

**Dilemma Amidst Crises:
Students' Experiences of COVID-19 Vaccine Uptake
at the University of Dar es Salaam, Tanzania**

*Egidius Kamanyi**

Abstract

This paper discusses the experiences of university students on COVID-19 preventive measures by focusing on the dilemmas encountered in responding to the pandemic, especially vaccine uptake. Findings were captured using a qualitative approach through key informant interviews, focus group discussions, and observations at the University of Dar es Salaam. The study was triggered by the fact while COVID-19 pandemic has produced a myriad of challenges to human livelihoods, including for students, experiences of the latter in facing the pandemic are mildly established in literature; particularly how being in areas highly exposed to the risk of COVID-19 has influenced their responses and coping strategies towards acceptance of, or resistance to, vaccination. Based on an interactionist conceptualization, the findings show that COVID-19 is a contested disease as it is defined and understood differently by students in accordance to their everyday experiences and agency, coupled with interactions among and beyond them. Hence, the acceptance and/or resistance to COVID-19 vaccines was informed by same multiple experiences from various sources of information, news, misinformation, trust and distrust. In responding to the COVID-19 pandemic, students received information from government announcements, mainstream media, and interactive social media outlets that created fear, uncertainty and controversies, which in turn influenced students' understanding and decisions to accept or resist COVID-19 vaccines. The paper concludes that students are not only consumers of information and messages, but also creators and actors on the same.

Keywords: *COVID-19 vaccination, experiences, interaction, crisis, university students*

1. Introduction

The COVID-19 pandemic has challenged humanity across the world since its advent in 2019. It has led to multiple questions around how various people experienced and responded for survival. Students form a unique group of actors who—by the virtue of being in universities and colleges that are normally overcrowded, especially in the African context—had nuanced experiences that deserve attention. Therefore, this paper delves into the experiences of students on COVID-19 vaccination in Tanzania. Mainly, it presents and discusses findings in relation to the dilemmas faced by university students during the crisis by unpacking the experiences of students in their local contexts.

In view of this pandemic's trajectory, the World Health Organization (WHO) pronounced the pandemic in the year 2019; and in early 2020 recognised it as a public health emergency of international concern (PHEIC); the WHO's highest

* Department of Sociology and Anthropology, University of Dar es Salaam: kamanyi.egidius@udsm.ac.tz

level of alarm (WHO, 2020; Zakar et al., 2021), before declaring the end of the same alert in May, 2023. While death rates were increasing globally, amidst uncertainty of what the cure could be, WHO optimistically enunciated: “Through transparent knowledge-sharing, tailored support on the ground, and steadfast solidarity, we will beat COVID-19.” (WHO, 2020; Woolf, 2021). This was also echoed in other places of the world, including in Africa; and Tanzania in particular (Shagembe et al., 2022; WHO, 2020). The COVID-19 updates by the WHO indicated that towards the end of 2022, more than 506m individuals had been infected with COVID-19; and more than 6.2m individuals had died globally.

Early between year 2020–2021, COVID-19 infection rates were accelerating in Africa, including in Tanzania. By April 20, 2022, Tanzania had reported 33,864 COVID-19 cases, and 803 deaths (WHO, 2022). Global efforts to mitigate the spread of COVID-19 included travel restrictions, international border closures, and strong public health measures—such as physical distancing, complete and semi-lockdowns and mask mandates—were implemented (Kamble, 2020, Francis, 2020). Complementing these strategies, several vaccines for SARS-CoV2 were developed, substantially mitigating the severity of COVID-19; and potentially reducing its transmission potential (Tlale et al., 2022; WHO, 2021; Shagembe et al., 2022). Correspondingly, from 2021 the emphasis shifted from general preventive measures to include vaccination as a sustainable way going forward. Various types of vaccines against COVID-19 were frantically distributed across the world; and reached Sub-Saharan Africa (SSA) and other less developed countries a bit later due to a vivid divide in accessibility. By the end of year 2022 about 11.5bn doses had been distributed globally, whereby according to reports by WHO (2022), 4.63bn (59.3% of the world population) people had fully been vaccinated. However, by April 2021 only 18m doses (representing 2% of all vaccine doses administered globally) had been administered by 41 African countries.

