

To What Extent Have Behavioural Sciences Shaped Policy Making During the COVID-19 Pandemic Analysis from Oman

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Abstract: *The Coronavirus (COVID-19) outbreak has led to a massive global health pandemic which caused a surge in changes to public policies adopted around the world, most notably policies related to health, travel, education, work, and freedom of movement. It is well known that a deep understanding of human behaviour can pave the way for the design and implementation of more efficient public policy. In recent years, behavioural sciences have gained considerable momentum among policymakers. This article examines the ways in which behavioural science has contributed to shaping public policies during the Covid-19 pandemic with a focus on the Sultanate of Oman.*

Keywords: COVID-19, Public policy, Behavioural Sciences, Policymaking, Policymakers, Governments, Public Behaviour, Sultanate of Oman, Health, Travel, Lockdown

1. What is the role of behavioural science in policymaking?

1.1 Public Policy Making and Behaviour Science

Public policies follow a particular purpose; they are designed to achieve specific objectives and provide solutions to societal issues. More precisely, policies are government statements of what they intend to do or not do, including regulation, decision, order, or judgment, (Knill & Tosun, 2008), which is taken to resolve the major collective problems (Klimczuk, 2015). The main policymaking process consists of four stages, namely (1) agenda setting, the process of which begins by setting an agenda based on a previous issue or decision which refers to the process of prioritising public issues according to their significance (Wang, 2008); (2) policy formation, which is the phase in which policies are created or changed; (3) Policy adoption and implementation, which is the phase in which the policy is enacted, or it comes into effect; (4) evaluation, which is the stage of assessing the extent to which the policy was successful (World Health Organization, n.d.). Each policy cycle commences by defining a societal issue and placing it on the policy agenda and thence formulating policy proposals, one of which will be approved. In the next phase, the approved policy is implemented. Finally, policy impacts are evaluated. This last phase leads directly to the first phase, which means that the policy cycle is continuous. This policy cycle sequential model represents a simplification. In reality, different political institutions and actors may be involved in different processes at the same time. However, the policy cycle offers a useful guide for dividing policymaking into different sections so as to be able to demonstrate how policy is actually made (Knill & Tosun, 2008). Policy implementation comprises the procedures and mechanisms by which policies are put into practice, whereby what is written in the policy document is transformed into reality. In this phase, the policy content and its effects on those affected may be substantially modified or even revoked. In analysing this phase of the policymaking

process, one needs to examine how, when, and where particular policies have been implemented. Policy evaluation is the monitoring, analysis, criticism, and evaluation of proposed or existing policies. This covers the assessment of their content, implementation, and impacts. Furthermore, the evaluation of policy is designed to assist governments in performing policies in an efficient and effective manner (World Health Organization, n.d.).

These four stages of policymaking agenda formation, policy adoption, policy implementation, and policy review occur at all levels of government, and hence provide many opportunities for involvement of behavioural analysts. Considering the executive, legislative, and judicial branches within federal, state, and major metropolitan governments, these may be the best arenas on which to focus attention because they are where most social goals are set, and performance standards established. By influencing decision making in these settings, behaviour analysts can affect public policy in meaningful and legitimate ways (Fawcett et al., 1988).

Recently, behavioural sciences have gained what can only be considered remarkable momentum among policy makers (Galizzi, 2017). Governments and policymakers have become interested in implementing the insights derived from the behavioural sciences into the process of making policies. The purpose of behavioural policymaking is one of correcting the decisions that produce "suboptimal" results and readdress them towards alternatives that will leave people "better off." (Fabbri & Faure, 2018)

Certain governments have created 'behavioural insight teams' within their civil services, for example, the Social and Behavioural Sciences Team in the US and the Nudge Unit in the Cabinet Office in the UK; similar initiatives have also been formed by the governments of Canada, Australia, Denmark, Finland, the Netherlands, France, New Zealand, Norway and Singapore (Galizzi, 2017).

