Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Strengthening tobacco control policies during the COVID-19 pandemic in India

Sneha D. Mallya a,d, Muralidhar M. Kulkarni a,⁎, Praveen Kumar b, Varsha Nair a, M. Prabhath c

a Department of Community Medicine, Kasturba Medical College, Manipal, Manipal Academy of Higher Education, Manipal, Karnataka, 576104, India
b Department of Commerce, Manipal Academy of Higher Education, Manipal, Karnataka, 576104, India
c UNICEF Field office, Hyderabad, Telangana, India
d Manipal Centre for Infectious Diseases, Prasanna School of Public Health, Manipal Academy of Higher Education, Manipal, Karnataka, 576104, India

A R T I C L E   I N F O

Keywords:
COVID-19
LMICs
Pandemic
Tobacco control

A B S T R A C T

Problem considered: The aim of this paper was to support policy makers to make informed decisions regarding public health response in general, and tobacco control interventions particularly, in the context of COVID-19. Methods: An online cross-sectional survey using a semi-structured questionnaire was conducted in the year 2020 with stakeholders in tobacco control and public health experts from private and government organizations. Information pertaining to background characteristics of study participants and impact of pandemic on tobacco use and means to leverage tobacco control policy was collected. Data was analysed using Microsoft excel 2010 and results are presented as frequencies and percentages along with key responses from open ended questions. Results: A total of 72 stakeholders were approached out of which, 46 (56.1%) responded and were included. About 32 (74.4%) of the participants thought that public health authorities had given advice on stopping tobacco use during COVID-19 pandemic. About 19 (43.2%) participants did not notice any change in level of interest in tobacco cessation during the pandemic while a majority 34(73.8%) agreed that COVID-19 pandemic had an impact on health seeking behaviour of patients with non-communicable diseases. Nearly half of participants, 21 (48.8%) opined that tobacco industry was engaged in corporate social responsibilities during COVID-19. Conclusion: The stakeholders expressed that there is a good opportunity to further strengthen tobacco control activities during COVID-19 pandemic and also emphasized need to closely monitor tobacco industry interference during this time.

1. Introduction

Tobacco use in all forms, is significantly associated with severe Corona Virus Disease of 2019 (COVID-19) outcomes.1 It is evident that individuals with underlying chronic health conditions are at higher risk of complications due to COVID-19 and it is noteworthy that tobacco use is one of the important cause for myriad of health conditions like cardio-vascular disease, respiratory disease and cancers.2 Smokers are at greater risk of poorer outcomes if they require hospital admission for COVID-19, as smoking is a significant risk factor for respiratory infections and recovery.3,4 Smokeless tobacco users are also at risk of several diseases and their indiscriminate spitting habit may lead to spread of infection. Tobacco use currently causes more than eight million deaths per year worldwide while the global number of deaths due to coronavirus stands at 4.5 million today.5,6 There is a need to integrate responses to infectious disease epidemics and tobacco control interventions, particularly in low and middle income countries (LMICs) where health service capacity is limited.

Even though the COVID-19 pandemic has created significant societal and economic disruption, the tobacco industry has maintained a positive public image during the pandemic and is even utilising the COVID-19 crisis to its advantage.7 During the COVID-19 pandemic, tobacco control is a greater challenge than ever for health policy-makers, healthcare providers and researchers.8 COVID-19 poses a unique opportunity for combatting tobacco use.9 There is a greater need to adhere to Article 5.3 of the World Health Organisation (WHO) Framework Convention on Tobacco Control (FCTC) and ensure its implementation at country level to address tobacco industry interference in the current scenario. Generating evidence to support governments to make informed policy decisions about the public health response in general and tobacco
control interventions in particular, in the context of COVID-19 or other future infectious disease epidemics that affect respiratory health is crucial to protect population health and prevent pre-mature death. This study was designed to examine the relationship between COVID-19 pandemic on tobacco use and explore how efforts to address COVID-19 or other future infectious disease epidemics can be integrated with tobacco control policies and interventions.