In the case of Tanzania (as per evidence from www.covid19.trackvaccines.org), five (5) vaccines were approved for use across the country. These were Pfizer/BioNTech (Comirnaty), Gamaleya (Sputnik light), Janssen (Johnson & Johnson), Sinopharm (Beijing), and Sinovac (CoronaVac). By the end of 2021, a total of 7.01m doses were available in Tanzania, but people fully vaccinated were 3.07m only, which was only 5.1% of the fully vaccinated people from the entire population (www.worldometers.info//tanzania-2022). The government, through the Ministry responsible for health, reviewed its decision by August 2022 allowing all people from ages 18 and above to receive the vaccine, unlike in the previous directive where only the aged and other frontline service providers—such as those in health and travel points—were allowed to be vaccinated. Nonetheless, despite the decision allowing youths to be vaccinated, the country still recorded a few people—especially the youths—at vaccination stations (WHO & UNICEF, 2022); with reasons not well established in literature. This gap has compelled this study to contribute by exploring the experiences of university students towards COVID-19 vaccines, taking the College of Social Sciences of the University of Dar es Salaam, Tanzania, as a case study.

2. Context of the Study

Crowding and the youthfulness of the population at universities was the main impetus deciding to conduct this study at the University of Dar es Salaam. Universities are considered high risk areas for COVID-19 outbreaks given the crowded environment of campuses, with high mobility and limited space (Ning et al., 2021; Plakhotnik, 2021). Henceforth, available literature from other contexts such as Pakistan, the USA, India and Japan indicate that extensive vaccination of college students is important in the context of vaccine safety assessment, and in improving vaccination coverage and control of the disease. However, there is still a little understanding of how students view and decide about COVID-19 vaccinations (Biswas, 2021; Brauer et al., 2020; Mercy, 2020). This is even more so in the context of Tanzania where vaccination rates were very low by the end of 2022; hence making it critical to understand the experiences of students towards COVID-19 pandemic and its vaccines.

The objective of this paper is to provide insights of students from the University of Dar es Salaam in their experiences with the COVID-19 pandemic and vaccination uptake, with data triangulated to include some views from staff members as a means to further deepen the understanding of the students' views. The paper addresses a few questions such as: What has been the COVID-19 crisis response trajectory at high level (government), and how has it influenced the actions at lower levels such as in universities? What is the nature of decisions, actions and experiences among students? What was the understanding, and how did students respond to COVID-19 and its vaccines? What are the views and dilemmas among vaccinated and unvaccinated? To answer such questions, I first provide insights on the global, regional and country level contexts of the experiences of COVID-19 from the literature.

3. Global and Regional Dilemmas on Acceptance of Vaccination Against COVID-19

The Acceptance of COVID-19 vaccines is asymmetrical across the globe. For instance, a global survey of the potential acceptance of COVID-19 vaccines has shown that differences in acceptance rates ranged from almost 90% (in China) to less than 55% (in Russia). In an Australian study (Marielle et al., 2020), 80% respondents generally held positive views towards COVID-19 vaccination; while 65% of participants in Saudi Arabia showed interest to accept a COVID-19 vaccine, if available. The preliminary results of a Chilean case study on COVID-19 vaccine perception in the country showed that 87% were willing to vaccinate (WHO 2021; Malik et al., 2020; Marielle et al., 2020; and Mchome et al., 2021). Reasons established for this trend included gender and age disparities which were found to have an influence on vaccine acceptance. Furthermore, willingness to accept future COVID-19 vaccines in Saudi Arabia was relatively high among older age groups, married participants, people with a postgraduate degree or higher education level (68.8%), non-Saudi (69.1%), and employed in government sector (68.9%) (Seale et al, 2021).

