

Research Report

FACTORS INFLUENCING BETEL QUID CHEWING AMONG THE INDIGENOUS TRIBAL POPULATION IN WAYANAD, KERALA: A QUALITATIVE STUDY

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ABSTRACT

Background: Indigenous tribes are at higher risk of substance misuse, including betel quid. Available studies in this area focused on health hazards, while socio-behavioural aspects of betel quid practices are less studied, especially among the tribal population in India.

Objectives: The study was conducted to explore the factors influencing betel quid use among indigenous tribes in Wayanad, Kerala

Methods: Using a purposive sampling method, we selected 12 persons with betel quid use from Paniya and Kattunaicker tribal community at Wayanad. Qualitative in-depth interviews were used for data collection. The thematic analysis was done to understand the key themes and categories.

Results: We identified that betel quid chewing among tribes often initiated at a young age, with the influence of the home environment, parental, peer and spouse related factors. Key themes that emerged were the trajectory of betel quid use, betel quid intake, dependency, access and availability of betel quid in tribal dominant areas.

Conclusion: As our study result indicated many features of betel quid dependency, community level screening for identifying the potential cases and provision of treatment services might be required. Future studies to assess proper intervention for betel quid chewing can be undertaken.

Keywords: Betel quid, betel chewing, substance use, indigenous tribe, South India

INTRODUCTION

Betel quid, in its most basic form, consists of betel leaf, areca nut, and slaked lime. Areca nut, the principal psychoactive ingredient in the quid is considered as the fourth most commonly used psychoactive substance in the world, after caffeine, nicotine and alcohol.^{1,2} There is a spectrum of variations in the

ingredients and ways of preparing betel quid. In India, betel quid users also add tobacco^{2,3}, which doubles the health hazards. Betel quid chewing is responsible for half of oral cancer cases in India.⁴ A meta-analysis of 19 studies concluded that betel quid, even without tobacco, is a significant risk factor for oral cancer and pre-cancer.⁵

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Betel quid chewing is widely practised in Southern Asian populations^{6, 7}, and its use is higher among indigenous group² especially indigenous females.^{7, 8} The betel quid use is interwoven to many social⁹, demographic and ethnicity⁸ cultural, and religious practices.¹ Socio-economically disadvantaged groups are at higher risk for substance misuse^{10, 11}, and it is often linked to their historical oppression and socio-economical marginalisation.¹² Overall betel quid use has decreased over the years² as it was perceived not to fit into the modern lifestyle, while it is still widely practised among indigenous tribes in Wayanad, South India. Although betel quid use is high among the tribes in general, in some of the most backward tribal groups like Paniya¹³ and Kattunaicker, it is still higher. Majority of the research work in betel quid is focused on health hazards, while socio-behavioural aspects and factors contributing to such practices are less studied¹⁴, especially from Wayanad district which constitutes a home for one-third of the total tribal population in Kerala.¹⁵ Thus, we explored the factors contributing to betel quid use among indigenous tribes in Wayanad.

METHODS

The researcher used the qualitative in-depth interview method to explore the phenomenon of betel quid use. The study was conducted as part of Institute of Mental Health and Neurosciences (IMHANS)-tribal mental health project for Wayanad, supported by the Social Justice Department, Govt. of Kerala and District Legal Service Authority, Wayanad. The study got approval from the Institute's ethics committee. Informed consent was obtained in the form of thumb impression/signature after orally explaining the details about the study.

Setting

The study was conducted in Wayanad District, which is located in the north-east of Kerala state, with a population of 8,16,558. The scheduled tribe population in the district account for more than 18.5% of the total population, while the state average of tribes is a meagre 1.5%. Among the 4,84,839 of scheduled tribe population in the state, 1,51,443 are from Wayanad.¹⁵ Wayanad District consists of four community development blocks, namely Kalpetta Mananthavady, SulthanBathery, and Panamaram, and it has 25 Grama Panchayaths in total. The tribal population spread across all the Panachayts, although some Panchayats have a high concentration of the tribes. The low literacy among the tribes contributes to Wayanad's having relatively lower literacy rates than Kerala's other districts.¹⁵

Population and sampling

The tribes in Wayanad include various sects like Paniya (69,116), Kurichiyas (25,266), Kurumas/MulluKurumas (20,983), Adiya (11,196) Kattunaicker (17,051), constituting the majority.¹⁵ Using purposive sampling method, we selected Paniya (n=9) and Kattunaicker (n=03) tribe with current betel quid use, from three tribal colonies in Mananthvady (Begur Paniya colony and Iruvaki Adiya colony) and Bathery (Marakkadavu Paniya colony) Blocks. The potential samples were identified with the help of Tribal Promoters of the respective colonies.

The Paniya and Kattunaicker were chosen as they were the most marginalised and reported to have a high substance misuse.¹⁶ Paniya outnumbered other groups. They were slaves

of the non-tribal landlords in the early periods; however, currently, most of them are casual agricultural labourers¹⁷. Kattunaickers are a primitive tribal group and live in the forest, and they depend on various forest products for livelihood.