2. Methods

Between July and August 2020 a cross-sectional online survey was conducted with stakeholders working in tobacco control, non-communicable diseases and public health. Ethics approval was obtained from the Manipal Academy Higher Education Ethics committee (MAHE EC 003/2020). A total of 72 participants across India were invited to take part in the survey. Purposeful sampling was used to identify survey participants, and they were chosen because of their engagement in tobacco control. Participants were first contacted via telephone followed by an email with detailed information about the purpose of the survey. A link to complete the survey was sent to participants once informed consent was obtained. Reminders were made through telephone calls and emails to encourage survey completion. A participant was termed as non-responder, if he/she did not respond after a third reminder. The survey was designed to be completed in 30 min and captured information related to the background characteristics of the participants, relationship between COVID-19 & tobacco use, impact of COVID-19 and policy response on tobacco control and implications of COVID-19 for the development of tobacco control policy. Questionnaire consisted of 15 closed ended and 15 open ended questions. Data was analysed using Microsoft Excel and results are expressed as frequencies and percentages and a text analysis was conducted for open ended questions.

3. Results

3.1. Background characteristics of study participants

Out of the 72 stakeholders who were contacted, 46 (63.9%) participated in the study. A range of respondents participated from the following sectors: research/academic institutions (n = 20, 43.5%), health professionals (n = 10, 21.7%), government officials (n = 8, 17.4%) and civil society members (n = 8, 17.4%). Amongst the participants, 30.4% at the district level, 45.7% worked at the subnational (state) level and 23.9% at the national level.

3.2. Policy responses on tobacco control

Three fourths of participants, 74.4%(n = 32) thought that public health authorities had provided advice on stopping tobacco use during first wave of COVID-19 pandemic and two fifths (n = 17, 35.9%) were of the view that the policy response to COVID-19 had an impact on the operations of the tobacco industry. They were of the opinion that there was a reduction in the sale of tobacco due to the ban from the government during the lockdown while others felt that the black market and counterfeiting increased simultaneously. Participants thought that the consumption of tobacco reduced over the last few months. Few of the participants reported that this led to a change in the tobacco industry consumption of tobacco reduced over the last few months. Few of the following sectors: research/academic institutions (n = 11), 30.4% at the district level, 45.7% worked at the subnational (state) level and 23.9% at the national level.

3.3. Impact of COVID-19 on tobacco use

Just over two-fifths of respondents (43.2%, n = 19) said that they did not notice any change in the level of interest in tobacco cessation during the COVID-19 pandemic and a lesser proportion 36.4% (n = 16) said that they noticed increase in tobacco users seeking assistance for tobacco cessation. The reasons quoted were unavailability of tobacco products, ban on the sale of smokeless tobacco products, awareness drives by governments and other organizations. Additionally, the study participants responded that various state governments and health ministry issued an advisory against the use of smokeless tobacco use and spitting in public places. They also talked about having seen social media posts by WHO about ill effects of tobacco and increased susceptibility to COVID and increased disease severity among tobacco users. Some of the participants noticed a considerable increase in the use of quitoine numbers.

Contrary to this, some participants reported an increase in the sale of tobacco products in the black market, increased consumption of tobacco products to overcome stress and to suppress hunger.

“I heard from a few healthcare providers who looked out for resources on how to help their patients on tobacco cessation. Also heard that more people are reaching out to the quit line number to quit the habit. (Research/Academic Institution, Subnational/Regional level)”

3.4. Tobacco industry (TI) response to COVID-19

Nearly half of respondents (48.8%, n = 21) agreed that the tobacco industry was actively engaged in corporate social responsibilities (CSR) activities during COVID- 19. The examples included webinars on improving lung function; donating funds to the government sector; relief activities; food packets to corona warriors; CSR for COVID care centers, sponsoring personal protective equipment (PPE) to frontline workers; providing funds during lockdown to non-governmental organizations (NGO’s) and distribution of sanitizer. About 14% of the survey participants (n = 6) denied the existence of new collaboration between the TI and government in the context of COVID-19 while 72% (n = 31) were unaware of such interactions. However, 14% (n = 6) of the respondents agreed to the existence of interaction and had noticed acceptance of the donation in terms of funds and in-kind.

“Some exploratory studies regarding use of nicotine to treat COVID, brand stretching and advertising in newspapers have been observed. (Research/Academic Institution, Subnational level)”

“There was a news regarding tobacco industry using tobacco as a medicine (some form) for treatment of a systemic ailment in COVID-19. (Research/Academic Institution, National level)”

“There have been reports of CSR donations to healthcare facilities, webinars promoted by health care professionals organised by prominent tobacco companies, sponsoring PPEs and other consumables required during the COVID-19 pandemic. (NGO, National level)”

3.5. Role of tobacco taxation in revenue generation for healthcare

Among the 41(89.2%) participants who responded to this question, 56.1% (n = 23) agreed that they expected tobacco taxation to raise the revenue which can be used to address health issues, 17.1% (n = 7) disagreed and 26.8% (n = 11) said they don’t know.

