



Research article

Factors influencing tobacco use behaviour initiation – From the perspective of the Capability, Opportunity, Motivation- Behaviour (COM-B) Model

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ABSTRACT

Introduction: Non-communicable diseases such as ischemic heart disease, cancer, diabetes, and chronic respiratory diseases are the leading causes of death worldwide, and are associated with tobacco use. The ultimate goal of health professionals and researchers working to combat smoking's extremely harmful health effects is to prevent smoking initiation. Nearly 5500 new smokers are added each day, for a total of almost 2 million new smokers each year. The COM-B model's primary goal is to determine what needs to be done for a behaviour change to occur. Behaviour modification requires an understanding of the factors that drive behaviour.

Aim: The current qualitative study intends to explore the factors affecting tobacco use initiation (TUI) using the COM-B model, given the relevance of investigating the factors affecting TUI and the model.

Methods: The present qualitative study has used a directed content analysis approach. Seventeen participants who reported having started any kind of tobacco in the last six months were recruited in the study using a purposive sampling method to understand the factors affecting TUI. The data was collected through interviews, and all of the participants were from the Hyderabad-Karnataka region of Karnataka, India (a state which has been reported as having the highest prevalence of cigarette smoking in India).

Results: Directed content analysis revealed six categories: psychological capabilities affecting TUI (lack of knowledge about adverse health effects of tobacco, behavioural control, and poor academic performance), physical capabilities affecting TUI (lack of better physical resilience), physical opportunities favouring TUI (tobacco advertisements, easy access of tobacco products, and favourite star smoke on screen), social opportunities favouring TUI (peer influence, tobacco use by parents, tradition of hospitality, tobacco use as a normal behaviour, and toxic masculinity), automatic motivation causal factors of TUI (affect regulation, risk taking behaviours and tobacco use for pleasure) and reflective motivation causal factors of TUI (perceived benefits of tobacco, risk perception, perceived stress, and compensatory health beliefs).

Abbreviations: TUI, Tobacco Use Initiation; COM-B, Capability, Opportunity, Motivation- Behaviour.

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Conclusion: Identifying the factors that influence TUI may help to limit or prevent people from smoking their first cigarette. Given the importance of preventing TUI, the findings of this study indicated the factors that influence TUI, which can be valuable in improving behaviour change processes.

1. Introduction

Tobacco use behaviour is one of the major modifiable behavioural risk factors for many illnesses and disabilities. On average, each cigarette smoked cuts someone's life by 11 min [1]. It damages every organ in the body and brings about a number of fatal diseases (such as cancers, cardiovascular diseases, and chronic obstructive pulmonary diseases), as well as disabilities (such as an increased risk of tuberculosis, certain eye diseases, and immune system issues, such as rheumatoid arthritis) [2]. The harm of this risk behaviour is not limited to a person's physical health; studies have shown a link between this risk behaviour and various mental disorders such as schizophrenia, anxiety disorders, and depression, which exacerbate a person's mental state [3].

Nearly 8million people die each year worldwide, and according to the World population review report in 2018, tobacco usage is noticeably prevalent in India at 27% [4]. India's largest population of chewing tobacco users is 185.8 million, accounting for 68% of all global chewing tobacco users [5]. According to a tobacco control study conducted in six Indian states, Karnataka has the highest rate of cigarette smoking, at 63.68% [6]. Every day, thousands of young individuals begin smoking cigarettes. On an international level, as per the records of the SAMHSA [7], everyday about 2 thousand minor people start their first cigarette, and in India, about 5500 new smokers are added per day, resulting in 2 million new smokers every year [8,9]. Given the alarming prevalence statistics, professionals in the field have emphasised that tobacco control implementation at the state level in India is weak and needs to be addressed [6]. Furthermore, if the current situation continues, analysts predict that by the year 2030s, the prevalence will reach 10 million people per year [10].

To combat the extremely dangerous health effects of smoking, health professionals and researchers have focussed on two broad types of interventions, such as stopping smoking initiation and smoking cessation [11]. They recommended that the prevention of smoking initiation should be a major priority which brings many benefits, including years without disabilities and reduction of health care costs [12]. It is also the goal of public health to intervene in the factors affecting TUI as soon as possible to prevent illness, disability, and premature death [11,13]. Because abstinence is reliant on the level of dependency of the individual, it is far more difficult to achieve cessation of the person becoming dependent on smoking [14]. Primary prevention aims to prevent disease or injury before it occurs [15]. Similarly, it can be assumed that the primary prevention in tobacco use prevention refers to identifying factors that affect TUI to prevent risky behaviour. It is critical to gain a better understanding of the reasons for their smoking initiation. The initiation of tobacco use is influenced by a complex interplay of personal, social, and cultural factors. According to the literature, having a smoking friend, having peers who pressure you to smoke, youth who have left home, a lack of family support, and an inverse significant relationship with religiosity are a few of the significant associated factors for smoking initiation [16–18]. Identifying the factors affecting TUI may reduce or prevent people from picking up their first cigarette among vulnerable populations [13].