The data collection was done by in-depth interviews with each study participants. We used a brief, socio-demographic datasheet, and unstructured interview guide to conduct the in-depth interviews. The interviews lasted one to one-and-a-half hours, which were audiotaped. The field notes were also used for documenting the needed contextual information. Data saturation in qualitative research generally occurs between six and twelve interviews.¹⁸ In the current study, the data saturation occurred with 12 interviews. Data collection was completed by two weeks during November 2018.

Qualitative data analysis: The audio-taped in-depth interviews and field notes were combined for this thematic analysis. First, the researcher performed verbatim transcription. In this process, the audiotaped in-depth interviews were converted into text. After that, the converted verbatim transcription and field notes were translated into English. Then, lists of codes were developed based on the reading of the data, and these codes were allocated to data through coding procedures, which helped to categorise and stratify the data in a logical way. The inference was made or analysed with written comments on each category.

RESULTS

Major themes

The trajectory of betel quid use

Variable pathways were observed for the initiation of betel quid chewing. Many

Table 1. Socio-demographic details of the study participants

Variable	Frequency
Gender	
Male	04
Female	08
Age	
20 to 30 years	02
31 to 40 years	06
41 to 50 years	---
Above 50 years	04
Education	
No formal education	07
Primary	02
Upper primary	03
Marital status	
Married	10
Widow	02
Currently working	
Yes	09
No	03
Nature of work	
Manual labour at agriculture land/ MGNREGA* work	06
Collecting forest product (honey, amla fruit, areca nut etc.)	03
Not applicable (not working)	03
Currently smoking	
Yes	03
No	09
Currently drinking alcohol	
Yes	04
No	08
Age of the first initiation of betel leaf/quid	
10 to 15 years	04
16 to 20 years	05
Above 20 years	03
Age of regular use of betel quid	
15 to 20 years	02
20 to 25 years	08
Above 25 years	02
Money spent on betel quid on a day	
20 to 30 rupees	03
31 to 40 rupees	06
Above 45 rupees	03
Frequency of betel quid use	
3-5 times a day	04
6-8 times a day	05
More than eight times a day/always use	03

*Mahatma Gandhi National Rural Employment Guarantee Act

participants started betel quid practice at a young age, and they learned it from parents, relatives, or friends. For example, as a cultural practice, some parents used to provide betel leaf to their children when they chew betel quid. Often, they chew it in their mouth and pass to their children. The children get a taste of it in their early years, and eventually, they start liking it. Some parents gave betel leaf to their children to alleviate bad smell or toothache. Nevertheless, those exposed to betel leaf in their early years gradually developed betel quid chewing, which often included betel leaf, pieces of areca nut, slaked lime, and with or without chewing tobacco.

A 33-year-old Paniya woman said;

“All my family members were using betel quid when I was a child. My mother used to give betel leaf when I was young. She gave as it alleviates bad smell in the mouth.”

A 52-year-old Kattunaicker woman said;

“When I was a child, often I experienced toothache... my mother used to give betel leaf and tobacco, and it had helped to relieve pain.”

Nevertheless, not all parents gave betel leaf or betel quid to children, while parents using it regularly. A few participants recollected that they used to steal betel quid from home or get it from friends.

A 25-year-old Paniya woman said;

“I steal it from home as my parents won't give. It's not the case for all....many of my friends used to get it from parents easily. We used to share it among us. I keep my mouth very clean so that my parents won't recognise it.”

In both the instances given above, parental factors or their home environment influenced the betel quid use of children. Since the parents were using it regularly, betel quid was always available at home. However, children's betel quid practice was not perceived as a serious issue by parents, maybe because of the increased cultural acceptance in the community.

A few women, whose husbands were using betel quid regularly, had begun the habit soon after their marriage, at their husband's home. Initially, the women started this habit as a means of sharing their personal moments, but eventually, they continued to independent and regular use of betel quid. A few participants learned betel quid use from their colleagues at the workplace. They initiated it for curiosity; however, continue to use as they felt it helps for relieving tiredness/boredom of the work.

Betel quid intake

The ingredients of betel quid chewing included betel leaf, pieces of areca nut, slaked lime, and with or without chewing tobacco. The participants were chewing it daily for many years, which often affected their oral health and meagre income.

A sixty-year-old Paniya woman said;

“I have been using betel quid around 40 to 45 years continuously. I need it in my mouth always... Since I don't have strong teeth, I cannot chew it properly...I used to grind it now.”

A 35-year old Paniya woman said;

“I don't know how many times I use it in a day. I always keep enough betel quid when I go out.”

A 37-year-old Kattunaicker man who owns a petty shop in the Colony said;

“I have been chewing it at least 25 years, and I chew it four or five times a day...I am selling 300 to 350 rupees betel quid every day.”

Prolonged use of betel quid caused many consequences, including tooth cavities and stain, tooth decay and ulcers in the mouth. Participants were shy to show their mouth or found hiding mouth by their fingers during their conversation with us.

Majority of the tribes were seasonably employed or depend on forest product, through which they generated nominal income. Therefore, the amount spent on the substances severely affected their meagre income.