Among the responders to the question on tobacco taxation, 26 (63.4%) chose to elaborate on the role of tobacco taxation. Participants were of the opinion that rise in tobacco taxation will lead to increase in price of tobacco products which can reduce consumption but would not adversely affect Government tobacco revenue. In addition, such funds may be utilized to combat COVID-19. There was also a view that increase in tobacco taxation may support smoking cessation and could also delay age of smoking initiation.

“Tax on tobacco products should be increased. It will help government to raise extra revenue and increased price could dissuade youngsters from
buying tobacco products. (Research/Academic institution, Subnational level)"

Few stakeholders opined that if policymakers use this strategy of increasing taxes on tobacco products it will help in raising revenue, and funds generated could be used to support people from poor economic strata and in COVID control activities.

“Increase in tobacco tax will definitely have a major role. At the end of the day it’s about allocation of resources. So Government should prioritize health and invest more in the health sector through policies. (Research/Academic institution, Subnational level)"

However, a few concerns were also raised that with the centralized tax governing structure in place and tobacco being taxed under the Goods and Service Tax rules in the highest category at 28%, it is not clear if it is feasible to further increase tobacco taxes. There was concern related to price increase as it may reduce the Government’s popularity especially when the people are still recovering from the economic crisis resulting from the pandemic.

3.6 Health seeking behaviour and noncommunicable diseases (NCD) during the COVID-19 pandemic

The majority of respondents (73.8%, n = 34) were of the view that the current COVID-19 pandemic has an impact on the health seeking practices of the patients with NCDs while nine (19%) were not sure with only three (8.2%) of them saying it had no impact. It was reported that owing to the fear of getting infected, people would prefer to avoid healthcare facilities and seek care only in case of emergencies or if the symptoms worsen.

Due to the hospitals being overburdened, and lockdown, respondents felt that many people with chronic illnesses were not able to access medical care. People with NCDs, especially cancer, were unable to seek timely appointments. There has been a paucity of interventions to address issues on protecting patients with chronic diseases and the availability of easily accessible health services. Further, respondents expressed that all health care resources had been diverted towards caring for COVID-19 patients and availability of medicines and medical procedures were being delayed. This has resulted in a break in the continuum of care and will negatively impact NCD care.

“Evidence from Ebola and similar pandemic experiences have shown that there is a reduction in care seeking especially for chronic conditions in times of pandemic. (Research/Academic Institution, Subnational level)"

“People with NCDs especially cancer are unable to seek timely appointments for chemo radiation sessions. Protection of vulnerable population especially those with co-morbidities is seen in the documents but not being implemented in the field. (Research/Academic Institution, District level)"

On the positive side, respondents noted that COVID-19 had improved awareness of a healthy lifestyle, immunity and the need to prevent non-communicable diseases as those with co-morbidities are prone to adverse effects of the infection.

4. Discussion

The present study provided a baseline information regarding several important issues pertaining to tobacco control during COVID-19 times. The stakeholders asserted that the current COVID-19 pandemic should be utilized for strengthening tobacco control activities in the country. There is a need for multisectoral approach for effective tobacco control that must go beyond the health sector, as documented in earlier research.10

In a study by Singh A et al., interviewees noted that lockdown restrictions offered an opportunity to promote cessation, in the context of reduced tobacco sales.15 Our survey findings also emphasize that messages on ill effects of tobacco use and its impact on COVID-19 should be widely disseminated. In a multicentric study by Petirigew S et al., it was observed that smokers with intention to quit within 2 weeks rose to 38% from 32% after being exposed to messages about smoking related COVID-19 risk.12 This indicates that smokers will be more receptive to such messages and control measures during the pandemic. Given the important role played by the media and formal education in discouraging smoking behaviour, these media messages could be used more intensively in disseminating relevant information on the dangers of smoking.13