While the contexts differ, there are some indications of similarity whereby a qualitative study conducted in Arusha and Mwanza, in Tanzania, revealed that the rate of vaccination among the aged, married, and education was dynamic (Kamanyi, 2022). Vaccine acceptance was more among the aged ones compared to other groups (*ibid.*). Other studies have demonstrated that subcultural diversity also influences vaccine acceptance. For instance, in the USA, African-Americans and Hispanics demonstrated higher vaccine hesitancy than other cultural or ethnic groups (Donde, 2021). Religion, gender, residing in deprived neighbourhoods were also some other factors found to be correlated with COVID-19 vaccine hesitancy in Australia; while reliance on social media and refraining from news were also associated with vaccine hesitancy in the UK (WHO, 2021). In the light of the foregoing literature, not much has focused on university students' experiences on COVID-19 vaccine uptake.

Furthermore, literature indicates that there are significant variations in COVID-19 vaccine acceptance across different countries (Malik et al., 2020; Marielle et al., 2020; Mchome et al., 2021; Ning et al., 2021). Socio-demographic determinants of health significantly influence vaccine acceptance and risk perception. Such information is critical for context-specific implementation of COVID-19 vaccination programs, with governments being encouraged to understand community concerns and identify strategies that will support engagement to support effective launching of new vaccines. Circumstantial conditions—such as the pandemic context, and specifically disease prevalence in a particular population—can also affect vaccination intentions. In addition, perceived severity of COVID-19 and perceived vaccine safety were the two strongest determinants of vaccine acceptance in a Finland study (Tiirinki et al., 2020). In Turkey and the UK, acceptance rates of vaccines were found to be higher among study participants who believed in the natural origin of COVID-19, in contrast to those who believed that the disease was generated by humans (Ning et al., 2021).

Studies in the African setting show that the level of vaccine acceptance was generally medium (Edwards et al., 2021; Chadwick et al., 2021; Karlsson et al., 2020; Salali, and Uysal, 2020; Echoru, 2021; WHO, 2022). For instance, vaccine acceptance was at 53.6% and risk perception was at 46.7% in Western Uganda (Echoru, 2021). Also, males, those with a tertiary education, students and non-salary earners were likely to accept the vaccine (*ibid.*). The Botswana government adopted a multi-pronged strategy as a part of the response to COVID-19. One of the pillars of the control measures of the COVID-19 epidemic included vaccinating 276,078 (16.5%) of the targeted population in the 1st phase of the vaccination campaign (Tlale et al. 2022).

In Tanzania, studies and media reports indicated that there were mixed views in the acceptance of COVID-19 vaccines at the inception. However, in 2021 the government decided to adopt and acquire vaccines as the way forward, encouraging various institutions to encourage people to be vaccinated (URT, 2021; Kamanyi, 2022). Like other institutions in the country, universities were also urged

to ensure students are encouraged to vaccinate for COVID-19. Among these universities is the University of Dar es Salaam (UDSM), which is the oldest in the country. Also, the UDSM had a unique experience of having part of its hostels used as a quarantine destination for international travellers. Plus, it was among the most active by having its Health Centre at the frontline in offering vaccination services. All these make it a good case fit to explore students' experiences towards COVID-19 vaccine uptake, and the associated challenges.

4. Symbolic Interactionism (SI) Theory

This paper is guided by the symbolic interactionism (SI) theory. Propounded by mainly two American sociologists, George Herbert Mead (1863-1931) and Charles Horton Cooley (1864-1929), but contributed to by several other thinkers, the theory posits that individuals have the power to create and recreate meaning through the interpretation of the symbolic world around them (Herman & Larry, 1994). This theory is pertinent in understanding how students, as active actors, responded to COVID-19 information and took action, including their decision on vaccine uptake. By applying the SI theory, the study sought to underscore the way students interpreted and asserted value to vaccination as a means to respond to COVID-19 prevention.

This theory is particularly grounded on an assumption that human action and interaction are understandable only through the exchange of meaningful communication symbols (Herman & Larry, 1994). Hence, individuals—in this case students—are seen as dynamic, creative and actively involved in the process of creating their meanings through interactions in their everyday life at the university. As Blumer (1986) succinctly argues, students are not mere receptors of impulses, in this case, announcements, guidelines or directives. They hear the directives but place meanings on them, as they engage in interactions, hence defining and redefining their course of action. COVID-19 vaccines are perceived as symbols of rescue against the disease. However, students were faced by active social interactions among themselves and with staff members, the consequence of which resulted in meaning attachment regardless of other factors compounding either acceptance, hesitancy and/or resistance towards COVID-19 vaccines.