The report on tobacco control in India recommends research scientists identify multiple tobacco-use determinants. One of the notable methods to identify the factors influencing tobacco use behaviours is to use prominent theories and test the factors on specific populations [19]. Most tobacco use prevention efforts have focused on risk and protective factors, backed by diverse psychological, educational, sociological, and ecological theories [20]. Theories can aid in designing behaviour change interventions in various ways, including promoting an understanding of health behaviour, guiding research, and facilitating the transferability of intervention from one health concern, geographic location, or healthcare environment to another [21]. Currently, there are more than 30 psychological theories of behavioural change, and it is difficult to choose the most appropriate one when designing an intervention [22]. In other words, none of the major theories have guided how to proceed with implementation strategies after recognizing risk factors. To address this, the researchers Michie et al. [23] have developed a model called the COM-B model.

It states that in order to bring out the behavioural changes, primarily it is necessary to have a theoretical framework of behaviour and behavioural change. This model is the hub of the behaviour change wheel, where it proposes that behaviour occurs as a result of interaction between capability, opportunity, and motivation. Capability refers to a person's psychological and physical capabilities to engage in a necessary behaviour. Psychological includes the capability to engage in necessary thought processes, and physical capability could be the physical skills to perform something, strength, and endurance of an individual in performing a behaviour. Opportunity refers to all the factors that lie outside the individual and makes the behaviour possible; further, physical includes workplace environment, locality, and advertisements, and social opportunity is about the cultural background that dictates the way we think about things. Lastly, motivation refers to all the brain processes that energise and direct the behaviour. It includes habitual processes, emotional responding, and impulses arising from innate dispositions. The main premise of this model is that to perform any behaviour-one must believe they are both psychologically and physically capable of doing so; one must believe they have social and physical opportunity for the behaviour; and one must believe they want/they have a need to do the behaviour more than any other competing behaviours [23]. Applying this to the context of tobacco use behaviour entails the following questions: (a) What are the psychological and physical capability factors that allow a person to begin using tobacco? (b) What are the social and physical opportunities that influence a person's decision to start tobacco use?; and (c)What are a person's motivational factors to begin tobacco use?

Controlling unhealthy behaviour is considered the ultimate goal of health professionals working on this concern. Any behaviour

could be effectively controlled if a researcher had a deeper understanding of the contributing factors. This understanding of the latter mentioned questions could be addressed substantially by using qualitative inquiry. Considering the importance of studying the factors affecting the commencement of tobacco use behaviour and the COM-B model, the present qualitative study aims to explore the factors affecting TUI utilising the COM-B model.

1.1. Significance of the study

Since the mid-1960s, a wide range of programmes and policies have been implemented to discourage tobacco use in an effort to reduce the enormous burden of tobacco use behaviour. Still, the cost of this risky behaviour is increasing. Using prominent theories and testing the factors on specific populations is one of the notable methods for identifying the factors influencing tobacco use behaviours.

Most tobacco use prevention efforts have focused on associated factors, which are supported by various psychological, educational, sociological, and ecological theories. There are currently over 30 psychological theories of behavioural change, making it difficult to select the most appropriate one when designing an intervention. The COM-B model is a recently developed model that guides intervention strategies. Researchers also indicated the importance of studying region-specific associated factors of health behaviors to implement suitable population-specific preventive measures as they differ from region to region resulting from cultural and social norms.

Given the importance of studying region-specific factors influencing tobacco use behaviour, preventing tobacco use initiation, and the COM-B model for guiding interventions, the current qualitative study aimed to investigate the factors influencing TUI among the rural population of Hyderabad-Karnataka region from the perspective of the COM-B model.

2. Methods

2.1. Study design

The present qualitative study has used a directed content analysis approach to explore the influencing factors of tobacco use initiation from the perspective of the COM-B model.

2.2. Study area

The study area included rural areas of the Hyderabad-Karnataka region. It is the northeastern part of the Karnataka state. According to the Human Development Index prepared by the Planning Department, this region is considered one of the state's underdeveloped regions with low levels of human development [24]. Based on the reports of the Indian National Health Survey report-4 (2015–16), considering the health index values and prevalence of hypertension and other non-communicable diseases, the researchers had purposively chosen Bidar, Gulbarga, and Raichur districts.

2.3. Approach used to reach participants

Individuals who belonged to the rural areas of these three districts were approached at their households & workplaces and enquired if they used tobacco or not. If the approached individuals used any type of tobacco, they were briefed about the study and asked if they were ready to consent to participate.

2.4. Sample

The study used purposive sampling to recruit participants from rural areas of the Hyderabad-Karnataka region. The chosen 17 participants were tobacco users who were at the initiation stage. Among them, 14 were men and 3 were women, and their ages ranged from 17 to 21 years, and the mean age of the participants was 18.64 years.

2.5. Identifying the stage of tobacco use behaviour among the consented tobacco users

Tobacco users who had given consent for participation were initially given the "Contemplation ladder" [25] assessment tool to figure out which position they belonged to in a continuum ranging from "having no thoughts of quitting" to "being engaged in action to change one's tobacco use behaviour". Tobacco users who marked on "I enjoy smoking and decided not to quit smoking for my lifetime. I have no interest in quitting" and "Recently started in the past six months at the time of data collection" were identified as in the commencement stage.

