

RESEARCH ARTICLE

A Critical Ethnographic Study on Betel Quid Dependence Among Young Men in Mandalay, Myanmar

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Abstract: Betel quid is a carcinogenic psychoactive preparation, often containing tobacco, which is widely consumed in Myanmar. Studies on betel quid dependence have illuminated betel quid chewers' demographics and reasons for chewing, but dependence formation is not fully understood. This study aims to describe the social context, patterns of use, and subjective experiences of betel quid chewing among novice and dependent chewers, and to analyze the hidden structural factors that contribute to the emergence of betel quid dependence. Data on the subjective and objective aspects of betel quid chewing were collected through a five-month ethnographic study in Mandalay, Myanmar. Betel quid chewers were recruited for in-depth interviews and focus group discussions. The data were analyzed within a critical medical anthropology framework. Male betel quid chewers begin to chew out of curiosity and social pressure. They believe that chewing boosts their sexual attractiveness and increases their negotiation power with peers and family. Dependence develops when chewers continue chewing beyond the initiation stage. Chewing is used as a social lubricant that enhances social gatherings and work activities. Weak law enforcement and the need for employment among the unskilled rural population encourage the emergence of betel quid economies. Betel quid is used as a drug food to facilitate hard work and to self-medicate suffering caused by exploitative socioeconomic conditions. Betel quid chewing becomes indispensable as a part of the chewer's habitus. The economic conditions of chewers need to be improved and community-based programs initiated to discourage early initiation of betel quid chewing.

Keywords: Betel quid, critical medical anthropology, ethnography, Myanmar, smokeless tobacco, young men

The proportion of the population using smokeless tobacco (SLT) in Myanmar is one of the highest among low- and middle-income countries (Ayo-Yusuf & Burns, 2012) and the highest among Southeast Asian countries (Kyaing et al., 2012). In 2011, 29.6% of the adult (age 15–64 years) population, 51.4% of adult men, and 9.8% of 13–15-year-olds were self-identified as SLT users (World Health Organization [WHO], 2013).

Chewing betel quid containing tobacco is the most common way to consume SLT in Myanmar. In one study, over 90% of SLT users consumed it through betel quids (Kyaing et al., 2012). Novice users usually chew betel quid without tobacco, but most chewers later begin to add tobacco to their quids (Kyaing et al., 2012). SLT use has steadily risen in Myanmar (Ministry of Health, Myanmar, 2009). In 2001, chewing betel quid with tobacco accounted for 32.8% of all tobacco use in Myanmar, but in 2007, its share had risen to 45.3% (Ministry of Health, Myanmar, 2009).

Chewing betel quid has health risks, such as cancer and precancerous lesions in the oral cavity (Reichart & Way, 2006; Trivedy, Craig, & Warnakulasuriya, 2002; WHO/ International Agency for Research on Cancer [IARC], 2004) and various systemic diseases (Kaushal et al., 2010; Liu et al., 2009; Senn et al., 2009; Tseng, 2010). Chewing betel quid without tobacco also causes cancer because of another standard ingredient, the areca nut, is itself carcinogenic (Trivedy et al., 2002; WHO/IARC, 2004). Added tobacco may increase these health risks, especially because the types of SLT used in low- and middle-income countries (such as Myanmar) are of relatively high toxicity (Ayo-Yusuf & Burns, 2012). The rapidly increasing popularity of betel quid and its health risks have made betel quid chewing an important health issue in Myanmar (Ministry of Health, Myanmar, 2009).

Myanmar spends less than one million US dollars a year and has only three full-time staff on its national tobacco prevention program (WHO, 2013). Overall, Myanmar's per capita health expenditure in 2014 was less than 30% of the regional average (WHO, 2014). These relatively low inputs to SLT/betel quid use prevention may not be sufficient to stem the trend of increasing use.

Other factors impeding SLT/betel quid control

in Myanmar include insufficient law enforcement, the perception of SLT/betel quid products as safer than smoking, the unfeasibility of mandating health warnings on betel quids (typically sold freshly made and unpackaged), and the lack of a specific SLT component in the national tobacco control program (Kyaing et al., 2012; Ministry of Health, Myanmar, 2009). The tax on SLT is much lower than on cigarettes, making SLT especially attractive to low-income groups (Kyaing et al., 2005). The increased use of SLT and areca nut in developing countries, including Myanmar, has also been linked to aggressive marketing of SLT products (Ayo-Yusuf & Burns, 2012) and the availability of industrially manufactured SLT/areca nut products (Gupta & Ray, 2004).

