

Amid COVID-19, Tobacco: A Threat To All Life

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Abstract: *The whole attempt to reduce tar and nicotine for humans by using cigarette butts (CBs) ultimately ends up in the Ocean. Consumption of Tobacco not only harms a human being, but cigarette butts (CBs) pollute marine life too. The only possible solution is if humans stop smoking. It is almost impossible for a tobacco-addicted person to stop smoking without psychological or medical intervention. COVID-19 brought additional challenges for psychological intervention. One to One counselling is a challenge because of the possible spread of infection. In India, both men and women have the additional challenge of social stigma if they access psychological intervention, Specially it is more for women. Amid COVID-19, within Indian social conditions, to stop the marine pollution, environmental pollution, and health hazards due to tobacco addiction, there needs an intervention that can be self-administered without the presence of a Psychologist. Counsellors expressed that women do not come for therapy because of the stigma and embarrassment they face (Colley, A. J. 2016). With this growing number of tobacco addiction, there is a requirement for a de-addiction treatment for the social scenario of India. With the existing social scenario of India, COVID-19 has thrown an additional challenge for face-to-face counselling. There is a necessity for decision-making training, thinking skill training, and mindfulness training in today's society. The training material could be self-instructed material, like Reflective Journal, reading material, Audio, and Video CD or recorded files.*

Keywords: COVID-19, Cigarette butts (CBs), Ocean

1. INTRODUCTION

Cigarette butts (CBs) are made of cellulose acetate (C₁₀H₁₆O₈), a synthetic polymer. Once thrown into the surroundings, they release the polycarbonate and the nicotine, toxic substances that they have subsumed. The relationship between marine life and cigarettes is primarily determined by the number of cigarette butts (CBs) that ends up in the Ocean; thus, the toxic chemical, microplastics, and other toxic particles get absorbed in the Ocean's water. The nanoparticles directly or indirectly are consumed by humans in the form of salt consumption or via seafood through the food chain. This concerns the health of both human and marine life as well as the total ecosystem.

One of the most common items discovered in most natural aquatic eco-space cleaning is cigarette butts (CBs). While we are aware of the detrimental health effects cigarettes have on

the human body, we have no idea about the full extent of their impact on the oceans. Furthermore, microplastics and microfibres expose aquatic eco space to toxic chemicals. The biodegradable cigarette butts could be one possible solution; however, the nicotine and other chemical substances will be there.

Tobacco cultivation, manufacturing, sales, and consumption are wreaking havoc on our ecosystem. Tobacco Plantation contributes to deforestation and the overuse of toxic materials. The waste we produce damages our environment significantly and is made up of non-recyclable materials, and harmful contaminants like cigarette butts are entirely unrecoverable. With the rise in global cigarette smoking in the late twentieth and early twenty-first centuries, the market for tobacco leaf rose exponentially. This has resulted in a consequently rise in the use of land associated with a project for Tobacco.

Cigarette pollutes the aquatic eco-space; it also pollutes the air too; further research has revealed that Environmental Tobacco Smoke (ETS) is a cause of pollution smoke; the emission factor is 21 VOCs (Volatile Organic Compounds) (Daisey et al., 1998). Air pollution is linked to a decline in cognitive function in children and the elderly (Clifford et al., 2016).

Counsellors expressed that women do not come for therapy because of the stigma and embarrassment they face (Colley, A. J. 2016). With this growing number of tobacco addiction, there is a requirement for de-addiction treatment within the context of the social scenario of India. According to Indian media sources, very few women receive therapy for addictions. Due to the lack of isolated treatment for women and men, it is nearly impossible that females will be entangled with de-addiction centres (Deb, 2015). With the existing social scenario of India, COVID-19, thrown an additional challenge for face-to-face counselling. There is a necessity for decision-making training, thinking skill training, and mindfulness training in today's society. The training material could be self-instructed material, like Reflective Journal, reading material, Audio, and Video CD or recorded files.

2. METHODOLOGY:

Systematic Literature review

3. CIGARETTE BUTT (CBs) WASTE

Cigarette butts (CBs) are made of cellulose acetate ($C_{10}H_{16}O_8$), a synthetic polymer. Once thrown into the surroundings, they release the polycarbonate and the nicotine, toxic substances that they have subsumed. Cigarette butts hamper plant growth, and they also frequently enter wetlands and, ultimately, oceans. Every year, approximately 4.5 trillion cigarettes are thrown away worldwide; toxic substances from cigarette butts enter into the water, which can persist for up to ten years (Root, T. 2019, August 9).

