10] About 27% of the migrants are employed in manufacturing sector, textiles industry (14%) and construction sector (11.41%). The migrant worker survey undertaken on behalf of state labour department shows that 20.9% migrants in Tamil Nadu reside in Kancheepuram district where major manufacturing companies such as Ford, Hyundai, BMW, Nissan business units are located.[11] This influx of huge migrant population into the state is attributed to special economic zones (SEZ) and thus leading to demographic changes including Hindi and Bengali spoken widely in urban areas. The same survey reveals that 51.3% of one million migrant population in Tamil Nadu are distributed across three major districts-Kancheepuram, Chennai and Tiruvallur of greater Chennai corporation (GCC) which attracted them for metro rail work and real estate construction projects.

As per Global Adult Tobacco Survey-2, India accounts for 12% of global tobacco use i.e.267 million and 28.6% Indian population aged 15 years and above currently used tobacco in 2016-17. [12] Every tenth and fifth Indian smokes and uses smokeless tobacco products respectively.(GATS-2) One in three (rural) and five (urban) adults consume tobacco daily (232.4 million). The prevalence of smokeless tobacco (SLT) use among adults was 21.4% (2017) i.e.,199 million adults, the largest SLT population of any country. The commonly used tobacco product is khaini-a tobacco-lime mixture (15.9%), followed by gutkha-a tobacco, lime, areca nut mixture (11.5%) and betel quid (5.8%). High rates of tobacco use especially smokeless tobacco forms such as khaini, ghutka, zarda, paan masala among migrant populations were established in multiple studies across India. [13-17] The current literature is predominantly quantitative in nature assessing the burden of the tobacco use and patterns of tobacco products used among migrants. The study of interplay of multiple factors associated with migration and lived experiences of tobacco use among migrant populations remain poorly understood. Qualitative-narrative studies are essential for comprehensive understanding of the role of migration and disproportionate burden of tobacco use among migrants. This is required to propose tailor made interventions to address the high use of tobacco among migrant population groups.

Objective: To describe the lived experiences of tobacco use among interstate migrant construction workers in relation to migration and native socio-cultural factors in Chennai.

METHODOLOGY

A qualitative study was undertaken among migrant construction workers across four construction sites in the sub-urban Chennai to understand the role of migration and native socio-cultural factors related to the use of tobacco. This pilot study was undertaken prior to initiation of a community-based tobacco cessation program and a purposive, convenient sample size of not less than 40 was arrived after review of published literature. Ethics approval was obtained (Ref.No:04/SEP/2019) for the study. The construction sites were approached to seek permissions for conducting health camps for migrant workers at 10.00 hours to 13.00 hours during weekdays. Health camps were organized by department of Community Medicine of Tagore Medical College Hospital, Chennai at construction sites in sub-urban areas of Sholinganallur, Kelambakkam, Kolapakkam, Rathinamangalam from January,2020-March 2020. A health education session on hazards of tobacco use was provided by principal investigator (PI) in Hindi language using hand-made pictorial charts during the health camps. A team comprising of (PI), medical officers, trainee interns, social workers, staff nurses of the rural and urban health centers attached to the department provided general health services, provision of drugs for common medical ailments such as fevers, respiratory infections, aches, minor injuries, fungal infections etc during camps. A semi-structured questionnaire which served as interview guide was adapted from Global Adult Tobacco Survey-Version 2.1 June 2014. [18] The original English language validated questionnaire was translated into Hindi and back-translated, pre-tested before field administration by the PI in Hindi to migrants who are habituated with tobacco use.

A qualitative narrative inquiry approach involving semi-structured, brief personal interviews was conducted by PI with migrants using the questionnaire-interview guide which collected socio-demographic characteristics, tobacco habits of the participant migrants.Brief personal interviews were conducted during the health camps at construction sites organized during January,2020 to March, 2020 with minimal disruptions to the work flow. During the four camps, general health care services were provided to 70-100 migrants and an average of 13 interviews per camp were conducted depending on the willingness of tobacco using migrants. Migrants were enquired about i. socio-economic determinants on migration ii. nativity and cultural factors associated with tobacco use iii. reasons for using various tobacco products iv. awareness about pictorial warning labels on tobacco packages and v. intentions or earlier attempts to quit tobacco use as per the GATS questionnaire. No audio recording was done as migrants were not willing and permissions were provided by site management only for oral interaction with migrants. No personal identification details were collected from the migrants to encourage voluntary participation. All the interviews were conducted onsite, in the presence of researchers during the health camps in a separate room by only PI in Hindi language. The PI is trained in qualitative research methodologies, fluent in Hindi language and has published prior qualitative research in peer reviewed journals. The descriptive, narrative testimonials as expressed by the study participants were noted as quotes translated from Hindi into English by the PI. The duration of the interviews ranged from 10-15 minutes per participant without negatively affecting their work duties. Women migrant