Furthermore, betel quid chewing is a long-lasting and relatively accepted sociocultural practice in mainland Southeast Asia, including Myanmar (Strickland, 2002; Zumbroich, 2008). Sharing betel quids is viewed as promoting trust and reinforcing social relationships (Auluck, Hislop, Poh, Zhang, & Rosin, 2009; Benegal, Rajkumar, & Muralidharan, 2008). Offering betel quid is considered a key sign of hospitality and refusing the gift can be considered disrespectful in traditional Myanmar culture (Kyaing et al., 2005).

The role of neurochemistry and genetics in the formation of addictions, in general, are increasingly understood (Agrawal et al., 2012). However, it is not clear why betel quid is increasingly popular in Myanmar in particular, and what sociocultural factors contribute to betel quid dependence.

Many previous studies on betel quid use have used a quantitative approach (e.g., Benegal et al., 2008; Guo et al., 2013; Heck et al., 2012; Shetty & Johnson, 1999). Though helpful in elucidating aspects of betel quid chewing such as dependence formation or knowledge, beliefs, and attitudes on the individual level, such studies cannot reveal the social structures that perpetuate drug use, as Hardon and Hymans (2014) have argued. Likewise, though it has been shown that betel quid chewers in the region persist in chewing even under extreme poverty, the reasons for this remain unclear (Singh, Washburn, Yel, Kheam, & Job, 2013).

The critical medical anthropology (CMA) model [1] postulates that health problems, including

betel quid dependence, result from particular social, political, and economic (i.e., structural) arrangements and that individuals make health choices based on options shaped by social structures (Baer, Singer, & Susser, 2003). Other theoretical frameworks such as psychological theory or cultural models limit the explanation of the cause of a person's substance addiction from individual factors, that is, psychopathology, learned behavior, and cultural beliefs that ignore other social contextual factors. Informed by the CMA framework, we viewed betel quid dependence as an outcome of the interplay of structural elements and subjective experiences. Our approach was further informed by the principles of ethnography (e.g., Hardon & Hymans, 2014); our research framework can be categorized as interpretive oriented, similar to previous studies on tobacco addiction conducted from an interpretive anthropological perspective (Daley et al., 2006; Lende, 2005).

The objectives of this article are to provide a thick description of the social context, examine patterns and subjective experiences of betel quid chewing among both novice and dependent chewers, and shed light on the structural factors that contribute to the emergence of betel quid dependence.

Methods

This qualitative, ethnographic study, informed by CMA perspectives, is based on the first author's fieldwork in Mandalay, Myanmar, over a period of six months in July–December 2013. The first author is Burmese and grew up in Mandalay, enabling her to conduct an ethnographic inquiry as a cultural insider. Primary data were collected through four types of qualitative methods: key informant interviews (KIIs), in-depth interviews (IDIs), focus group discussions (FGDs), and participant observation. These primary data were supplemented with secondary data gleaned from the literature review.

Study Site

The city of Mandalay was selected as the study site primarily because roughly 95% of tobacco users in Mandalay consume SLT, which is the highest percentage in Myanmar (Kyaing et al., 2005). More

specifically, the data were collected in Chan Aye Tha Zan district of the city. The feasibility of conducting an ethnographic fieldwork was also a consideration in choosing the study site. Mandalay offered significant opportunities for observing betel quid chewing activities in public places, given its large betel quid chewing population. The observation was conducted in both public spaces (e.g., streets, parks, and other kinds of physical social spaces with unrestricted access) and in private spaces (e.g., private households and workplaces). It was also relatively straightforward for the first author to interact with betel quid chewers in the city given that it was her home town.

Data Collection

During the fieldwork, the first author used a combination of four techniques of data collection to triangulate the resulting raw data. Firstly, participant observation and KIIs helped to provide an overall picture of betel quid-related practices in Mandalay, including structural and historical aspects. The observation focused on the prevalence of betel quid chewing, betel quid stalls, the availability and access to betel quid, and chewing practices in the community. After this initial exploration, the first author arranged two FGDs were conducted to preliminarily document the beliefs and shared social practices related to betel quid by lower-skilled workers and lower-middle class men. Following the FGDs, the first author conducted 10 IDIs on selected individuals. The data is saturated after 10 IDIs. The IDIs provided detailed personal accounts of individual experiences and perceptions of the interviewed chewers' own betel quid consumption.