2.6. Inclusion criteria

1. Tobacco users who had marked on "I enjoy smoking and decided not to quit smoking for my lifetime. I have no interest in quitting" and
2. Tobacco users who had reported that they have recently (within the past six months from data collection) started with any form of tobacco and

- Tobacco users who had reported that they have been residing in rural areas for at least 2–3 years.

Ethical approval

This study was approved by the Department of Psychology, School of Social and Behavioural Sciences, Central University of Karnataka, India (Ethical clearance number: CUK/SDBD/Psy/EC-17/2020-21/17).

2.7. Procedure

Tobacco users who expressed interest in participating in the study were chosen. Among them who met the criteria were entitled to participate. Confidentiality, anonymity, and permission to record the session were obtained. Data was collected using the semi-structured interview method. A review of the literature suggests that it is not just one factor or one situation that may have led any tobacco user to begin, rather a series of situations. The same was explained, and participants were instructed to consider as many possible situations that led them to engage in this behaviour, and they were instructed to explain in detail how they began using any form of tobacco. Through leading questions, the interviewer attempted to elicit as many causes as possible- "It is not just one factor or reason that might have prompted you to start using any type of tobacco; there may have been certain instances that led you to start using. So could you kindly describe the circumstances that prompted you to begin using tobacco?". To generate more comments, some prompts were utilised, such as "Was there also any role of your friends or family members?" and "Is it also because of tobacco advertisements?"

2.8. Data analysis

The audio-taped recordings were translated from Kannada and transcribed into the English language. The transcribed data were analysed through the lens of COM-B domains using directed content analysis [26,27] by following the procedures mentioned below.

2.9. Steps used in directed content analysis

The processes are represented as two main phases: preparation and organizing. The preparatory phase basically involved developing an interview guide, for which all the authors had worked on developing a theoretical understanding of the factors associated with the TUI from the perspective of the domains of the COM-B model through systematic review. This process of the systematic review on tobacco use initiation has helped the authors to theoretically define the main category and sub-categories. This phase of analysis has also included the conduction of interviews, transcription of interviews, reading and re-reading the interviews to get a sense of the overall picture, i.e., to gain a general understanding of what the participants were describing. The next phase included organizing the data, which involved inductive abstraction of main categories from preliminary codes, and establishment of links between categories and main categories.

Dependability, credibility, transferability, and confirmability are used to ensure the trustworthiness of the study [28]. To ensure credibility, the researchers spent a lot of time conducting the interviews and analyzing the data. Also, the collected data were implemented and coded immediately after each interview. For transferability, the researchers provided a description of the participants and the overall analysis. Confirmability and transferability were maintained by summarizing the information provided by the participants and receiving their views [28]. In addition, the research team discussed the findings at various stages of the analysis.

Table 1

Key factors that influence commencement of tobacco use behaviour among study participants.

Capability	Opportunity	Motivation
Psychological capability	Physical opportunity	Reflective motivation
<ol style="list-style-type: none"> Lack of knowledge about adverse health effects of tobacco Behavioural control Poor academic performance 	<ol style="list-style-type: none"> Tobacco advertisement Easy accessibility of tobacco Favourite star smoke on screen 	<ol style="list-style-type: none"> Perceived benefits of tobacco 1a. Fun 1b. To strengthen confidence levels 1c.Helps to alleviate toothache 2. Risk perception (Risk denial and risk acceptance) 3. Perceived stress 4. Compensatory health beliefs
Physical capability	Social opportunity	Automatic motivation
<ol style="list-style-type: none"> Lack of better resilience 	<ol style="list-style-type: none"> Peer influence Tobacco use by parents Tradition of hospitality Tobacco use as a normal behaviour Toxic masculinity 	<ol style="list-style-type: none"> Affect regulation Risk taking behaviours Pleasure

3. Findings

This study aimed to explore the reasons for the initiation of tobacco use behaviour in participants who had recently started using any form of tobacco. The data were analysed from the perspective of the COM-B model, and the analysis revealed six categories (Tables 1 and 2), namely: psychological capabilities affecting TUI, physical capabilities affecting TUI, physical opportunities affecting TUI, social opportunities favouring TUI, automatic motivation factors causing TUI and reflective motivation factors causing TUI.

3.1. Factors identified under capability domains

Category: 1 Psychological capabilities affecting TUI.

Individuals who are unable to engage in the necessary thought processes are more likely to engage in health-risk behaviours. The examination of the meaningful units revealed that the individuals had certain “psychological capabilities” that led them to begin the health-risking tobacco use behaviour. In this category, three primary codes emerged: “lack of knowledge about adverse health effects”, “behavioural control” and “poor academic performance”. Participants who did not perform better academically reported beginning to smoke. “I started smoking when I got the results and I had backlogs in my PUC first year,” said participant KS. Another participant, PG, stated, “I know I am not so good at academics ... however much I tried to perform better in exams, I was not able to ... probably that’s when I started to overcome the pain of not being able to do better.”