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Policymakers can use behavioural insights to identify behavioural patterns and diagnose behavioural biases that contribute to the issue (s) they aim to address. This is necessary in order to identify the behavioural levers on which the interventions of the policy must rely. This is necessary for the identification of the behavioural motives on which effective policy interventions should rely. A deeper understanding of the cognitive mechanisms at the core of single decision-making can smooth the path for more efficient design, implementation, and evaluation of public policies. Once the behavioural bias causing the problem has been identified, behavioural insights can be useful in designing and implementing policies, based on a more realistic view of individual behaviour and its interaction with policy tools. The application of behavioural insights into policymaking motivates a thorough evaluation approach. In order to examine the effectiveness of a specific behavioural intervention, its results should be evaluated experimentally. Measurable indicators of public policy effectiveness should be determined prior to the intervention being implemented. An analysis of the differences in these indicators allows for an assessment of whether the intervention has been successful according to the policymakers' goals. (OECD, 2017).

Thus, the public policymaking process presents behaviour analysts opportunities to shape public policy and influence decisions that impact the evolution of societies (Seekins & Fawcett, 1986), and this can help public policymakers identify individuals' decision biases and use them as starting points for designing, for instance, COVID-19-preventive interventions (Soofi et al., 2020).

1.2 Policy pathways in dealing with Coronavirus pandemic

The COVID-19 pandemic presents a tremendous global health pandemic (van Bave, 2020), which has led to a surge change in public policies adopted around the world (Weible et al., 2020). This section presents policy approaches in dealing with Coronavirus pandemic in certain countries.

a) Learning from Past Failure

South Korea's response has been widely considered one of the most successful models in the fight against COVID-19 (Shokoohi et al., 2020). Learning from past failures in the MERS crisis in 2015 was one of the most important factors that led to Korea's success in dealing with the COVID-19 pandemic. Subsequent to the MERS crises, the Korean government published a whitepaper (Moon, 2020) that included the main lessons and policy recommendations to protect people from analogous, potential disease crises that may occur in the future (Lee et al., 2020). For instance, based on policy recommendations in the white paper, the South Korean government upgraded the Korea Centres for Disease Control and Prevention (KCDC) to a ministerial-level agency and strengthened its independence and professional specialities (Moon, 2020). The Korean government followed an aggressive and agile approach, tracing and testing anyone who might have been exposed to COVID-19, then treating confirmed patients in designated facilities based on their medical situations. This proactive approach has driven a marked success in taming COVID-19

(Lee et al., 2020). Being well prepped and the rapid implementation of public health responses in the early stages have effectively contributed to controlling the epidemic in South Korea (Park et al., 2020).

b) Diffusing and transferring ideas across governments

Policymaking is influenced by contextual factors, including institutional factors such as legal structures and constitutional, economies, cultural trends, and political styles (among others). For instance, Sweden's response to COVID-19 crises has avoided imposing lockdown in the country, and this is partly attributed to the nation's culture of trust and responsibility. The impetus for all changes across the world has been the COVID-19 shock itself, which directly affects healthcare systems around the world, but indirectly affects other policy areas, for example, by postponing welfare reforms, environmental policies, and other actions considered "unnecessary" (Weible et al., 2020).

c) Anticipatory Policy Making

The New Zealand government has imposed strict lockdown rules but framing the "team of over a million people" for the lockdown was an excellent example of how policymakers could "nudge" citizen behaviour by resorting to simple but effective messages. The Italian case was a sharp reminder of the need for strict local action. Seeing a Fiat off the road was, in fact, a very effective "spark" that led to a rapid policy change in the country. The policymakers in New Zealand had access to adequate modelling data and medical expertise to know that a truly severe lockdown was the sole viable choice if the crisis was to be avoided. Due to the fragility of the underfunded healthcare infrastructure, New Zealand, for instance, has been unable to adopt Sweden's controversial approach to lockdown policy. Additionally, although New Zealand business interests were concerned about the possible financial effects of a severe lockdown, they did not mobilise to object to it. Almost everyone in New Zealand accepted that a strict lockdown was inevitable (Mazey & Richardson, 2020).

d) Partial solutions

For instance, the Italian government has dealt with the COVID-19 crisis by issuing a series of rules that gradually increased the restrictions within the lockdown zones ("red zones"), which were then expanded until they were eventually applied to the whole country. In normal times, this approach might be seen as wise, but in this case, it was counterproductive for two reasons. First, it was in conflict with the rapid spread of the virus. At no time were the "facts on the ground" a foretaste of what the situation would be like in just a few days. As a result, Italy followed the spread of the virus instead of preventing it. Second, the eclectic approach may have inadvertently facilitated the spread of the virus. The decision to lock down certain areas but not others in the beginning, when the decree declaring the closure of northern Italy became public, caused a mass migration to some parts of Italy, which undoubtedly led to the spread of the virus to regions where it had not previously been present (Weible et al., 2020).