Betel quid dependency

Although many participants were aware of the consequences of betel quid on their health, they were unable to stop due to its dependence. Many participants experienced severe craving when they have attempted to stop.

A 55-year-old Paniya man said;

“It already caused damage to my teeth and mouth, and I know it can cause cancer...I wish to stop it, and I have already tried several times...but was unsuccessful and I couldn't stop it for more than a week. I cannot control taking it, especially after food.”

Even the loss of a healthy tooth, or awareness that it can cause harm, did not stop them from regular use, maybe due to craving. In some cases, participants stopped the use for two or three weeks but relapsed either at their workplace or home when they see others

using. However, one woman, stopped betel quid chewing one year during the gestation period, as per doctor's advice, while other women continued chewing during their gestation period.

The participants discussed different reasons for continuing betel quid chewing. Only a few respondents explicitly reported that they have an intense desire for it, while others give varying reasons for persisting in betel quid chewing.

They experienced many unpleasant feelings and emotions when they stopped betel quid, which were a heaviness in head, giddiness, decreased happiness, bad smell in the mouth, and experience of restlessness. One participant who stopped betel quid for a week behaved as if she were mad. One participant said that ‘if I don't chew it, I feel like I have forgotten something’. A Paniya woman experienced toothache when she stopped it, and she believed betel quid as medicine for her toothache, while a Paniya man said that betel quid chewing helps him to relieve tension and bad mood.

Thus, the above-illustrated experiences and dependence, poor motivation and lack of help-seeking behaviour may have contributed in persisting with betel quid use. None of the participants sought any help for the betel quid dependence. Many were aware of some of the health consequences and also recognised that their habit is difficult to stop, but they were unaware of psychiatric or psychological treatment options available for dependency.

Accessibility and availability

Betel quid was readily available in most of the petty shops located in tribal colonies. While they used to collect areca nut from the nearby areca nut plantations, they used to buy rest of

the ingredients of betel quid from petty shops. Most of these petty shops were owned by the tribes. Although many tribes did not have a regular income, it did not affect much on their betel quid use. Some of them earned money by selling areca nut; others borrowed it from the shops/ other users or in some cases; especially elderly tribes with no regular income got betel quid from their children or family members.

Discussion

We identified that betel quid chewing among tribes often initiated in young age, with influence from home environment, parental, peer and spouse related factors. Similarly, a study among Taiwan aboriginals reports that betel quid chewing initiates during the childhood and adolescent period and it associated with family and peer-related factors.¹⁹ Although not related to betel quid, the literature on substance abuse generally reports that parental substance abuse, child perception that parents approve of their substance use, level of parental education and socio-economic backwardness²⁰ and peer influence²¹ are associated with substance misuse.²⁰ A lion share of our study participants initiated betel quid below the age of 20 years, which regularly continued to date without any substantial remission. The early onset and regular use of betel quid are not uncommon.²² Early use of substances increases the risk of substance use disorders and poor outcome.^{23, 24} The parental belief that betel quid alleviate toothache or consider it for bad breath. This is also linked to their poor awareness, illiteracy and misconception. The belief that betel quid helps to cure physical ailments and mitigate dental problems⁹ or it helps in keeping awake, relieving boredom, suppressing thirst,

preventing the body from getting cold, and relieving stress are reported in literature.²⁵

Evidence suggests that betel quid chewing is more common among lesser-educated older men with comorbid smoking and drinking habits.²⁶ They are most likely to use alcohol and cigarettes together.^{8, 22} Most of our study participants were also illiterate, but the majority were not smoking or drinking. This could be because of the over-representation of females in our study sample, and alcohol and nicotine use are high among males;²⁷ while betel quid chewing is high among females, especially among indigenous tribes.⁷ Our study being qualitative, with a purposively selected small sample, there is limited scope for comparing these demographic findings.

The betel quid use of women during pregnancy is a great concern of public health as it is linked to a higher risk of adverse birth outcomes^{28, 29}, including a significantly lower male newborn rate, lower birth weight and reduced birth length.²⁸ Difficulties in quitting betel quid even during the pregnancy period, despite doctors' advice of possible risk, strongly indicate the severity of betel quid dependence.

The participants were aware that betel quid chewing cause cancer and other adverse effects, but was found helpless to stop due to craving and other unpleasant experiences. A previous study among betel quid users with oral cancer identified the difficulties of betel quid cessation despite the participants' awareness that betel quid can worsen their condition further.^{25 25}

This was a maiden attempt to understand the factors influencing betel quid use among tribes in Wayanad. However, the findings are to be viewed in the specific context of the

study. We selected only Paniya and Kattunaicker tribe and samples were over-represented by females.

Conclusion

The study findings revealed different pathways to betel quid use, nature of intake and impact, dependence, and access and availability of the betel quid in tribal dominant areas. Future studies to assess proper intervention for betel quid chewing can be undertaken.

Recommendations

As our study result indicated many features of betel quid dependency, community level screening for identifying the potential cases and provision of specialised betel quid cessation services are recommended. Parental and community awareness and education programmes are also important to reduce betel quid use at a young age.

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Conflict of Interest

There are no conflicts of interest.

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