

## Need for Adherence to Healthy Behaviour in the Post - Covid-19 Immunisation Scenario

**Sindhu Joseph<sup>1,3\*</sup> and Jijo Pulickiyil Ulahannan<sup>2,3</sup>**

<sup>1</sup>*GPM Government College, Kannur University, Kerala, India*

<sup>2</sup>*Government College Kasaragod, Kannur University, Kerala, India*

<sup>3</sup>*Collective for Open Data Distribution - Keralam (CODD-K), Kerala, India*

**\*Corresponding Author:** Sindhu Joseph, GPM Government College, Kannur University, Kerala, India.

**Received:** November 12, 2021; **Published:** November 29, 2021

The COVID-19 pandemic has disrupted the balance of life and has affected millions of livelihoods with the closure of international borders, shutting down businesses and the loss of the near and dear. Vaccination has been accepted as the single efficient clinical intervention, and therefore countries are progressing with an increased rate of vaccination. However, infections among the vaccinated people have increasingly been reported with the onset of different variants of COVID-19, strong enough to penetrate the shield of vaccine protection [1-3].

Amidst the vaccination drive, governments around the globe have given importance to lockdowns and called for social behaviours to mitigate newer infections. However, previous studies noted that confirming the effect of vaccination and its strength are yet to be guaranteed in a particular area as it might also be described by other factors, like lockdowns and behavioural changes such as social distancing and masking [4]. Further, the virus could open out from asymptomatic infection carriers, making it difficult to spot those infections, as was seen during the trial of Moderna's vaccine. The research team saw a drop in the cases of asymptomatic infections by two-third among those who got the first dose of the double-dose vaccine, compared to those who took a placebo [4]. However, about a month apart, they could test people only twice, leaving chances for failure to notice the infections.

Similarly, in the UK, the Oxford University and AstraZeneca vaccine trials swabbed persons every week. AstraZeneca assessed a 49.3% decline in asymptomatic COVID-19 cases among the vaccinated group compared to the unvaccinated [4]. It is also found that in Israel, many research groups have been measuring 'viral load' - the concentration of viral particles- among vaccinated persons who have later tested positive for SARS-CoV-2. But it is to confirm whether this noticed depletion in viral load is enough to make a person less infectious [4].

Mitigating the COVID-19 outspread that extends beyond vaccination requires an extraordinary multidisciplinary approach. Even after vaccinating a large population, the states/countries are expecting a third wave. Precise information about the post-vaccination COVID-19 behaviour can help to create social awareness about the vulnerability of the situation. Living with the COVID-19 virus is the new normal. Therefore, this behaviour would gradually become a social norm and a part of the ethical behaviour in society. Thus, subsequent waves could be prevented or minimised. Often, the social stigma accompanying the disease is not significant enough to make persons reluctant in adhering to COVID-19 Appropriate Behaviour (CAB). Hence, generating increased awareness would enable the development of necessary skills to perform health behaviours thereby, reducing the possibility of infection [5].

Despite clinical intervention such as the COVID-19 mass vaccination drive, the present situation urges the need to follow other protective behaviours essential for controlling the pandemic among the vaccinated and the unvaccinated [6]. While vaccination is an indispens-

able part of COVID-19 protection, it is necessary to emphasise the continued practice of CAB, which overarches all measures that maintain and sustain critical preventive behaviours in the phase of COVID-19 infection and this includes wearing masks, maintaining a physical distance of 1 - 2 meters (6 feet) and handwashing with soap and use hand sanitiser [7] for personal safety and prevention of community transmission. It also includes rapid testing and prompt self-isolation. People must be aware of the aftermaths of a possible spread if not adhering to CAB. Therefore, CAB needs to be followed and continued diligently during and after the vaccination session until the world can adequately address and fight the virus.