2. Case study: Sultanate of Oman

2.1 Omani Policy in dealing with the COVID-19 Pandemic

The government of Oman has formed a supreme committee to study a mechanism with which to deal with developments resulting from the spread of the COVID-19 virus in light of the emerging health data and indicators and information issued by the World Health Organization in this regard.

In light of this, the committee issued its decision No. (151/2020 AD) on 18 May 2020, mandating the Royal Oman Police to monitor the commitment of individuals and establishments, public and private institutions to the decisions issued by the Supreme Committee and to directly authorise them to impose financial fines and preventive detention of all violators of these decisions.

A number of Arab and European countries declared a state of emergency. However, the government of the Sultanate of Oman did not follow suite, knowing that the declaration of the state of emergency in the Sultanate of Oman and its termination would be carried out by a royal order based on Royal Decree No. (75/2008). Since the Supreme Committee was formed according to royal orders, its decisions are binding and enforceable according to Article 41 of the Basic Law of the State, which imposes an obligation to abide and implement them on all authorities and individuals in the state. The government of Oman followed a gradual approach in dealing with the pandemic, as it gradually imposed measures in accordance with the requirements of the situation. However, the following section analyses the factors that contributed to making decisions during the COVID-19 pandemic in the Sultanate of Oman.

2.2 Public determinants that mitigate COVID-19 in Oman

The first two cases in Oman were confirmed on 24 February 2020 related to Omani nationals returning from the Islamic Republic of Iran. One month earlier, the surveillance unit in the Ministry of Health had its first meeting about Sars-COVID-19-v2 since China declared there was a pneumonia-like-inducing virus in December 2019. Information published by the World Health Organization (WHO) mentioned that the novel root of transmission of the virus was air droplets via a nasopharyngeal root. It was suggested by the outbreak communications planning guide that changes in personal behaviour could minimise the spread up to 80%.

3. Society's Perception of Public Behaviour

Behavioural information from previous respiratory pandemics such as SARS, MERS, Influenza and Swine flu suggested that people's ability to protect themselves, make appropriate choices and fulfil the recommendations were significantly correlated with the perception of information from accessible and trusted sources. Behavioural understandings of society to mitigate the spread of COVID-19 are of critical importance, where countries are different in social responses, economic consequences, and

sociodemographic makeup. These include the perception of the seriousness of the virus and mindfulness of its consequences on the health system. Additionally, mass behaviour (such as panic shopping for food and individual hygiene products) can be quantified to evaluate its occurrence and sources.

4. Public Behaviour

There was a distinct positive relationship between increased behaviour change and fear of COVID-19, signifying that those with developed fear indices were those who were engaging with more communal health behaviours. In the development of the functional "Fear" the authors rightly state that "with high levels of fear, individuals may not think clearly and rationally when reacting to COVID-19" (Ahorsu et al. 2020, p. 2). This is true for the pure emotion of fear, which represents the reactive removal of oneself from a position of immediate risk. However, many of the items in the fear of COVID-19 Virus Scale (FCV-19S) are relevant to anxiety, and preliminary response to uncertain or distant stimuli. Besides the conceptual resemblance in the wording of the items, the study exposed a strong association between the FCV-19S and DSM-based procedures of anxiety. This is significant as distress and unease are behaviourally and neuro-endocrinologically diverse responses (McNaughton and Corr 2008), with nervousness possibly having a functional preparative role in meeting future adverse stimuli consistent with the data presented. Undeniably, as has been designated previously, undesirable reactions may have progressed to serve more adaptive and defensive purposes and may aid to preserve our safety. In the current context, this appears to be the case with undesirable reactions being protecting (i.e., promoting public health behaviours) throughout the COVID-19 pandemic. The outcomes of the study propose that adverse reactions in response to the existing pandemic expect adaptive public health-compliant behaviour changes (e.g., social distance, hand washing, etc.). Functional Fear Predicts Public Health Compliance (Alshekaili et al., 2020) has found that first-line health workers were more mentally affected compared to non-front liners, where such results are important to direct the mental health services of the Sultanate.