For each IDI and KII, the first author spent at least three hours interviewing each person, spending one to two hours in the first interview and two to three hours in follow-up interviews. FGDs lasted from two to three hours. Given that each FGD had five participants, this meant 20-40 minutes per participant. In other words, interview/FGD audio recordings totaled 48 hours, comprising 30 hours of IDI recordings, 12 hours of KII recordings, and six hours of FGD recordings. The time spent on participant observation totaled approximately 140 hours. This extensive fieldwork using multiple methods helped ensure that data saturation was reached and that data triangulation became feasible.

Trust and rapport were built with participants before IDIs or FGDs were commenced. All participants received a token incentive of roughly five USD in Burmese kyat to thank them for their participation.

Participants and Recruitment Strategies

Altogether, 24 participants provided primary data for the analysis. The first author first identified four key informants (two betel quid vendors, one high school, and one university lecturer) through her social networks. They were selected based on their knowledge of chewing activities and their ability to facilitate further participant recruitment. The researcher then asked the four key informants to identify potential participants for 10 IDIs and two FGDs with five participants each.

The participants in the IDIs and FGDs had to be male, under 40 years of age, and self-report that they chewed betel quid at least three times a week and had continued to do so for at least 18 months.

Five of the IDIs were conducted with men in lower-skilled occupations (age range 18–25 years), and another five among lower-middle class men (age range 26–35 years). These two different groups were selected to gain information from two groups of men that seemed particularly likely to use betel quid.

Data Analysis

Data processing and data analysis were done alongside data collection, so as to inform further data collection. After each data collection session (participant observation, KII, IDI, or FGD) had been completed, the information gained was written up as field notes. KIIs, IDIs, and FGDs were also transcribed and the resulting transcripts added to the field notes, as were relevant secondary data. The expanded data were coded using open coding. Data entries were checked for their validity and consistency with the data collected earlier, and missing data were filled up in the following sessions. The open coding process helped to create working hypotheses to guide further discussions (Strauss, 1987). The qualitative data analysis software Nvivo 10 was used to facilitate this process. At the last stage, content analysis was conducted, and the critical medical anthropology framework was used to inform

data interpretation.

Ethical Considerations

Data collection took place after ethical approval had been obtained from the institutional research ethics board OF Mahidol University, following the Declaration of Helsinki. Before the IDIs and FGDs, the first author obtained verbal consent from each potential participant to participate in the study, after informing them and explaining why they had been asked to participate and checking their understanding about the study. All participants were assured that their participation was fully voluntary, that they could stop participating at any time without suffering any adverse consequences, that their privacy would be respected, and that their data would be treated as confidential.

Results

Social Context of Betel Quid Use and Use Patterns Among Novice Chewers

Most participants had begun chewing betel quid at an early age. Some had been only six years old. The first experience often involved a senior family member giving them a part of a pre-chewed betel quid. This would happen as casually as sharing food, and signify love and taking care of the younger family member. A family member might also give them a betel quid to help them stay awake when needed. Others were exposed to betel quid stalls when sent to buy betel quid for senior chewers in their family or workplace. Thus, the participants grew up in a culture in which betel quid chewing was a part of everyday life. The accounts of the participants reflected that diverse situations and contexts were involved in first use. Few novice users chewed alone. Social settings of chewing included the daily commute, shared mealtimes, school breaks, and peer group gatherings.

Novice chewers usually chewed once or twice a day, a quid or two each time, and typically chewed the same type of betel quid as others in their group. Such experimental chewing did not encourage young men to spend much time chewing. Rather, chewing and spitting followed each other in rapid sequence. Most participants preferred to add traditional dried

tobacco, but some switched to other types of tobacco, such as imported, industrially manufactured types that were understood to be highly hazardous to health or locally-made alcohol-soaked tobacco.

