

### **Approaches for helping betel quid/*Areca* and gutkha users**

Gutkha/Nicotine Support group via WhatsApp.

"WhatsApp" as the platform for the group sharing via text or audio recording sharing. Skype is being used for virtual face to face meetings. They are following a 12step meeting format and named it Gutka/Nicotine Anonymous. Mostly in Hindi and a few in English. It started with 3 people and they each just ended up asking others, mostly members from their own face to face AA and NA meetings who had the desire to quit or maintain abstinence if they were interested in joining. I think the ability to relate to each other helped to trust in joining the group too. BQ and Gutka are part of everyday life, I think it is a culturally sensitive topic for some people too and they feel more comfortable sharing with those who are going through similar situations. Working with a licensed counselor and building a rapport along with pharmaceutical aids and long term maintenance through a social support group like a 12step meeting could help with the abstinence, for some.

My husband he says he enjoys the honesty of going to his AA meeting and talking about different alcohols and people understanding. Whereas with BQ/Gutka, there's nothing out there for anyone to understand what he is talking about even at a Nicotine Anonymous meeting here.  
>Parul and Chirag Patel

I have a methodology of intervention which has demonstrated in our previous study that it can make a change. I think I can help to design an effective cessation for this group.  
> Mira B Aghi

SAHI is working only in the New York city. We just checked MSKCC website – it says – “The South Asian Health Initiative (SAHI) is working to increase awareness and treatment of the most common health problems affecting the South Asian immigrant community in New York City, ..”

<https://www.mskcc.org/departments/psychiatry-behavioral-sciences/immigrant-health-disparities-service/working-diverse-communities/south-asian-health-initiative>  
> Mira B Aghi

<https://blog.priceplow.com/betel-nut-arecoline?>

The website above refers to arecoline as "betel nut extract or areca nut extract". This is really quite inaccurate, just as it would be inaccurate to call nicotine "tobacco extract". Also, we know that nicotine is addictive, but really there is no proof that arecoline alone is addictive. Taking a lesson from nicotine research, it would be useful to know if animals would learn to self-administer arecoline without any other associated reward.

Both tobacco and areca have many component molecules, and betel quid, of course, is even more complicated than areca due to all the components associated with the betel leaf and the various flavorants. Is it really possible to even identify "the taste of betel nut/quid"? If an answer were even possible, it would probably be a different answer in different parts of the areca-using world based on how quids are prepared.

Another issue is separating out drug-associated cues from drug discrimination per se. This can be important for the development of cessation therapies, in regard to what people might accept as a substitute for an addictive drug that is taken in a way known to present a health risk. Some of this is related to the presence of both conditioned and unconditioned stimuli in drug-taking behavior. Conditioned stimuli are things that are associated with the drug-taking

experience but are not themselves part of the drug. Replacements that rely only on the conditioned cues are generally inadequate substitutes, especially for a truly addicted individual. No alcoholic will be cured of their addiction by drinking non-alcoholic beer, although more casual users may accept occasional NA beers as a way to decrease alcohol consumption.

For a BQ user, the act of chewing is associated with the drug experience but chewing gum would not likely be an adequate substitute unless perhaps the gum contained arecoline (assuming that arecoline is the real addictive element). Even so, arecoline gum without the facilitating effect of lime, would not be a good drug delivery mechanism, and someone who also associates the other flavors of the quid with the experience would probably not appreciate a gum with just arecoline.

The actual manner in which the drug is delivered is very important. Muscarinic acetylcholine receptors, the primary targets of arecoline, can tolerate prolonged stimulation better than nicotinic receptors can. This is why nicotine gums and patches, while they can help manage nicotine dependence and withdrawal, are not able to produce the same rewarding effects as cigarettes. Naive individuals do not seek out nicotine patches and get hooked on them; however, e-cigarettes, which do provide rapid transient nicotine delivery to the brain, are likely to become very addicting.

So, what can be done for the BQ users? Firstly we really need to separate out the addictive and carcinogenic elements and work from there. As you know, I do think that nicotinic activity of areca compounds is at the root of the dependence, but the muscarinic activity is almost certainly key to the short-term reinforcing effects and may have to be addressed somehow with any cessation therapy.

>Roger Papke

They do not have 12steps for betel nut or related addictions. People can use the 12steps model for the addiction to gutka and betel nut by following the program by replacing alcohol/drugs with gutka/betel nut whatever.

However they do have active AA and NA groups in India.

I am looking forward to when we can get together with Dr. Aghi regarding cessation too.

Parul Patel

12 step programs have a scattered record of success. I can't recall whether they have been evaluated by scientific methods and random assignment in head to head trials, and long-term follow-up. They work for the people who have a belief system that is congruent with the program (belief in a higher power and ongoing self-endorsement of addiction). Most smokers don't want to participate in such ongoing, long-term programs, unlike the subset of alcoholics who benefit from lifelong program participation. Smokers want to quit and get away from considering themselves addicts, for the most part. I don't know what the parallel for areca nut or guts would be.

There are behavioral programs with established records of success. One of the as yet unexplored areas of cessation treatment for gutka and areca nut is application of pharmacologic treatments. That would be a big help, if such were developed and evaluated. It is more difficult in India where the majority of users are low income and could not afford pharma treatments.

Ellen

Hi all,

FYI, my colleagues and I currently are administering a randomized betel nut cessation trial in Guam and Saipan. It's an intensive cognitive-behavioral program (called BENIT), modeled after smoking cessation programs, but with changes owing to the differences between smoking and betel nut chewing. We've recruited 118 participants so far. Thus far, it's going pretty well. Most participants appreciate the help, and anecdotally, a good percentage are quitting, at least in the short term. And we've discussed (with Roger and others) the possibility of extending the research to include pharmacologic aids, but we haven't done that yet.

Regards,

Tad