Reference	Location	Total Litter	Classification	Other
Root, T. (2019, August 9).	Global	4.5 Trillion	Cigarettes	4.5 trillion cigarettes are thrown away worldwide; toxic substances 1 from cigarette butts into the water, which

				can persist for up to ten years
Choy et al., 2019 Nature	Atlantic and Pacific Oceans	The highest concentration of ocean microplastics was between 200 and 600 m	Microplastics	Researchers have found that microplastics in Antarctica contaminate the aquatic ecosystem (Kelly et al., 2020 Marine Pollution Bulletin). It was found that microplastics were hovering on the seafloor and in the stomachs of the animals living there
Hernandez et al., 2019 Environmental Science & Technology			Microplastics	Many of the food and beverage products we consume contain microplastics and perhaps even tinier nano plastics. Researchers discovered that ordinary plastic teabags could discharge over 11 billion microplastic and 3 billion nano plastic particles into your beverage.
Wright et al., 2020 Environment International)	London	575 to 1008 microplastics/m ² /d	Microplastics	Research in London, UK, identified microplastics in the city's air. According to the study, cities may be a source of plastic contamination because airborne microplastics enter soil and water, such as the Ocean, via snow and rain.
Kolomijeca et al., 2020 Environmental Science & Technology)	USA		Microplastics	According to researchers, rubber residue from vehicle tires is one of the sources of microplastics in the ocean areas off California, USA

				(Sutton et al., 2019 San Francisco Estuary Institute). Another study discovered that toxic substances in these tire residues could reduce the survival rate of fish hatchlings and end up causing fetus abnormalities.
Tobacco Atlas	Global	2.5 million tonnes	Manufacturing waste	Manufacturing waste, much of which contains nicotine and other dangerous chemicals
Schür et al., 2020 Environmental Pollution	Global	2,000 microplastic particles per ml of water	Microplastic particles	Access to 2,000 microplastic nanoparticles per ml of water lead to the extinction of marine organisms
Redondo-Hasselerharm et al., 2020 Science Advances	Sinderhoeve		Microplastic particles	Microplastics' implications on biodiversity were investigated by evaluating how organisms that live in the soil at the surface of the lake, ponds, and canals respond to different concentrations of microplastics in their habitat. The researchers discovered that increased concentrations of microplastics had an effect on ecosystems in soil
Gove et al., 2019 Proceedings of the National Academy of Sciences	Hawai		Microplastics	Microplastics were found to be seven times more than some of the living organisms of the Ocean. The marine organism consumes these plastics and then passes them on to the

				food chain.
Lavers et al., 2020 Journal of Hazardous Materials	Henderson Island and the Cocos (Keeling) Islands	562,352 bottles	Plastic	Researchers found that huge bits of plastic on beaches worldwide are trapping small animals like hermit crabs in alarming numbers. Each year, it is estimated that 61,000 hermit crabs become entangled and die due to plastic marine debris on a single remote island.

4. BIODEGRADABLE CIGARETTE BUTTS

Cellulose acetate Cigarette Butts takes almost 10 to 15yrs to degrade with the soil, and Biodegradable Cigarette Butts could be a sustainable solution. Biodegradable Cigarette Butts are possible to make with natural fibre. The promotion of biodegradable Cigarette Butts needs legislative intervention, and it is possible if the political system is willing to do so. In actual terms, Tobacco should be banned; however, it's the government's decision. The welfare of the citizens of a country is a subject matter of the state. However, it is better if the inhabitant takes care of its welfare. Bhutan is the only country in the world that Banned Tobacco. Enforcing litter laws could also help in the whole process.

5. TOBACCO RELATED COMORBIDITIES AND ADDICTIVE BEHAVIOURS

Comorbid conditions such as hypertension, heart failure, hyperlipidaemia, malignancy, and diabetes mellitus are significantly higher in people who smoke. Some of the addictive behaviours are Addictive behaviours, often involved are stereotypic patterns of tobacco use, use despite harmful effects, relapse following abstinence, recurrent tobacco cravings.

Exposure of nicotine atoms to COF (cooking oil fumes) is harmful to ETS (Environmental Tobacco Smoke), which is ought to the SHS (Second Hand Smoke) demographics, COF (cooking oil fumes) + C₁₀H₁₄N₂ (Nicotine) induces oral malignancy.