One of the factors identified for initiating the risk behaviour was participants’ lack of knowledge about the harmful health effects of tobacco use, while another factor was the participants’ control over their behaviour, resulting in the risk behaviour being initiated under the assumption that they would not go uncontrollably. The following are significant meaningful units for each of the primary codes:

Lack of knowledge about adverse health effects:

“No, I don’t think smoking causes any health problems. Many people I know or I see, do smoke, and it doesn’t cause any serious health issues, even if it does, possibilities are more for those who are addicted to it” [Participant HN].

“Take any matter, the problem occurs when it taps the extremes, so does smoking too, it may cause problems to people who smoke severely, but not to those who are in limits” [Participant RC].

Behavioural control:

“As I said, any matter would become a problem when we do it at extremes, and I believe, in life we have to experience everything and go with a flow, I know what I’m doing, situations made me start smoking and I know I have control on my behaviour so I smoke in limits” [Participant RC].

“See, it’s just smoking, not a big deal, it is just that you must have control and so I know what I’m into and how much I’m smoking that is it” [Participant SP].

Category:2 Physical capabilities affecting TUI.

In addition to psychological capabilities, the analysis identified other capability factors, namely physical capability, that influenced the initiation of tobacco use behaviour. Participant RJ has reported “I were a person who didn’t want to smoke, but what to do, I feel exhausted most of the times because of work burden, I have to attend the work at any time they call me, so to be active and to overcome that feeling of being exhausted I have started this..though I didn’t wanted to”, and another participant DV has stated that “I am a daily wage

Table 2

Frequencies of factors affecting tobacco use initiation.

The COM-B Domains		Factors affecting TUI	Frequency of factors affecting TUI	% factors affecting TUI
Capability	Psychological capability factors that allow a person to begin using tobacco	Lack of knowledge about adverse health effects of tobacco	7	41.17%
		Behavioural control	8	47%
	Physical capability that enables a person to start using tobacco	Poor academic performance	3	17.64%
		Lack of better resilience	4	23.32%
Opportunity	Physical opportunity that influence a person’s decision to start tobacco use	Tobacco advertisement	8	47%
		Easy accessibility of tobacco	11	64.70%
	Social opportunity that influence a person’s decision to start tobacco use	Favourite star smoke on screen	7	41.17%
		Peer influence	12	70.58%
		Tobacco use by parents	9	52.94%
		Tradition of hospitality	3	17.64%
		Tobacco use as a normal behaviour	7	41.17%
		Toxic masculinity	6	35.29%
Motivation	Reflective motivation factors to begin tobacco use	Perceived benefits of tobacco	13	76.47%
		Risk perception	8	47%
		Perceived stress	7	41.17%
		Compensatory health beliefs	7	41.17%
	Automatic motivation factors to begin tobacco use	Affect regulation	12	70.58%
		Risk taking behaviours	9	52.94%
		Tobacco use for pleasure	7	41.17%

labour, I have to do lot of heavy works like carrying heavy luggages, I would feel tired, and there is no proper timings so to overcome the tiredness, hunger I smoke”, indicating the inability of a person to respond healthily to stressors, which resulted to the emergence of the “lack of better resilience” primary codes under the category “physical capability affecting TUI”.

3.2. Factors identified under opportunity domain

Category:3 Physical opportunities resulting TUI.

Besides the personal factors that contribute to TUI, there are certain physical opportunities provided by the environment influencing TUI. One of those environmental factors is tobacco advertising. Participants explained how they added ‘start smoking’ to their wishlist after being influenced by a tobacco advertisement. Participant VR stated “It was in my wishlist or I would say it was one thing I wanted to do for a few years, I wanted to look sophisticated like they show in TV ads “. Another participant MH has stated “I think its advertisements in media that noticeably registered in my mind. Since then I wanted to as I grew up I got an opportunity to start it with my friends”.

In addition to the advertisements, participants reported being influenced by their favourite celebrity smoking on screen. Participant HM expressed his thoughts on how he was influenced to start smoking after seeing his favourite celebrity smoking on television. “Another reason I started smoking isI would sayI was influenced by heroes VD and YS (Film stars)though in moviesthe way they smoke is really good to see and I felt like smoking that way ... that’s’ how I started smoking, and I took photos the same way they did in the movies”. Another participant, PM, added, “Actually, that’s a crazy moment ... did you see the ABC movie? In that movie, the hero, the way he takes out the cigarette and the way he lights it, was actually very catchyit was then we wanted to try out the same way, and all of my crazy friends started imitating the same way, and later it became a habit”.

Easy access to any form of tobacco is one of the factors influencing TUI, with participants stating that buying any form of tobacco is as common as buying any other, and the substantive meaningful units given are:

“There is no particular reason, it is simple we do get it everywhere and we take it and smoke ... just like chocolates” [Participant SN].

“It is quite common here; we get it in every shops, getting cigarette was not at all a issue for us” [Participant RV].