workers were very less in numbers when compared to men, hesitant and shy to participate in structured interviews individually. We conducted brief interviews involving groups of 2 and 3 women migrants at two sites and noted their testimonials as collective narrative than individual narratives like in male migrant workers. The nature of conducting health camps at construction site did not permit us to conduct in-depth interviews without disrupting the work and was not supported by the management.

Inclusion criteria: Interstate migrant construction workers both male and female who use tobacco in any form such as smoking, smokeless or a combination of both at least once daily. Interstate migrants, verbally consenting for brief interviews after assessing their tobacco habits using a questionnaire during health camps conducted at construction site.

Exclusion criteria: Interstate migrant construction workers who reported non-tobacco use at least once daily. Local and native of Tamil Nadu construction workers were excluded from the interviews.

Data Analysis

The descriptive quantitative data analysis was conducted using Microsoft Excel 2007 and proportions were calculated. The qualitative narrative testimonials was documented by PI and were reviewed collectively by two researchers (PI and corresponding author) and consensus arrived through interactive discussions among the researchers for inclusion of the testimonials according to the themes in the questionnaire.

RESULTS

In this study, we conducted semi-structured brief interviews with 52 male and 5 female migrant construction workers. The survey collected socio-demographic characteristics and tobacco consumption practices only for 52 male migrants which as shown in the Table 1.

The narrative testimonials were discussed under the following thematic areas as per the GATS survey questionnaire which served as interview guide. Additionally, female migrant perspectives were included to draw attention to the gender-specific issues involved in tobacco use among migrant women.

Socio-cultural-familial norms/factors

The socio-cultural factors associated with tobacco use among migrants from north and central Indian states to Chennai, a south-Indian state reveals a complex interplay of factors including migration status for use of tobacco among migrants.

Table 1: Socio-Demographic profile of migrant construction workers (n=52)

Variable	N(%)
Age group	
Less than 20 years	07 (13.46%)
21 to 30 years	25 (48.07%)
31 to 40 years	14 (26.92%)
41 years and above	6 (11.53%)
Indian State of Birth	
Bihar	21 (40.38%)
West Bengal	10 (19.23%)
Others-Orissa/7, Andhra/5, UP and Jharkhand/4, Delhi/1	20(38.46%)
Residence	
Rural	49 (94.23%)
Urban	3 (5.76%)
Read and write	
Yes	38 (73.07%)
No	14 (26.92%)
Monthly Income (in Indian Rupees)	
Less than 10000	36 (69.23%)
More than 10000	16 (30.76%)
Marital status	
Single	16 (30.76%)
Married	36 (69.23%)
Tobacco Use	
Smokers	21 (40.38%)
Smokeless	21 (40.38%)
Combination of both	10 (19.23%)
Consumption of tobacco in minutes after waking	
Less than 5 minutes	6 (11.53%)
6-30 minutes	3 (5.76%)
31-60 minutes	15 (28.84%)
More than 60 minutes	28 (53.84%)

"Madam we bring tobacco in loose crushed forms from our village…it costs us rupees five in villages…we will use it here little amounts every day…if any workers are coming from home we will ask them to bring a bag for us, we use it carefully to make it last long…."

"in villages (ghaon) chewing tobacco is normal, it is not considered as harmful to health like smoking(nasha), even if we are hungry and lacking food, we will just chew tobacco and manage (sambalthe hain)"

" when we go back to our villages we cannot smoke tobacco, so when at home with family we will stop using it, they do not allow using smoking tobacco at home, only when we come here, friends will offer and slowly we restart again(phir se)"

" at home we exchange local produce in our farm for tobacco, we chew it from very young age like 7-8 years, we don't think it is harmful, helps us to be relaxed (aaram)"

" tobacco is given as token gift for us when we come from homes to manage our loneliness away from homes due to migration"

Personal and lifestyle factors

Migrants descriptions revealed that tobacco serves them multiple purposes, as analgesic after hard days labour, coping tool for relaxation in a new environment due to migration missing their families, to hang out with friends and spend time, to bond with new migrants arriving from different places, as a medication for constipation etc.