Therefore, the SI theory was seen more relevant over other theories and conceptual frameworks because of its power to unearth the hidden meanings of action or choices (Goffman, 1961; Hiltunen & Biesanz, 1978). As aforementioned, this has been a struggle for many studies that have ended their analyses at the face value of reality without unpacking what is really behind their findings: in this case the observed hesitancy and/or resistance towards COVID-19 vaccines.

5. Methodology

The study applied a qualitative approach in data generation. The qualitative approach was selected for its power in uncovering realities beyond what we can observe (Babbie & Mouton, 2001; Bailey, 1994; 1982; Bello & Amtut, 2021; Biher, 2017). The study was conducted at the UDSM between 2021 and 2022.

The UDSM was selected purposely for two reasons. First, its long-time experience as a university in Tanzania (over 60 years of existence), assuming it has more experience in disaster and crisis management strategies; secondly, part of the university hostels (Magufuli Hostel) was designated as quarantine area for international travellers, something that made it more appropriate study area in view of the country's recourse strategies against the COVID-19 pandemic. The College of Social Sciences (CoSS) is the second oldest within UDSM main campus, and has many undergraduate programmes; including hosting some university-level courses that lead to overcrowded lecture and seminar venues, hence providing a good case for the study.

The findings of the study were mainly generated through key informant interviews (KIIs), small group discussions (SGDs), documentary reviews and participant observations during the entire COVID-19 phases at the UDSM. SGDs were more appropriate in response to adhering to social distancing; hence a small group was more manageable instead of a larger group. Informal conversations were also part of the methods used to enrich the discussion of the findings. KIIs and SGDs were mainly conducted with students mixed by sex and degree programs at the undergraduate level, and staff members of the UDSM. Other key informants were members of staff who were interviewed for the purpose of triangulating information under the understating that students are in continuous interactions with their lecturers, and because the same lecturers were responsible in guiding students on best practices during lectures and seminars, hence having a lot to share on the experiences of students. All participants for KIIs and SGDs were purposively sampled. Student participants were undergraduates who mainly face space challenges (overcrowding) during lecture hours, and in their hostels. The researcher sampled students across all years: from first year to third year. Members of staff were also selected purposively. The main criteria of inclusion were participants' interest in the study, being ready to share experiences, and having knowledge on the subject under study.

A total of 28 KIIs (15-males and 13-females) were conducted, whereby 20 KIIs were for students (11 males and 9 females); and 8 KIIs (4 males and 4 females) with staff members. In addition, a total of 8 SGDs were carried out (with mixed student participants) from the CoSS, particularly from the departments of Sociology and Anthropology, and Political Science and Public Administration. Each group had at least 4 students, making a total of 32 participants. The study also covered numerous documentary reviews including global, regional, and national reports; in addition to academic studies that cover the entire COVID-19 period to the present.

Data was captured using note-taking approach instead of audio recorders, which would limit freedom of expression given the uniqueness of the topic. All notes were typed and translated into English; and entered into NVivo 12 software that the researcher used to thematically organize them ready for interpretation and reporting.

6. Findings and Discussion

6.1 Students' Understanding and Source of Information on COVID-19 Pandemic

The study found out across all KIIs, SGDs and observations that there were a variety of sources of information about COVID-19 that sculpted the understanding of the pandemic to students. As stipulated in other studies involving students and youths in other contexts (Plakhotnik et al., 2021; Aleksander, 2020; Shagembe et al. 2022), sources of information have a huge impact on how students understand the COVID-19 pandemic. This study revealed that the sources of information uncovering the understanding on COVID-19 among the students included televisions, radios, social media, and other informal sources of information such as hearsay and rumours. For example, WHO estimated around 312 radio stations and 130 televisions across the country have been broadcasting public awareness message on COVID-19. The majority of the participants reiterated social media as the leading source of information. Notably, most of the social media accounts likely to be followed by many youths are informal accounts that do not necessarily pay much attention on verified national news, but rather on gossips and misinformation as noted by one student:

"I first got information about COVID-19 from Instagram; then [...after a month or more] I saw from TBC-1¹ that there is a disease called Corona, which had started in China and then spread all over the world, including Tanzania. However, I got information before it even came in our country" (SDG/ Student/ Mixed/ CoSS/ UDSM/2022).