Category: 4 Social opportunities favouring TUI.

Another external or environmental factor affecting TUI is the social opportunity, the cultural environment that shapes our thinking. According to this study analysis, friends and family members, the tradition of hospitality, smoking as normal behaviour, and toxic masculinity play an important role in shaping one’s thoughts and perceptions among the study participants.

The desire to fit in with a peer group and frequent smoking by friends influence an individual’s health risk initiation of tobacco use. The analysis identified “peers” as one of the primary codes of “social opportunities favouring TUI”. Participant RV quoted “All my friends in my gang, we always do things together, if one says do something ... that is it ... we will do itsame way all of sudden one day we decided to smoke and yes we started that way”. Another participant NV stated, “It helps me fit in my friend groups ... all my friends do ... so I do ... otherwise, that’s a headache “.

The analysis revealed that parents and family members play a significant role in their children’s TUI behaviour. Participants became interested in this risky behaviour after observing their family members smoking and having no health issues and their parents sending them to bring cigarette packets. “My grandfather is around 85 years old and still he smokes ... nothing has happened to himhe is all fine even at his 85 yearsfather smokes as well ... that’s kind of common thing and eventually i also started smoking ” said participant SP and participant VR added, “My father is a smoker, and there were times when he would send me to get cigarettes ... as you may have guessed by now ... I was curious about smoking ... and I began smoking ... though my parents are unaware.

According to the analysis, guests are frequently offered betel leaves at most gatherings or ceremonies. Two of the three female participants have started using smokeless tobacco in the form of betel leaves and areca nut, which is commonly served at social gatherings. “It’s kind of a habit here to provide betel leaves and areca nuts while people leave our home ... not just while they leaveafter having food, we normally offer them to eatso that’s how I started smoking tobacco,” participant SR explained. “It was in some function that I eventually started usingIt (betel leaves and areca nuts) would be served at most of the ceremonial functions here,” VL, another female participant, explained, referring to the hospitality tradition.

People indicating “Smoking as normal behaviour” is another cultural milieu that influenced participants to begin using tobacco. Few participants considered smoking to be normal behaviour until a person smokes heavily. The following are the supporting meaningful units:

“Smoking is a common thing, we don’t need to look at it as something forbidden ... everyone I know smokes, but in limits.” [Participant DV].

“See, it’s very common here ... people use it for a variety of reasonsno one would question you for smoking or using tobacco.” [Participant RV].

“Toxic masculinity” is another cultural milieu associated with men that accounted for tobacco use initiation behaviour among male participants. Few of the participants expressed a sense of cultural pressure if they did not engage in smoking behaviour, stating that they would be teased or mocked. And a few other participants agreed and stated that smoking is an unavoidable requirement for men. The following are the meaningful units that provide support:

“You know, it’s a man thingif you’re a man and you don’t smoke or drink ... you get teased and mocked by your friends.” [Participant SN].

“You may be aware ... there are few things that are meant to be maintained ... like smoking is a symbol of manliness ... every man would at least give a try if not now at least later ... It’s kind of a pleasure that you get when you get to show you are smoking .” [Participant NV].

3.3. Factors identified under motivation domain

Category: 5 Automatic motivation causal factors of TUI.

Automatic motivation refers to emotions and impulsivity that arise from related learning and innate tendencies. Analysis from a COM-B perspective identified “affect regulation”, “risk taking behaviour” and “smoking for pleasure” as primary codes under this category. To be free from stressors and feel calm, participants reported that they had begun tobacco-using behaviour, and the identified supportive and meaningful units were:

“ Yes to overcome tiredness i started smokingIt helps me feel relaxed and cope up with tiredness ” [Participant HN].

“Smoking helps me to feel calm” [Participant DV].

Personal characteristics like rebelliousness and sensation seeking influenced TUI. Participant SP stated that “Generally I enjoy doing things which are forbidden, that gives me thrill and excitement.. i wanted to feel how does smoking feels like so I did start” and the participant HM has quoted “You know it is like the more you oppose something the more we feel like doing thatsame happened my parents always controls me in almost everything I dowhen I joined college it was like a freedom for me and taken that as an opportunity and started with my friends” .

Yet another factor the analysis indicated under automatic motivational factors is “smoking for pleasure”. Few of the participants expressed their desire to experience pleasure or a sense of buzz to relieve as one of the reasons for them to initiate the tobacco use behaviour. Participant SP stated “I heard from many people that smoking gives a sense of high or a sense of pleasure, ... I wanted to experience that sense of pleasure or buzz whatever it is ... so I did,” and another participant, PG, has stated “Smoking is something that changes or vanishes your bad moods in a seconds NOE I had a wish to feel that kind of euphoric state that people say”.

Category:6 Reflective motivation causal factors of TUI.

Reflective motivation refers to the reflective process involved in planning and assessing what has already happened. Primary codes that emerged under this category include “risk perception”, “perceived benefits of smoking”, “perceived stress”, and “compensatory health beliefs”.