Subjective Experiences of Betel Quid Chewing Among Novice Users

Curiosity was the primary motive that had inspired almost all participants to try betel quid chewing. They wondered about the taste, the effects, and the benefits. They thought that as young men they should try out everything. Their curiosity was heightened when they repeatedly saw others chew betel, and this curiosity outweighed any concerns they might have had. One such concern could have been the dizziness and other severe symptoms (known as *khun muu dar*) every participant said had accompanied their first betel quid chewing experience. Some had been unable to open their eyes. Some had felt a heavy sensation in their head, vertigo, or drowsiness. Some said they had felt the wind coming out of their ears. Some had felt hot, experienced flashes, palpitations, tremors, or a lack of energy in their limbs, together with sweating and vomiting. Some had become so dizzy they had needed to lie down on the ground even if it was covered with garbage.

These unpleasant experiences did not discourage chewing. They ate jaggery (toddy palm candy) or other sweets or drank plenty of water to alleviate the symptoms. Many participants followed the advice from others to continue chewing so they would develop tolerance to betel quid:

I'd heard that chewing betel quid was not good before I tried it. . . . Although I felt dizzy, I did not give up because I had the mindset that if other people can chew, why not me? So, I tried it repeatedly. (Ko Theik, 22, personal communication, July 25, 2013)

Chewing betel quid was not merely acceptable, but even necessary to attain approval from peer groups (e.g., at the workplace) and to be treated as an adult by their family members, much like smoking or drinking. For novice chewers, chewing signified participation in peer groups, unity, strength, trendiness, courage,

and power competition with non-chewers. Another key motivation was the perception that chewing and spitting betel juice looked sexually attractive to young women.

Betel Quid Use Among Dependent Chewers

Having taken up betel quid chewing, novice users gradually developed dependence. The frequency of chewing and the quantities chewed increased until they were chewing throughout the day. Chewing also became an individual practice, used to while away time or to relax. However, it also still functioned as a lubricant for social situations: "If you introduce someone to me, we'll feel strange talking to each other, but offering a betel quid to that person makes it easier. That represents the introduction of friendship." (Ko Too, 31, personal communication, July 18, 2013)

Dependent users also tended to change the type and increase the quantity of tobacco added to each quid, making the cost of chewing substantial. When chewing, the majority of dependent participants still spat out betel juice, like novice users would do, but some would now only spit once or twice per quid, believing this would be enough to clear out the toxins in the lime and tobacco, and the rest would be safe to swallow. This change helped to increase the cost-effectiveness of the practice in some participants' view. Chewing habits among dependent users were influenced by perceptions about various SLT products. For instance, chewing newly available, juicy alcohol-soaked tobacco was perceived as modern, but it increased the cost of chewing as this kind of tobacco made it necessary to spit out betel juice more often.

Subjective Experiences of Betel Quid Chewing Among Dependent Users

Dependent users stated that they gained multiple benefits from chewing. It helped to eliminate a sour taste in their mouth, keep them awake, increase their concentration, alleviate their stress, reduce their anger, and keep them calm. It made them feel satisfied, gave them confidence, relieved their boredom, and provided them with the energy needed for their hard work.

Dependent users all reported withdrawal symptoms when they could not chew, particularly after having a meal or drinking sweet tea. Such symptoms included

feeling irritated and short-tempered even when encountering minor problems, which could make them burst out with anger at others. They might perceive everything in a negative light. They might feel empty or out of control, not alert, and unable to concentrate. Some reported sweating and tremors while working, feeling lethargic, heavy and lazy, or having no interest in their work.

Other problems associated with betel quid chewing included lack of appetite and a sticky and numb sensation in their fingers. Some had experienced difficulties speaking as a result of a sticky sensation in their throat. All chewers had had abrasions in the inside lining of their cheeks at some point. All believed that continuous chewing of hard areca nut was damaging to their teeth, and some had actually lost teeth. All participants acknowledged the high monetary cost of heavy betel quid consumption and that being considered a person with a bad habit were major socioeconomic downsides of the practice. However, the benefits of chewing were perceived to outweigh these considerations. The betel quid was seen as an antidote (*hsey swan kaung the lat*) to their stresses and sufferings, which made it indispensable:

Now I feel that I can't be without a betel quid, particularly when I am working. . . . For example, I must put a quid in my mouth before I draft a design on paper . . . I cannot draw if I don't chew betel. I don't care about anything . . . I feel that betel is such an essential thing for me. (Ko Too, 31, personal communication, July 18, 2013)

Structural Factors Influencing Betel Quid Chewing

In Myanmar, betel quid chewing is regulated as a form of SLT consumption, which is covered by the Control of Smoking and Consumption of Tobacco Product Law (2006), if the terms of this law are interpreted in their broad definition (Kyaing et al., 2012, p. 350). Further regulations issued in 2011 explicitly banned the selling of SLT in government compounds and chewing tobacco in public places (Kyaing et al., 2012). Law enforcement and public compliance with these tobacco control measures have remained weak (Kyaing et al., 2012; Sein, Swe, Toe, Zaw, & Sein, 2014).