4.1 Sociodemographic

People are different with regard to their compliance with regulations (e.g., Levi & Stokker 2000; Luttmner & Singhal 2014). It is suggested that age is a key factor in adherence to public health recommendations. A particular characteristic of SARS-CoV-2 is its higher prevalence among older people and those with pre-existing conditions such as hypertension, diabetes, cancer, heart failure, and chronic obstructive pulmonary disease. COVID-19 is an emergent disease of ageing. Studies have also found that individual differences in education are also associated with information-seeking with regard to medical issues (Ramanadhan & Viswanath, 2006). Oman has eleven geographical provinces, where Muscat is the capital, with an international airport. A study of the attitude of travel medicine in Muscat international airport revealed that 40% of people were not interested in health measures (Alabri et al., 2016). During the first four months of the pandemic the majority of cases in Oman

occurred in the Governate of Muscat, in contrast, Dhofar and Musandam, were least affected. Batinah south and Dakhalia are the second-most affected after Muscat. The epicentre in Sharqiyah south was detected to be on the *souq* (market) and geographically isolated. Oman has a baby boomer society, where an emerging transition of a youth bulge has been observed since 2010 and that will likely continue until 2040. There has been an increase in non-communicable diseases in this age group compared to older communicable diseases that constitute a risk factor with regard to the new coronavirus. The closure of preschools (nurseries, kindergarten), schools and higher educational institutions (vocational and academic colleges), are helping to prevent the spread of the infection in this age category (0 – 25).

4.2 Socioeconomic

A socio-economic pattern was observable in the distribution of COVID-19. Initially, the majority of confirmed cases were in areas of Mattrah (part of the Government Muscat), where more than 60% of Oman's confirmed cases were detected. In particular, this was in specific areas of Humryia, Wadi Kabeer, and Ruwi. The latter areas accommodated non-Omani labours. The city of Mattrah consists of 80% non-Omanis.

The prolonged period of suspension of financial activities has led to an increasing number of violations of the regulations published by the supreme committee. After the declaration by the Minister of Health in his weekly press conference, most labourers found to be breaking the regulations where tailors of women cloths, where an increasing number of cases were being found among this profession across the entire country.

New strategies may require further structural support for particular socio-economic groups. This is essential to the vital choices about how to be able to meet a long-term obligation to ensure continued fiscal funding for individuals who are otherwise unable to work from home. Additionally, the government could arrange additional, appropriately applied psychological nudges together with their lockdown rules in order to support affected people during this difficult stage. During COVID 19 crisis, the numbers have showed the characteristics of individuals who choose and do not choose to comply with the regulations, such as their sociodemographic and socio-economic data, so policymakers might be able to use those statistics to create an appropriate policy matches these characteristics and thus , more efficient. The ability to apply virtuous governance in the long term during the pandemic will depend on much-improved teamwork between entities at every level of crisis management.

Explicit unresolved manpower issues related to medical field have appeared during the current medical emergency. At the beginning of the spread of the pandemic, a trend in the reduction of medical and health assistant personnel's salaries became apparent. Another issue has arisen during this crisis is the issue of intern medical doctors who are demanding to employ them instead of non-Omani doctors who work in Oman. The third issue is medical students' complaints of harsh study plans in medical school. During this medical

emergency, there were many cases of the methods used by a small number of suppliers to increase prices of the health-related items (especially face masks and alcohol sanitizers). In contrast, there is neither recorded panic shopping nor hoarding of groceries.

5. Conclusion

As countries differ in their sociodemographic, economic, and social responses, a behavioural understanding of a society to mitigate the spread of COVID-19 is of critical importance to the effective formation of policies designed for each individual community. Applying behavioural insights to policymaking improves the approach to holistic assessment of the issues presented, and this can help policymakers to identify individual biases in decision making and use them as starting points for designing effective preventive interventions.

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