Participants recognized the risk in different ways, attributed the risk of smoking to addicted smokers, and few others accepted the risk. Participant RC stated that “Take any matter, the problem occurs when it taps the extremes, so does smoking too, it may cause problem to people who smoke severely, but not to who are in limits” and participant RJ stated “I know smoking is injurious to health, but what to do, I feel exhausted most of the times because of work burden, I have to attend the work at any time they call me, so to be active and to overcome that feeling of being exhausted I have started this..though I didn't wanted to”.

Participants reported that they have begun to use tobacco because of the specific benefits of gaining self-confidence, overcoming boredom, and alleviating the tooth pain. The meaningful units to support are:

“ Infact smoking helps in lot many ways like it adds up the fun among friends group and it kind of gives confidence in speaking with others” [Participant HM].

“ It helps us not feel bore and comfortable among friends” [Participant MH].

“I had a severe toothache so I started chewing betel leaves and areca nuts” [Participant BV].

Few participants started using tobacco to overcome the stress caused by personal problems and work-related tensions. Participant RJ said “Because of work stress i had started smoking” and another participant PG mentioned “To tell the another reason why i started smoking..it's because of lot of tensions and the situations were stressful ... where i needed something to feel relaxedand it happened to start”.

Compensatory Health Beliefs are beliefs that the negative effects of an unhealthy behaviour can be compensated for, or “neutralised,” by engaging in healthy behaviour. Participants reported certain compensatory health beliefs for their initiating tobacco use behaviour. They believed using tobacco was alright if they engaged in certain healthy behaviours. The supportive meaningful units are given below:

“Smoking is a common thing, we need not look into that as something forbidden the only thing is we have to be careful i mean it is ok as long as one sleeps well, exercises, and eats healthy ” [Participant PM].

“I did not even had a serious thought about it while i started smokingit is all okay ... just that we have to drink lot of water, have proper food and sleepthat is it ... it will definitely not harmful when we take lot of precautions” [Participant SN].

4. Discussion

Identifying the factors that influence TUI may help to limit or prevent people from smoking their first cigarette [13]. According to the COM-B model, it is pertinent to analyse the determining factors of that particular behaviour to stop the unwanted or undesirable behaviour. These factors help to understand what needs to change so as to change undesirable behaviour [29]. In terms of tobacco use initiation, if people are starting to use tobacco, an investigation of the determinants of tobacco use initiation will help specify what needs to change to stop people from starting to use tobacco. As a result, this qualitative study aimed to investigate the factors that influence TUI using the COM-B model.

4.1. Psychological and physical capability factors affecting TUI

Empirical studies conducted in India suggest that some people start using tobacco with the belief that they can control their use and only smoke in moderation. A study conducted by Sreeramareddy et al. found that many young adults in India believed they could control their smoking, while another study by Nair et al. found that some children in rural Kerala believed the same [30,31]. The current study's findings are consistent with the previously reported findings that participants believe they have good control over their

behaviour and that this belief is one of the reasons for initiating this risk behaviour. Tobacco use is highly addictive, and even a small amount of use can lead to addiction. Nicotine, the primary addictive substance in tobacco, creates changes in the brain that make it difficult to quit once a person starts using [32,33].

This belief may stem from a lack of understanding of the addictive nature of tobacco and the health risks associated with smoking. Participants in the study were not only unaware that nicotine's effects on the brain could cause them to lose control of their behaviour; analysis indicated a lack of understanding about the detrimental health implications of tobacco usage as well. The findings are in line with previous study findings, which indicated lower knowledge of specific health risks of tobacco consumption among users in India [34]. These results support global research suggesting that despite the evidence for the damages produced by cigarettes, most tobacco users worldwide are not completely aware of the risks other than lung cancer [35]. Most participants were unaware of the consequences of smoking other than lung cancer and were sure that it would not harm them, supporting the statement mentioned above.

The National Tobacco Control Program was established with the goal of raising awareness about the detrimental effects of tobacco consumption at the national, state, and district levels. Certain critical initiatives, such as public awareness/mass media campaigns for behavioural change and sensitization programmes, are carried out at all levels throughout India [36]. In a study of awareness about the adverse effects of tobacco use among adults in India, researchers Kankaria et al. [37] opined that, despite many and continuous efforts, lack of knowledge about the bad health effects of tobacco consumption constituted a reason for tobacco use behaviour or awareness has not been on expected trends. Existing literature in India reveals that awareness of the detrimental effects of smoking is linked to gender, age, ethnicity, education, income, and smoking status [38,39]. Enforcing the law alone will not result in the necessary changes; researchers indicated a need to see a shift in the people's attitude and behaviour regarding this public health issue. At the population level, proper awareness, health education, and communication are required to supplement the legislation [40,41].