" started using little amounts of chewing tobacco mix from friends/peers/co-workers to get relief from hard work and soothe my aches in the evenings and it helps to get sleep"

" buy swagath packet (smokeless tobacco product, most widely available in petty shops near construction sites) for Rupees 5 and use it carefully 3-5 times a day and manage with this for 3 days. After which I will buy another packet"

"we share among our circle of friends, sometimes when we have money we will byt a cigarette and share otherwise a bidi. Mostly we just use gutkha or khaini as it is affordable for us"

"use gutkha in the morning after waking up, to go to bathroom (bowel movements) or else it will be a difficult issue. Then after lunch and dinner I will chew little gutkha, or khaini just to relax"

"chewing tobacco is a time pass for me, nothing else to do here except work, so chewing it keeps us feel light in the head and removes our tensions about families back home"

"my friends only started me with chewing khaini after coming to Chennai. Our lives are difficult here, we can escape these hardships for few minutes only if we eat khaini…what else is there for us"

" have been smoking bidi for 20 years, 2-3 in a day, cannot cope with hard work otherwise, it is difficult labor working in construction, it gives me stamina"

"smoking for twenty years or more only one or two times a day ("no he is lying, all the time he will smoke bidis and smell badly himself and in the home too"-a wife interrupts and is shooed away, as she is determined to say about his tobacco habits, finally the male migrant worker walks away)

Pictorial Warning Labels

During interviews, when asked to describe the pictorial warning label symbols such as skull and bones, lungs etc, majority were able to explain and also read the warning in presence of the researchers.

"yes have seen these pictures on khaini packets, but is this cancer picture? it looks like a flower" oops!

"seen many advertisements in TV and movies on tobacco, but it is difficult to stop using as we become regular users now"

"ok, is this warning picture? I don't know about this as am not a literate"

"though we have seen many health messages forwarded by friends in phones, we never thought of stop using tobacco, it helps us relax, what else we have?"

"yes, now that you explained these warning pictures may be I will reduce my tobacco as it is impossible to quit after 40 years"

Tobacco Cessation

Majority of the participants who interacted with us were eager to discuss cessation of tobacco but migrants who were long duration users were sceptical about quitting and appeared to have accepted that they may never quit tobacco.

" can leave (chod dhenge) today also, no big deal…."(smiling mischievously)

"yes, I have been quitting many, many times…. sometimes I will leave it for 2-3 weeks and then we see friends smoking and chewing, and suddenly an urge arises to take one time and then slowly I will restart"

"I can try to quit if you advise but it is not easy, as I tried in the past on my own…can you give me some medicine?"

" wanted to quit tobacco chewing many times, attempted for two or three times every month but again I continue…can you give me any medicine (dhavaa-Hindi) to quit"

"I am ready to quit as you are saying it is harmful to health, but will you help me? give me some medicine (injection)…I know there are medicines for quitting tobacco habits, please help me"

"is there medicine to stop tobacco? I know about bubble gums (nicotine gums) is that a medicine/treatment for tobacco? how much does it cost?"

"if I get free treatment for stopping tobacco smoking, like they show in films, I can try, am not going to loose much is in't it?

"I tried bubble gum (nicotine gums) once given by friend but cannot continue later"

"Madamsa, please help me quit, I can quit with your support"

Female migrant perspectives

We found very few migrant workers at the construction sites included in this study during our health camps and only five of them consented orally to interact with us but not for collecting data with questionnaire. They are very shy to speak to us and we have to repeatedly assure we are only interested in knowing their thoughts and we are not going to reveal to the site supervisors.

" recently started chewing little bits of gutkha and khaini, taking it from my husband. I came here recently from my native and it helps me to manage my aches and pains due to hard work in the morning"

"been chewing paan quid along with tobacco loose crushed leaves since I am 15 years and now am 55 years, my teeth look stained but otherwise I have no health problems. I started it as young girl so I will continue with it.. nothing wrong is going to happen after all these years, am healthy is in't it?"

"been using gutkha since few years, it's keeps me fresh and am able to continue my work without too much fatigue, I don't know about its harms"

"was asked to chew tobacco after delivery to ease my pain, it helped me a bit, often I chew tobacco, 2-3 times daily, sometimes friends will share if I cannot buy myself"

"don't know about side-effects or ill health due to tobacco, I just started using it (chewing tobacco) here in the construction site after my women friends suggested"

"only small amounts am eating, what harm it can cause? it helps me relax and get sleep at night"

DISCUSSION

The study describes the narratives shared by the migrants when enquired about the role of migration, socio-cultural factors associated with tobacco use. Men migrant workers were the major respondents (52) and insights from women migrant workers were included for discussion.