The study participants responded that there was a widespread ban on the sale of tobacco products during the lockdown as put forth by the Government of India and various state governments. As smokeless tobacco (ST) consumption can involve sharing of products and packets between users, frequent hand-to-mouth contacts, as well as increased salivation and compulsive spitting—all of which can significantly increase the risk for virus transmission.14 Recognising these risks, several policy responses relevant to ST control have been put forth in India followed by several states including Karnataka since March 2020 to mitigate the spread of COVID-19.15

The tobacco industry has long used CSR, as a strategy to gain legitimacy, increase public trust and advance its business interests.15 The outbreak of COVID-19 is no exception to the tobacco industry’s historic attempts to take advantage of disasters to promote its own agenda and products. Respondents in the present study have listed number of such practices of the tobacco industry during the pandemic and corroborates with another study by Yadav A et al. in which several CSR activities have been documented in the pandemic period in different parts of the country.16 Tobacco taxation passed on to consumers in the form of higher cigarette prices, has been recognized as one of the most effective population-based strategies for decreasing smoking and its adverse health consequences. On an average, a price increase of 10% on a pack of cigarettes would reduce demand for cigarettes by about 4% among the general adult population in different countries.17 The participants in the present survey also suggested that there is a need to increase the price on tobacco products. The revenue to support the health sector and tobacco control could be generated by reviewing the current tobacco taxation policy and a tax increase to replace the revenue lost to COVID-19.18,19

The health status of those living with various NCDs should be specifically assessed and means of improving care during COVID-19 should be explored. Our study put forth the concerns of many stakeholders regarding the neglect towards NCDs due to COVID-19 taking precedence. Across India, the number of new patients registered at cancer centers reduced by 54% and a reduction of 46% was noted in follow-up visits of cancer patients.20 Due to the lockdown restrictions and the decreased health care seeking behaviour of the public there might be consequent effect noticed in the near future with patients presenting with advanced illness.

In a study by Gummidi B et al. in a rural South India, it was noted that 14% of participants with NCDs missed their follow-up visits, 13.4% reported challenges in medication procurement while 11.6% developed new conditions or worsening of pre-existing conditions, while only 28.5% sought teleconsultation.21 A shift to integrated care by scaling primary and community care that also attaches importance to prevention through digital modalities is vital.

The findings of our study highlight that current pandemic of COVID-19 can be used as an opportunity to strengthen tobacco control activities. As people are more receptive to health messages at this point, it would be prudent to strengthen tobacco cessation services to aid the users in quitting. Public and private institutions involved in COVID-19 response should be sensitised regarding the tobacco industry interference. The tobacco industry must be closely monitored if it challenges key policy advancements and indulges in CSR activity. Increasing taxes on tobacco products and strict implementation of tobacco control laws are need of the hour. Besides, we also need to ensure uninterrupted health service delivery for people living with NCDs using appropriate technology.

Though the study included a smaller sample size with 25% of the stakeholders not responding to the survey, we received perception of the
stakeholders at district, state and national level and this provided a fairly representative views of health care professionals and public health experts involved in tobacco control in the country.

5. Conclusion

Our study carried out among the key stakeholders involved in tobacco control emphasizes the need for strengthening the tobacco control efforts in the country and has wider implications for during and beyond the public health crisis like the recent COVID 19 pandemic. It also reiterates that in view of increased awareness about health promotion among the masses due to the COVID-19 pandemic, we need to utilize this opportunity to advise tobacco users to quit the habit. There is also a need to be cautious of the tobacco industry tactics due to the unabated CSR activities during the pandemic. Intensifying awareness drives, capacity building of health care providers and ensuring access and availability of quality cessation services could pave the way for tobacco control beyond the pandemic times.

Funding source

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declaration of competing interest

The authors declare no conflict of interest.

Acknowledgement

Authors acknowledge guidance received from Professor Linda Bauld, Ms Fiona Davidson, Ms Fiona Dobbie from Usher Institute, University of Edinburgh, United Kingdom and Professor Jeff Collin and Mr Rob Ralston from School of Social and Political science, University of Edinburgh, United Kingdom during the identification of the research question and developing the tool. Authors are also thankful to the Tobacco Control Capacity Programme (MR/P027946/2) for providing leads to carry out research in applied aspects for tobacco control.