Resilience refers to an individual's ability to adapt and recover from stress or adversity [42]. People with high levels of resilience can cope with difficult situations and emotions more effectively, which can lead to better overall health outcomes, including a lower likelihood of smoking and nicotine dependence [43–45]. Stressful life events and unpleasant emotions can make it more challenging to maintain resilience and cope with stress, increasing the risk of smoking initiation [46]. The present study analysis is in line with the studies, which indicated a lack of resilience as one of the initiating factors for tobacco use behaviour. Yet, another conducted by Singh et al. found that lower levels of resilience were associated with a higher likelihood of tobacco use initiation among adolescent boys in India [47]. Another study by Goyal et al. found that lower levels of resilience were associated with a higher likelihood of smoking initiation among medical students in India [48]. These studies suggest that developing resilience-building interventions could effectively prevent tobacco use initiation among vulnerable populations in India. Such interventions could focus on teaching healthy coping mechanisms and stress management strategies, which could help individuals better cope with life's challenges and avoid turning to tobacco use as a means of coping [46].

4.2. Participants' motivational factors directed TUI

The perception of smoking was found to be one of the elements influencing the start of tobacco usage. Tobacco initiation is heavily influenced by people's perceptions of the hazards and advantages of smoking [49]. Individuals may begin smoking tobacco to feel relaxed, enjoyable, to relieve stress, depression, anxiety, and to help them focus on their thoughts [50,51]. The present study findings also indicated that participants have started using tobacco to experience pleasure, regulate their emotions, and gain confidence. Lower educational attainment, a younger age of first cigarette purchase, a higher percentage of friends who smoked cigarettes, and hiding one's smoking from others were all linked to the belief that smoking is more useful than harmful to one's health. Smoking is also seen as more advantageous to one's health by individuals whose locus of control is internally rather than externally oriented. These six factors explained by Klein et al. [52] are likely to influence people's perceptions of smoking's benefits against its negative health impacts. Researchers who found comparable results emphasised the need to collaborate with smokers to diminish the perceived benefits of their tobacco use patterns [53,54].

Another benefit that this current study's participants perceived as motivating them to start using tobacco was the relief of tooth pain. This study's findings are consistent with those of a study conducted in Southern India, which found that the most common reason cited for starting to use tobacco was to relieve toothache [55]. Individuals may perceive it to be a quick and effective way to alleviate tooth pain, at least temporarily, but the fact is tobacco use can cause a variety of oral health problems, including tooth decay, gum disease, and oral cancer. In addition, tobacco use can exacerbate existing oral health problems such as toothache or sensitive teeth. It is recommended to promote healthy oral habits and discourage tobacco use by providing education and resources about oral health and the dangers of tobacco use. It helps individuals make informed decisions about their health and reduce the prevalence of tobacco use and associated oral health problems [55–57].

Cognitive dissonance occurs when the pleasure of engaging in an indulgent behaviour conflicts with the potential negative health effects, according to Knauper et al. [58], Cognitive dissonance is classified into three types, each with its own set of mitigating measures. First, when people have a high sense of self-efficacy or a low level of temptation, they resist this desire. Second, when the desire is extremely strong and difficult to control, people change their risk assessment of the behaviour and comply with it. Third, when the urge to behave is moderate, a conflicting belief, dubbed "compensatory health belief" by Knauper [58], is triggered. Individuals in this situation believe that engaging in healthy activities will compensate for the negative consequences of engaging in unhealthy activities.

According to the study's findings, compensatory health beliefs are another motivating factor that has led to the initiation of this risky behaviour, where they believed that drinking plenty of water and eating healthily would compensate for the negative effects of tobacco use and reported this as one of the reasons for starting to use tobacco. Several studies have examined the relationship between

compensatory health beliefs and smoking initiation among youth in India. A study by Srivastava and Lee found that among a sample of Indian youth, those with stronger compensatory health beliefs were likelier to initiate smoking [59]. Another study by Chadda and Sengupta found similar results, those who held compensatory health beliefs were more likely to perceive smoking as less harmful and socially acceptable [60]. This highlights the need to address these beliefs and promote a more comprehensive understanding of the negative health effects of smoking to reduce smoking initiation.

4.3. Social and physical opportunities that influenced participants' TUI

TUI has been impacted by extrinsic variables such as tobacco marketing and easy access to tobacco products. Previous research has found that receptivity to tobacco product advertising is linked to cigarette smoking susceptibility [61]. The notion of easy availability to tobacco products was found to be a significant predictor of intention to try tobacco by researchers Owusu et al. [62]. The media's portrayal of health risks influences people's attitudes, causing them to participate in risky behaviours. Previous research has found that depictions of characters smoking in movies/advertisements strongly influenced cravings and smoking behaviour [63,64]. The process of this persuasive media's impact on health risk behaviour is explained by narrative transportation theory, a well-established theoretical paradigm [65]. This theory explains that when a person is immersed in a story where they experience a high degree of cognitive and emotional involvement, the change in attitudes towards participation in health risk behaviour happens through counter arguing, increased connection with characters, and increased perceptions of realism. This process allows individuals to get influenced by changing their attitudes and beliefs about smoking through the media [66].

Numerous studies have shown that Peers and family members have a significant impact on smoking initiation. It could be peer pressure, friendship, the desire to fit in with a group of friends, parental or family member smoking status, elders' offerings, or parental prohibitions [62,66–70]. Peers and family members were also found to have an impact on smoking initiation in the current study. According to Tsai et al. [70], peer cues increase the likelihood of contingent smoking and should thus be addressed by anti-smoking policies and programmes. More specifically, special focus can be made to assisting smokers in avoiding or resisting social pressure to smoke, as well as assisting smokers in resisting the use of cigarettes as a stress reliever.