Socio-cultural-familial norms/factors

The inputs shared reveal the cultural conditioning, sanction and acceptance of smokeless tobacco (SLT) use as normative contributing to wider use of SLT among

migrants from north and central Indian states compared to smoking. These specific patterns of tobacco consumption in India against socio-economic profile termed as *'social patterning of tobacco'* reveal differentials in tobacco harm perception against health consequences and indicate low reach of the tobacco control policies to the remote and unreachable populations.[18] Disintegration of Indian joint family system and increasing nuclear family settings devoid of elderly oversight contribute to increased smoking at individual and family levels.[19] Historically as well as traditionally many studies highlighted the inclusion of crushed tobacco leaves and areca nuts shavings as an ingredient for paan which informs deeply ingrained social-cultural acceptability in the mass psyche of rural Indians. Increase in consumption of SLT by Indian women aged 15 years and above (70 million, GATS-2) is an indicator of wider practice and cultural acceptance and invisibility as against tobacco smoking. Consumption of SLT is reportedly highest as seen in migrants hailing from north, north-east and central India, and perceived misconceptions related to tobacco use such as hunger suppressant, weight reduction tool perpetuates the consumption behaviors among men and women migrants. [13-17, 20]

Personal and lifestyle factors

Tobacco remains major preventable risk factor for non-communicable diseases such as cardiovascular diseases and cancer. Low-income populations at highest risk of exposure to tobacco are commonly missed out from early screening and prevention services. [21-22] Shah et al identified gender, wealth index and misconceptions about health benefits from tobacco use as determinants for continued SLT use.[20] Migration from rural to urban settings and resultant life style and behavioural changes contributing to increased uptake of tobacco and tobacco-associated lesions were most common during second to fourth decades of consumers life. [23-25] High levels of stress due to job instability, hard manual labour, long working hours, peer pressure and unhygienic living conditions were identified to be influencing tobacco use among migrant populations. [26] This is reflective of "*chewing tobacco is a time pass for me, nothing else to do here except work, so chewing it keeps us feel light in the head and removes our tensions about families back home"* as reported by a study participant.The economic factors such as the wages earned, unstable nature of job, high stress involved with the job, increased psychological stress involved in longer duration of migration leading to separation from familial support systems, exposure to urban culture and marketing likely to influence the smoking behaviours among migrants from rural to urban settings.[27-31] The workplace was the most common place for tobacco consumption among migrants revealing the peer influence and tobacco sharing practices while television advertisements were major sources for tobacco products promotion.[15, 32] The above findings are in concurrence with both men and women migrants narratives as reported in this study which highlight the universal lived experiences of migrants and tobacco.

Pictorial Warning Labels

Pictorial warning labels (PWL) about tobacco harms are mandated by Supreme Court of India occupying 85% of packaging space.[33] Majority of the migrants reported greater awareness of the tobacco related health hazards despite admitting the inability to quit tobacco on their own.[15-17] In this study also, we found migrants being aware of PWL but the life experiences counter their impact and do not contribute to quit tobacco. Cui et al identified that social isolation and discrimination among rural to urban migrants manifested as life stress and work stress is associated with smoking.[34] Indian migration study, reported high levels of psychological stress just after migration, demonstrating the acculturation stress hypothesis which emphasises that living in new culture promotes mental disorders.[35]The higher prevalence of tobacco use among rural populations, migration trends from rural to urban settings exacerbate the mental stress and lead to risky behaviours including tobacco among other substance abuse.[36] Positive mental health (PMH) an expression of healthy mind, a balanced emotional life and a strong personality is found to be risky for recent tobacco consumption among migrants unlike in rural population where it acts as a protective factor against lifetime tobacco consumption.[37] Bazo-Alvarez et al report the distinction between PMH and tobacco consumption among rural-to-urban migrants and non-migrants. It is essential that misperceptions related to tobacco especially SLT need to counter through mass education campaigns with special attention to circumvent the cultural influences.