References

1 Gupta AK, Nethan ST, Mehrotra R. Tobacco use as a well-recognized cause of severe COVID-19 manifestations. Respir Med. 2021;176, 106233. Jan 1.
2 Reddy RK, Charles WN, Sklivounos A, Dutt A, Seed PF, Khajuria A. The effect of smoking on COVID-19 severity: a systematic review and meta-analysis. J Med Virol. 2021;93(2):1045-1056. Feb.
3 Liu W, Tao ZW, Wang L, et al. Analysis of factors associated with disease outcomes in hospitalized patients with 2019 novel coronavirus disease. May 1 Chin Med J. 2020; 133:1022-1028, 09.
4 Public Health England. Smokers at greater risk of severe respiratory disease from COVID-19 [Internet]. GOV.UK, [cited 2022 Feb 7]. Available from: https://www.gov.uk/government/news/smokers-at-greater-risk-of-severe-respiratory-disease-from-covid-19; 2020.
5 Tobacco [Internet]. Who.int. [cited 2022 Feb 7]. Available from: https://www.who.int/news-room/fact-sheets/detail/tobacco.
6 WHO Coronavirus (COVID-19) dashboard [Internet]. Who.int. [cited 2021 May 23]. Available from: https://covid19.who.int.
7 Heffer M, Gartner CE. The tobacco industry in the time of COVID-19: time to shut it down? Tobac Control. 2020;29(3):245–246.
8 Alla F, Berlin I, Nguyen-Thanh V, et al. Tobacco and COVID-19: a crisis within a crisis? Can J Public Health. 2020;111(6):995–999. Dec.
9 Clancy L, Gallus S, Leung J, Egbe CO. Tobacco and COVID-19: understanding the science and policy implications. Tob Indic Dis. 2020;18:105. December.
10 Thankappan KR. Tobacco cessation in India: a priority health intervention. Indian J Med Res. 2014;139(4):484. Apr.
11 Singh A, Logo DD, Dobbie F, et al. Tobacco use and COVID-19 in Ghana: generating evidence to support policy and practice. J Global Health Rep. 2021;5, e2021006. Mar 23.
12 Pettigrew S, Jun M, Roberts I, Nallaiah K, Bullen C, Rodgers A. The potential effectiveness of COVID-related smoking cessation messages in three countries. Nicotine Tob Res. 2021 Jul;23(7):1254–1258.
13 Vidyasagaran A. Policy Responses to Smokeless Tobacco (ST) in India during the COVID19 Pandemic [Internet]. Observational Research Foundation; 2020 [cited 2021 May 26]. Available from: https://www.orfonline.org/expert-speak/policy-responses-to-smokeless-tobacco-st-in-india-during-the-covid19-pandemic/.
14 Kumaran P. Karnataka Bans Chewing of Tobacco, Spitting in Public [Internet]. Bangalore Mirror; 2020 (cited 2021 May 26). Available from: https://bangaloremirror.indiatimes.com/bangalore/others/Karnataka-bans-chewing-of-tobacco-spitting-in-public/articleshow/76114042.cms.
15 COVID-19 (Internet). Tobaccontroltactics.org. 2020 (cited 2021 May 26). Available from: https://tobaccontroltactics.org/wiki/covid-19/.
16 Yadav A, Lal P, Sharma R, Pandey A, Singh RJ. Tobacco industry corporate social responsibility activities amidst COVID-19 pandemic in India. Tobac Control. 2021, 056419. Apr 12.
17 Jha P, Chaloupka FJ. Curbing the Epidemic: Governments and the Economics of Tobacco Control. Washington, DC, USA: World Bank Publications; 1999.
18 Kabwama SN, Nyamurungi KN, Davidson F, Dobbie F, Bauml L. Tobacco control in the context of the COVID-19 pandemic in Uganda: a policy implementation review. J Glob Health Rep. 2020;4, e020005.
19 Raising taxes on tobacco [Internet], Who.int. [cited 2021 May 26]. Available from: https://www.who.int/activities/raising-taxes-on-tobacco.
20 Ranganathan P, Sengar M, Chinnaswamy G, et al. Impact of COVID-19 on cancer care in India: a cohort study. Lancet Oncol. 2021;22(7):970–976. Jul 1.
21 Gummidi B, John O, Jha V. Continuum of care for non-communicable diseases during COVID-19 pandemic in rural India: a mixed methods study. J Fam Med Prim Care. 2020 Dec;9(12):6012.