The widespread legal and illegal importation of SLT (Kyaing et al., 2012) stimulate the betel quid business. Low taxation, high demand, and the availability of diverse tobacco products (Kyaing et al., 2005) attract more people to the business. Betel quids are very cheap, with the typical price of 3–4 quids being as low as 0.1 USD (Sein et al., 2014). Therefore, betel quid stalls are prevalent throughout Mandalay. Based on the first author's observation, a quarter might have one to five, particularly near workplaces and in crowded areas, such as construction sites, bus terminals, railway stations, taxi stands, jetties, markets, pagodas, hospitals, and in front of tea shops, restaurants, karaoke lounges, beer stations, and nightclubs. One participant noted, "Having a betel stall around is normal; rather, it is strange if there are no betel stalls in an area." Stalls are usually operated by a man. They commonly enjoy the shade of a big tree or an umbrella, and have a bench behind the stall. This provides a friendly, accessible, and attractive social space; the atmosphere makes betel quid the refreshment of choice particularly for men of low socioeconomic status. Spitting betel juice is not much disapproved of, which provides chewers with a sense of freedom to continue chewing.

Myanmar is transitioning towards a market-oriented economic system, with elite groups dominating the emerging market. The economic hardship suffered by many participants had led them to quit school and enter the workforce with few educational qualifications. Their jobs usually have these characteristics: low salaries, high workloads, alienation, and low social status. Such work conditions breed stress, boredom, and low self-esteem. Some participants ran small businesses, but they also suffered economic hardship and uncertainty, likewise leaving them stressed and dissatisfied. Betel quid chewing offered a way for them to relieve their social suffering.

Discussion

This CMA-informed, ethnographic study investigated the emergence and maintenance of betel quid dependence among men in Mandalay, Myanmar, focusing on the subjective and structural aspects of chewing. Chewing was a culturally acceptable or even an expected practice, into which the participants had been socialized by peers or family members. They

later became dependent as it formed an antidote to their stress and suffering caused by exploitative work conditions. It also lubricated their social gatherings and increased their negotiation power with peers and family members. Below we discuss betel quid chewing as a form of addictive self-medication to alleviate social suffering, the betel quid as a drug food, and betel quid chewing as a socio-culturally formed habitus. We also address the limitations of the study.

Betel Quid Chewing as Addictive Self-Medication to Alleviate Social Suffering

Self-medication means alleviating one's suffering by self-administering various substances without medical supervision (Marcum, 2008). Betel quid has antidepressant effects (WHO/IARC, 2004) but is also addictive. One study found that 40.8% of those chewing betel quid with areca only (no tobacco) matched ICD-10 criteria for dependence, whereas 79.5% of those who chewed betel quid with tobacco matched the same criteria (Benegal et al., 2008). Various psychoactive substances (e.g., methamphetamine, alcohol, and heroin) are consumed in Myanmar, but many prefer the betel quid, because it has relatively high sociocultural acceptance and is comparatively cheap. Thus, it can be used to self-medicate anxiety and stress even in work settings, where openly using illicit substances or drinking alcohol would not be tolerated.

Many participants expressed physical fatigue and psychological distress as reasons for chewing betel quid. These resulted from their exploitative employment conditions, low salaries, heavy workloads, and alienation. Individuals in such conditions are subject to structural violence, which Galtung (1975, cited in Quesada, Hart, & Bourgois, 2011, p.340) defined as "indirect violence built into repressive social orders creating enormous differences between potential and actual human self-realization." Considering the political-economic inequities of Myanmar, individuals with lesser education and fewer economic opportunities are clearly more vulnerable to structural violence. As Quesada et al. (2011, p.340) have summarized, "Economically exploited and politically subordinated individuals . . . often internalize their externally generated depreciated status in a complex and poorly understood process of embodiment that shapes their

behaviors, practices, and self-conceptions." Through this process, "the everyday violence of imposed scarcity and insecurity is understood as natural and deserved" (Quesada et al., 2011, p. 340) and the suffering caused by structural violence is managed through self-medication (Bourdieu, 2000).