Demographic, cultural, political, and psychological factors affect human behaviour, which are significant determinants of individual adherence to CAB. Furthermore, it is widely accepted that a change in one's attitude leads to a change in their behaviour which could always be challenging. Covid-19 outspread has forced people to alter their health and social behaviours in a grim situation, but there is a predisposition to fall back to their own inherent individual behaviour at the next possible opportunity. Though this behavioural change seems complex and challenging to attain, the social sustainability of the world demand CAB, which goes beyond merely observing the COVID-19 protocols. Many communities foster the conception that healthy young people are less vulnerable to this pandemic.

Further, due to the scarcity of non-polluted water, particularly in low and middle-income nations, frequent handwashing behaviour is a threat [5]. Moreover, here, about 10% of the global population do not have improved access to a water source [8]. The scarcity of resources and the absence of healthy living conditions in many countries make social distancing almost impossible. The underprivileged and marginalised communities do not have any other option other than living nearby.

Coetzee and Kagee [5] conceptualised the structural obstacles by drawing the Theoretical Domains Framework (TDF) to describe how these obstacles influence the observance of lockdown rules. They argued that without enough support system or intervention to assist impoverished communities in mitigating the barriers, adhering to the lockdown conditions is challenging, resulting in persistent COVID-19 infections. TDF incorporates many influencing factors such as skills, knowledge, social/professional role and identity, optimism, beliefs about capabilities and consequences, social influences, intentions, goals, reinforcement, memory, attention and decision processes, environmental context and resources, emotions, and behavioural regulation [9]. Michie, *et al.* [10] stated that capability (physical capacity, knowledge, and skills), motivation (brain process to direct behaviour), and opportunity (structural or societal factors and build conditions for a potential behaviour to be enacted) are necessary to enact the desired behaviour.

While adhering to CAB, it is imperative to investigate the other significant areas related to the spread of this pandemic. A better understanding of the pandemic effects on vulnerable populations' health and health behaviour may be the initial step towards detailed policy recommendations [11]. The possible convergence of Noncommunicable Diseases (NCDs) with an epidemic like COVID-19 may be disastrous. NCDs, mainly cancers, cardiovascular diseases, type 2 diabetes and chronic respiratory diseases, are the leading reasons for death globally [12]. The latest research reveals that the overwhelming problem of disease in the elderly, who are highly vulnerable in the face of COVID-19 infection, is NCD. Presumably, NCDs are the outcomes of 'lifestyle choices' that are often connected with the 'affluent urban' living style. Paradoxically, NCDs are no more limited to 'affluent' communities. Instead, it has become an escalating challenge among older adults in sub-Saharan Africa and many low and middle-income nations [13].

Moreover, to exacerbate the situation, there is an increased risk of multi-morbidity, a more significant risk where many chronic conditions are experienced simultaneously [14]. Multi-morbidity results in various interactions between one case, the medication recommendations for another case, and the medications recommended for various ailments. Consequently, the impact of multi-morbidity on functionality, quality of life, mortality and rate of healthcare expenditure may be more significant [15]. The epidemic and the contagious disease promptly affect people particularly, the older population. The results would be dangerous when NCDs converges with epidemics. Indeed, the treatment and prevention of NCDs create an important challenge for public health [12]. Here, it is imperative to investigate the constant increase of NCDs and their burden, which will destabilise progress towards lowering premature mortality due to NCDs [13] and stand as a significant hindrance in achieving Sustainable Millennium Development Goals (SMDGs).

The significant increase of NCDs shares few modifiable behavioural risk factors: physical inactivity, unhealthy diet, tobacco usage, and overconsumption of alcohol [12]. Adopting healthy lifestyles, avoiding excessive alcohol and smoking, regular exercise behaviour, and a healthy diet represents an effective economic strategy to counter the burden of NCDs [12]. These can be considered Non-Pharmaceutical Interventions (NPIs) to fight against NCDs and other possible infectious diseases. A healthy diet consists of specified calorie intake, including unsaturated fats, plant-based foods, animal source foods in lower quantities, small amounts of refined grains and processed foods [16]. It is found that Mediterranean-type dietary patterns can successfully prevent and manage the onset of significant NCDs, lower total mortality and diseases and can promote a healthy ageing pattern [12]. Likewise, physical exercise results in reduced risk of mortality and increased health benefits [17]. To this end, the WHO has advised countries to develop and implement appropriate programmes and policies to enable populations to be physically energetic and enhance their health.