Another student corroborated the narrative, saying:

I got the information from Instagram and Facebook at the same time: that there was Corona in Tanzania. However, at first I did not trust the information because my Instagram friend posted about it in a joking manner; so I thought the spread in Tanzania was not real" (SDG/Student/ Mixed/UDSM/2022).

The narratives reveal that in the social media there were some information about the disease that were shared in a less serious way, but as a part of maintaining peer interests on joking with each other. However, the first narration shows that the student got the information even before the disease was reported in Tanzania. Hence, social-media-based information on COVID-19 mainly added to the confusion rather than straight-forward answers among students, though they are generally easy to flow and can reach a significant number of students. The government pronouncing the existence of the disease was a positive move, albeit a bit late for the students.

Findings have also revealed that, some understandings were shaped by traditional values. It was evident that some students believed that the disease is normal like any other diseases connected to breathing, such as pneumonia, thereby making the believers in this category take traditional ways of preventive measures. These include ways like steaming using herbal concoctions, including (but not limited to)

¹ Tanzania Broadcasting Corporation

ginger, onions and lemon to treat themselves: it was believed that by so doing could enable one ease breathing problems. To others, the disease was alleged to be a new version of flu that was mostly found in China, and not in Tanzania.

Hence, this paper observed mixed sources of information and nuanced understanding of the COVID-19 disease. The mix flushes between reality and rumour-mongering made uncertainty manifest itself as a significant symbolic disposition among students. Meanings were created and recreated all along the period, and this has not stopped.

6.2 UDSM Students' Mundane Experiences of COVID-19: An Interactive Social Construction of Response to Crises

A myriad of experiences was expressed by students. The socially construed realities were displayed in the entire study as experienced during the pandemic. Interactions with other students, staff and relatives at home meant students had various ways of experiencing and explaining the COVID-19 pandemic. Some were of the view that COVID-19 would succumb and cease to exist within a short period of time as a result of intensive coping mechanisms, such as washing hands, wearing masks, keeping social distance and sanitizing. Others still held to the notion that COVID-19 is for rich countries, and not for poor ones like Tanzania. Some students believed it was a serious health threat, but mainly for the elderly and those with poor immunity for various reasons.

Still, what seemed common to all students was looking for some convenient answers that would relieve them from being victims of the disease. While answers exhibited a level of resilience and adaptive agency needed in handling crisis situations (Kamanyi, 2020), there was a sense of temporary informed negligence and denial as mechanism to disclaim individual susceptibility to the disease. To some students, though, it was part of their daily duty to take into account the coping mechanisms seriously as advised by medical doctors and health personnel. Partly, as aforementioned, this was due to the fact that some of them had relatives who had already been affected by the disease, as one of the staff responded to a question as to why some students positively accepted medical advice on COVID-19:

“Some students share the same experience and dilemma as I do...I know the COVID-19 crisis is real, and it has killed many people outside Tanzania; and that some are in bad conditions in Tanzania ... my aunt is also one of the people who has been affected by COVID-19, therefore, it is a real trauma... I consider it as a dangerous disease, hence me wearing a mask and washing hands are part and parcel of my life, because at home we have one who is suffering and can't afford to have more others” (KII/Staff/CoSS/UDSM/2022).

The experience of the member of staff above reveals that disease cases were not apparent to all people; hence, some did not believe on the negative effects caused by the pandemic. However, to those who were already affected by the disease in any form—whether personally as individual casualties or being relative to victims or survivors of the disease—were protecting themselves from its spread.