47.7 per cent of smokers were oblivious of the health risks associated with smoking. (Gavarasana et al., 1992), indicating that a sizable percentage of the population is unaware that smoking can cause melanoma. People with psychological issues have smoked and continue to smoke in large numbers. Schizophrenia Smoke 11 out of 10. Hirschbein (2012).

Tobacco smoking and Schizophrenia are linked, according to metal analyses (De Leon & Diaz 2005). If a nonsmoker lives with a smoker, they have a 24% risk of developing cancer. (Hackshaw and colleagues, 1997) Tobacco Smoke (ETS) is a contaminant smoke that pollutes the air; the emission factor is 21 VOCs. Organic Volatile Compound (Daisey et al., 1998). Tobacco smoke in the workplace is hazardous to one's health (Valentin et al., 1978). Maternal cardiovascular, pulmonary, and other comorbidities have been reported in pregnant

smokers (Roelands et al., 2009). Tobacco users with PTSD frequently smoke in response to stress and PTSD symptoms, and smoking is difficult (Kelly et al., 2015).

6. THERAPIES FOR DEADDICTION

Some of the therapies which are being used are Mindfulness, Counselling, motivational enhancement therapy (MET), Cognitive Behaviour Therapy (CBT), Rational Emotive Behaviour Therapy (REBT). Community-based intervention is one of the best possible solutions. However, counsellors expressed that women do not come for therapy because of the stigma and embarrassment they face. (Colley, A. J. 2016). With this growing number of tobacco addiction, there is a requirement for de-addiction treatment within the context of the social scenario of India.

According to Indian media sources, very few women receive therapy for addictions. Due to the lack of isolated treatment for women and men, it is nearly impossible that females will be entangled with de-addiction centres (Deb, 2015).

With the existing social scenario of India, COVID-19 has thrown an additional challenge for face-to-face counselling. There is a necessity for decision-making training, thinking skill training, and mindfulness training in today's society.

7. DISCUSSION

CBs is causing marine pollution; Tobacco Should be banned; however, it is a state affair, or Human beings should stop smoking. One of the possible ways to give up smoking is through psychological intervention, but COVID-19 has got an additional challenge for all the counsellors because face-to-face counselling is dangerous, as it can further spread the infection.

One possible solution is to use a virtual platform like Skype, WhatsApp, video conferencing, zoom, and online counselling service. However, in India, rural areas do not have access to 3G or 4G connection, and for many, the device is also not available. The best possible material could be a reflective journal, reading material that can be quickly sent to any location in India by using the Indian Postal service or via email.

Marine pollution can also be solved using biodegradable CBs, but that requires the sustainable attitude of the Tobacco-based manufacturing product companies; otherwise, it can be enforced by bringing new laws or amending the existing laws.

The legislative has to play a crucial role. This means the MP can table a bill in the parliament to bring a new law. Any MP in India has the power to present a private bill at the table of the parliament and make it a law with 3/4th of the majority of both the house in India. However, this requires a sustainable attitude of legislators towards the marine ecosystem. What it seems the awareness is missing. In the Indian Education system, there is a need to integrate education towards the Marine ecosystem and sustainability.

Many Indians might not have seen a sea or Ocean; such exposure can be made a mandatory requirement as a part of the total education system. Environmental Education is now an integral part of any Indian education system, but it is confined to the plantation, and other aspects of the mainland, the elements of Highlands and coastal areas are given less importance. Which therapy would work better depends upon the therapist and client, but amid COVID-19, the best strategy for both the client and therapist to conduct session online, telephonic or via reflective notes, reflective journal, reading material.

8. CONCLUSION:

The Ocean is essential; alteration to the Ocean's ecosystem can bring climate change, which will lead to a detrimental impact on the total ecosystem. Cigarette butts (CBs) are made of cellulose acetate ($C_{10}H_{16}O_8$), a synthetic polymer, and cause Ocean pollution. A possible way to reduce pollution is to ban Tobacco totally by using biodegradable CBs or humans to stop smoking. It is almost impossible for a tobacco-addicted person to stop smoking without psychological or medical intervention. Amid COVID-19, face-to-face counselling is a challenge because of the possible infection. There is a necessity for decision-making training, thinking skill training, and mindfulness training in today's society. The training material could be self-instructed material, like Reflective Journal, reading material, Audio, and Video CD or recorded files.

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