To enable the population to follow these health behaviours, every country's primary health care system has an important role. The present healthcare system gives priority for specialized treatments and serious health issues than the healthy living and healthy ageing aspects. Hence, primary health care systems must be efficient and equipped to prevent and treat critical NCDs and epidemics by managing the risk factors, medication [19], health check-ups, slowing down disease episodes, and improving functionality levels. Moreover, the increased health awareness on the aftermaths of non-adherence to health behaviours will help the population perform 'healthy living' by reducing the possible convergences of chronic and infectious diseases and adopting CAB.

### Bibliography

1. Jennifer Kates, *et al.* "COVID-19 vaccine breakthrough cases: Data from the states" (2021).
2. Centers for Disease Control and Prevention. COVID-19 Breakthrough Case Investigations and Reporting (2021).
3. Haas EJ, *et al.* "Impact and effectiveness of mRNA BNT162b2 vaccine against SARS-CoV-2 infections and COVID-19 cases, hospitalisations, and deaths following a nationwide vaccination campaign in Israel: an observational study using national surveillance data". *Lancet* 397.10287 (2021): 1819-1829.
4. Mallapaty S. "Can COVID vaccines stop transmission? Scientists race to find answers". *Nature* (2021).
5. Coetzee BJ and Kagee A. "Structural barriers to adhering to health behaviours in the context of the COVID-19 crisis: Considerations for low- and middle-income countries". *Global Public Health* 15.8 (2020): 1093-1102.
6. World Health Organization. Statement for healthcare professionals: How COVID-19 vaccines are regulated for safety and effectiveness". World Health Organization (2021).
7. National Centre for Disease Control. National Guidelines for Infection Prevention and Control in Healthcare Facilities. Ministry of Health and Family Welfare, Government of India (2020).
8. Ritchie H and Roser M. "Gender Ratio". Our World in Data (2019).
9. Cane J, *et al.* "Validation of the theoretical domains framework for use in behaviour change and implementation research". *Implementation Science* 7 (2012): 37.
10. Michie S, *et al.* "The Behaviour Change Wheel: A Guide to Designing Interventions". Silverback Publishing (2014): 329.
11. Waisel DB. "Vulnerable populations in healthcare". *Current Opinion in Anesthesiology* 26.2 (2013): 186-192.
12. Caprara G. "Mediterranean-Type Dietary Pattern and Physical Activity: The Winning Combination to Counteract the Rising Burden of Noncommunicable Diseases (NCDs)". *Nutrients* 13.2 (2021).
13. Gyasi RM and Phillips DR. "Aging and the Rising Burden of Noncommunicable Diseases in Sub-Saharan Africa and other Low- and Middle-Income Countries: A Call for Holistic Action". *Gerontologist* 60.5 (2020): 806-811.

14. WHO. "World Report on Ageing and Health". *World Health Organization* (2015): 258.
15. Marengoni A., et al. "Aging with multimorbidity: a systematic review of the literature". *Ageing Research Reviews* 10.4 (2011): 430-439.
16. Cena H and Calder PC. "Defining a Healthy Diet: Evidence for The Role of Contemporary Dietary Patterns in Health and Disease". *Nutrients* 12.2 (2020).
17. World Health Organization. Global Action Plan on Physical Activity 2018-2030: More Active People for a Healthier World". *World Health Organization* (2019): 101.
18. Chaput J-P, et al. "WHO guidelines on physical activity and sedentary behaviour for children and adolescents aged 5-17 years: summary of the evidence". *International Journal of Behavioral Nutrition and Physical Activity* 17.1 (2020): 141.
19. Mikkelsen B., et al. "Life course approach to prevention and control of noncommunicable diseases". *British Medical Journal* 364 (2019): 1257.

**Volume 3 Issue 9 December 2021**

**©All rights reserved by Sindhu Joseph and Jijo Pulickiyil Ulahannan.**