Along with the previously listed elements that influenced TUI, "tradition of hospitality" and "toxic masculinity" were two more cultural milieu characteristics that influenced how study participants thought about tobacco use behaviour. The findings of this study are similar to those of Shahjahan [67], who found that smoking and paan chewing can be part of a social gathering, confirming hospitality and binding friendships. Betel leaf is also traditionally employed as a symbol of hospitality in a variety of social (engagements and wedding ceremonies), cultural, and religious occasions. According to the findings of this study, toxic masculinity is another component, and these findings are consistent with those of Bush et al. [71] and Mishra [72], who indicated that boys watch their grandfathers or fathers smoking, so they believe it is a part of being a man. This highlights the importance of community-specific associated factors and mitigating strategies in developing effective preventive measures.

5. Implications for intervention strategies

The COM-B model recognises that many factors influence behaviour and that behaviour changes can be induced by changing at least one of these components [22]. The determinants of tobacco use initiation related to three domains of the COM-B model were identified in this qualitative study. The primary tool for tobacco control is widespread and active public awareness of the harmful effects of tobacco use, with a focus on all aspects of this impact, namely social, physical, financial, and environmental [18]. The two intervention functions most relevant to enhance the awareness about adverse health effects of tobacco use are education (increasing knowledge or understanding) and persuasion through media (using communication to induce positive or negative feelings).

Public education is an integral part of efforts to both prevent the initiation of tobacco use and encourage tobacco cessation [73]. Increased educational efforts about the detrimental health effects of tobacco use may result in higher levels of knowledge about the harms of tobacco. This in turn could increase quit intentions and subsequent quitting among users [33–35]. Peer education entails the sharing of information in small groups or one-on-one by a peer who has been matched to the target audience based on risky behaviour. A peer education-based programme targeted at preventing smoking uptake in secondary schools has demonstrated its efficacy in achieving a sustained reduction in regular smoking uptake among teenagers for two years following its implementation [74].

The media's dissemination of information concerning the harmful consequences of smoking on one's health influences or affects people's minds [75]. Preventive health messages are increasingly being delivered through the mass media (TV, radio, newspapers, and billboards) [76]. According to a review by Kremers [77], smoking prevention should strive to impact the image of non-smokers (i.e. positively influence non-smokers' identity) through mass media interventions. They also have the power to simultaneously modify a large portion of the community's knowledge or attitudes [78]. Because young people are regularly exposed to and engaged in media, it has been suggested that the mass media is particularly well suited to transmitting anti-smoking messages to them [79]. Studies have shown a significant decline in smoking initiation due to the media's effects [76].

6. Future recommendations

The COM-B model is primarily concerned with determining what needs to be done for a behaviour change to occur. Understanding the factors that influence behaviour is essential for behaviour modification. The current study attempted to identify the determinants of tobacco use initiation using the COM-B model. The identified factors must be tested on the study population using quantitative research methods to confirm the present study findings. Further research focusing on behaviour change could be conducted based on

the identified factors influencing tobacco use initiation. Though the current study provided an overview of the implications for intervention strategies to raise awareness about the negative health effects of tobacco use, the best way to identify available interventions is to conduct a systematic review of the interventions implemented in India thus far. In order to improve the implementation of intervention methods to deal with the factors influencing tobacco use initiation, future studies may conduct systematic reviews or meta-analyses to identify the existing intervention techniques in India for all identified factors determining tobacco use initiation.

7. Limitations

The following limitations must be considered when interpreting the current study's findings: The researcher relied on self-report data to identify which stage of tobacco use behaviour a participant belong to, which is a significant limitation. The study did not focus on any specific type of tobacco but on any type of tobacco. The study did not establish a cause-and-effect relationship between the factors associated with each stage of tobacco use behaviour. Lastly, the sampling included in this study was dominated by male participants; future studies could focus exclusively on female participants as the associating factors vary between genders.

8. Conclusion

It is recommended to develop culturally sensitive specific community programs to prevent the initiation of tobacco use. Further, it is essential to consider the cultural, psychosocial, and environmental factors that influence initiation. This qualitative study attempted to explore the factors influencing tobacco use initiation among study participants because identifying the determinants of behaviour is critical for effectively addressing behaviour change. Population-sensitive factors such as the tradition of hospitality, initiating tobacco use to alleviate toothache, and toxic masculinity, have been identified as a few influencing factors for TUI. The identified factors influencing tobacco use initiation may be useful in improving cultural and population specific behaviour change processes.

Declaration of competing interest

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R Lakshmi: Conceived and designed the experiments; Analysed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper. John Romate: Conceived and designed the experiments; Wrote the paper. Eslavath Rajkumar; Allen Joshua George; Maria Wajid Contributed reagents, materials, analysis of the data; Wrote the paper.

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Appendix A. Supplementary data

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