Tobacco Cessation

Multiple studies among migrant populations reported varying levels of intention to quit tobacco ranging from 25% (Tirukkovalluri et al,17), 46 % (Amrutha et al,26), 50% (GATS India,39), 73%(Parashar et al, 38). The poor interest to quit tobacco among migrants was linked to lack of awareness about health risks associated especially with smokeless tobacco, poor access to health services, misperceptions about tobacco use as mental coping aid and poor knowledge about tobacco control. [17] Rameshan et al, cited that for majority of migrant workers tobacco is a mode of recreation and lack of awareness of tobacco related health ill-effects is linked to unwillingness to quit tobacco. [40] In this study, migrant workers were explicitly requesting assistance to quit tobacco through nicotine gums which reveals their awareness of nicotine replacement therapies (NRT) and medical assistance for quitting tobacco. National tobacco control policies should address the demands for NRT among low-income population groups especially through targeted interventions for migrants similar to the HIV screening program for migrants include in NACO. The low-cost NRT product innovation, accessibility to NRT products coupled with behavioural interventions such as counselling might

facilitate successful transition from intention-to-quit tobacco to a reality of quitting tobacco for migrants.

Female migrants

The women migrants included in our study were 5 in lieu of limited numbers of women workforce in the construction sites we visited during this study. It was difficult and challenging to engage women to share their lived experiences with tobacco as explained earlier. A limited number of studies about tobacco use among women migrant workers in India were published but there is need to address this gap and establish gendered dynamics of tobacco use like attempted with our study. Gupta RK et al, in a study among women migrants to Jammu region (Jammu and Kashmir) found that daily smoking was lower than males, workplace and family were the places for first time smoking, peer pressure and curiosity were the main reasons for smoking, and an acquaintance provided the first tobacco product for use. [41] In a study assessing SLT use among women migrants to Mumbai found SLT as widely accepted culturally with more of poly users (multiple SLT products).[42] Illiteracy, number of years of stay in destination city, husbands use of SLT, ease of availability, affordable range of wide variety of smokeless forms of tobacco products in urban slum areas of Mumbai were linked to poly-SLT use among middle-aged, low-income earning women. [43] This is similar to descriptions from women migrant workers in this study who were initiated to use SLT after arriving in the destination city by their peer networks and enabling environment of SLT use by spouse. Though tobacco chewing was found to be the most common among female migrants in multiple studies migrant, a Chandigarh-based study reported smoking tobacco such as bidis associated with lack of formal education, working status and earning monthly income of 30,000 rupees and presence of smoking habit in a male family member. [44] With emerging evidence of increasing tobacco use among Indian women, it is imperative that comprehensive women-specific tobacco policies are urgently needed. Jean J Schensul et al recommend tobacco cessation programs which are tailored to women's needs by assessing their readiness to quit, and campaigns designed specifically for women tobacco users. [45] Policy measures have to reflect the specific dynamics involved in tobacco use by migrants and women and incorporate tailor-made therapeutic interventions (including NRT) targeting vulnerable populations to realistically achieve the goal of tobacco-free nation.

Conclusion

Drawing on interactions with migrants, an intersection of multiple factors like socio-cultural acceptance and sanction of SLT, migration specific-life style behaviours associated with tobacco use and misperceptions about benefits of tobacco are driving the high tobacco use among migrant construction workers, in Chennai.

Recommendations

Further research and in-depth exploration of links between migration and tobacco use with participatory research approaches is required to confirm these findings. Tobacco control policies should include vulnerable populations such as migrants with special attention to women migrants through targeted interventions. Population based pilot studies on alternative, workplace-based care delivery models for tobacco prevention and control are to be explored urgently to turn the tide against explosive tobacco use among migrant populations.

Limitations

Though purposive, convenient sampling with limited sample size is utilized in this study conducted at four construction sites employing interstate migrant workers in Chennai we believe these qualitative findings might adequately represent the socio-cultural-economic determinants for tobacco use among migrant population involved in construction sector across the South India. The qualitative narratives presented were from sample size of 52 men and 5 women migrants with brief interviews conducted at worksites and thus may reveal only limited perspectives. The hesitation of migrants especially predominantly seen among women migrants to interact with researchers at worksite made the in-depth exploration non-feasible.

Studies with large samples and distinctly among women migrants which explore deeply the interplay of multiple factors for using tobacco among migrant populations are much needed. The future qualitative studies may include small group discussions (SGD) and focus group discussions (FGD) with 6-8 migrant workers, conducted separately for men and women at residential settings with consent may be more fruitful. These studies are essential to inform the designing of tailor-made interventions to address the tobacco harm reduction and cessation support needs in this vulnerable population group.

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