Betel Quid as a Drug Food

In the region, betel quid chewing is viewed as a common practice, like drinking tea or coffee, and as a drug food providing an inexpensive way to increase productivity and contain pain (Nichter, Bhat, Blank, Balster, & Nichter, 2010). Chewing betel quid reduces physical fatigue and improves concentration. These effects improve the performance of certain work tasks. The emergence of drug food reflects the need to improve economic productivity within a market economy. Studies about the demographics of betel quid chewing in the region (Gupta & Warnakulasuriya, 2002; Huang & Liou, 2005; Liu et al., 2009; Yen, Pan, & Chen, 2001) indicate a high prevalence of betel quid chewing in unskilled occupations (e.g., drivers and laborers). In the short run, it is economically efficient for them to consume drug food like betel quid to increase their work efficiency through temporary relief of suffering and improved mood (Baer et al., 2003).

The demand for drug food also encourages the development of betel quid economies. The ethnographic observation conducted in this study indicates betel quid is available throughout Mandalay. The presence of this sophisticated betel quid economy illustrates the limited success of state-initiated efforts to control SLT or betel quid consumption in Myanmar through bans or educational campaigns. It also highlights the limited employment prospects of unskilled laborers in Mandalay, whether they are involved in the business as vendors or consumers.

Betel Quid Chewing as a Socio-Culturally Formed Habitus

The participants described their early exposure experiences (e.g., purchasing betel quid for other family members or ritual use in household ceremonies). The practice is more likely to take place once it becomes a part of domestic life (Gupta & Ray, 2004; Nichter

et al., 2010). Betel quid use depends on its cultural acceptance (Chandra, Carey, Carey, & Jairam, 2003), and we concur with previous studies (e.g., Kyaing et al., 2012) that betel quid chewing is currently a part of the culture of Myanmar. Our findings add that not only is chewing culturally accepted; it is an important social lubricant in community gatherings. Our findings also indicate that for a male chewer, chewing signifies that he is to be treated as an adult, which improves his negotiation power with family members and peers. In this sense, chewing betel quid is not only accepted, but expected. The practice is also thought to make a man more sexually attractive, again offering a distinct social benefit. These benefits are contingent on cultural values on betel quid chewing, maturity, masculinity, and sexual attractiveness.

A betel quid chewer's habitus (Bourdieu, 1995) is constructed through a personal embodiment of daily practices of engaging with the betel quid—obtaining it, preparing it, sharing it, and chewing it. Once formed, this habitus then conditions the chewer's thoughts, feelings, and behaviors related to betel quid chewing, like an "alcoholic habitus" does for a heavy drinker (Halpern, Maria, & Leite, 2011). If betel quid becomes indispensable to the habitus of the chewer, it is not difficult to see why chewers are dependent on the quid not just physically, but also psychologically, socially, and culturally.

Limitations

The study's main limitation was its small sample of low- and middle-income male participants in Mandalay. These groups were chosen for the study because previous research (Kyaing et al., 2005) indicated that these groups comprised the highest proportion of betel quid chewers in Myanmar. However, other demographic groups in Myanmar also have betel quid chewers and future studies might investigate if the chewing practices and motivations in these groups differ from those described in this study.

Conclusion

This ethnographic study on betel quid dependence among men in Mandalay, Myanmar, describes the subjective aspects of betel quid dependence and

the sociopolitical factors that encourage betel quid chewing. Firstly, it is used as self-medication for stress and suffering caused by exploitative employment conditions. Secondly, it is used as a drug food to increase productivity in unskilled occupations. Thirdly, betel quid chewing becomes embodied in a person's habitus, which then guides the person's thoughts, feelings, and actions related to betel quid chewing. Finally, betel quid chewing is culturally normalized more than the consumption of other substances. To reduce betel quid dependence, enhancing educational opportunity for Myanmar children as well as poverty alleviation and increasing economic opportunity for both rural and urban poor people is recommended. School and community-based programs related to gender and men's health are needed to raise awareness among Myanmar adolescents and their parents of the risks of betel quid. Such programs and messages are required to address existing social values and norms that lead to early initiation and the maintenance of the practice among men in Myanmar.

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