The study noted through KIIs and SGDs that students took various measures to protect themselves against infections. Some students adhered to strategies directed from above, while others did not adhere much to strategies set due to ineffective monitoring. For instance, in the hostels many continued to share beds in their respective rooms; for instance, a room with a capacity to accommodate 4 students could have up to 8: a coping strategy that students refer to as '*kubeba and kubebana*'² to save living costs in higher learning institutions (HLI) after the massification of higher learning education (Ndaluka & Kamanyi, 2011). Somehow, the situation was the same in lecture rooms due to having more students than room capacities as noted by one student:

"I always protect myself against COVID-19 by keeping social distance. However, in the classrooms it becomes a challenge due to current congestions ... but also I wear masks when necessary; and of course, I avoid shaking hands with people though it is a challenge too due to the culture of sharing hands being the most favoured way of greeting each other among friends." (KII/ Student/ CoSS/UDSM/2022).

We noted that the university administration was encouraging students and staff to take precautions, especially by wearing masks, washing hands, keeping social distance where possible, and staff working from home when it was not necessary to be physically present at the university. Awareness creation was enforced through encouraging all staff to take few minutes at the beginning and end of lectures to remind students of the prevention mechanisms and encourage taking measures as required.

Furthermore, the study revealed that posters indicating proper ways of wearing masks were shared across the university, and water facilities were accessible in most areas of the university. Yet, to the students, this did not translate to automatic acceptance of the prevention mechanisms against the COVID-19 pandemic. Some were in a rejection mode, while others corresponded in line with their belief systems. Several socially rooted factors such as meanings attached to the pandemic, its symptomatic consequences, and assumption about its existence defined how students experienced it. However, students live in a community with interactions, all of which impacted their experiences. Hence, imitation, copying, rejection, dismissing and disguise regarding vaccination plus other preventive measures were all part of what was observed as mundane experiences of students during the COVID-19 period, specifically during the years 2020–2022.

6.3 Preventive Undertakings by the University Administration and Reactions from Students

It was evident that the UDSM undertook a focused approach to develop and disseminate COVID-19 guidelines, standard operating procedures, job aids, standards and protocols as preventive measures against the spread on the pandemic.

² Swahili parlance referring to the students' practice of accommodating one another in a manner that exceeds the carrying capacity of the rooms in the hostels.

The university administration supported the placing of posters across important areas, such as the entrances to offices, cafeteria, some of the class venues and the most-used sub-ways. These instigated students to get a glimpse on the measures that were once given by the Ministry responsible for health that apprised on social distancing, wearing masks, avoiding overcrowded environment, washing hands with clean water and soap, and using hand sanitizers. However, the findings show that students did not robotically respond to the measures as some paid minimal attention to them due to their interpretation of the severity of the pandemic.

Additionally, the university administration took proactive measures in responding to the coronavirus pandemic to prepare for a possibility of more fatal pandemic waves, by constructing semi-permanent water infrastructure around all of the university and its constituent colleges and other public meeting venues around the campus.³ These efforts relate to the instruction by the GoT to its institutions to protect their communities. Other mechanisms adopted by the university included encouraging more digital means of communicating with students: where possible, virtual lectures were encouraged, though this was limited by the lack of sufficient infrastructure.

Students were positive about the measure put in place by the university as indicated in the view below:

“In the epoch of COVID-19, things changed ... some good, others bad..., the administration assisted much on taking preventing measures... but we liked being free from classes because in that period lecture hours were reduced; as a result, we were free from tight schedules...” (KII/Student/PSPA/UDSM/2022)

From the above quote, it seems that some students were happy with some of the restrictions because they meant making the timetable more flexible. Some staff members actually claimed that some students viewed this flexibility as an advantage by taking time off under the pretext of being sick or attending to a roommate. All this resulted into mixed positive and negative ramifications: some ended up being pregnant, while others finished having to postpone studies, succumbing to supplementary exams and/or carry-overs, or discontinuation due avoiding classes.

6.4 Students' Adaptation and Views on COVID-19 Medical Recourse: A Nuanced Medical Pluralism Approach

As pointed earlier, there was a nuanced reaction to the COVID-19 response in terms of medical recourses. Literature (James, 2021; Jiwani, Antiporta, 2020; Mchome, 2021., Plakhotnik et al., 2021; Poehling et al., 2010; Quinn et al., 2020; Ryan et al., 2019; Sandler et al., 2018; Sherman, 2020) and practice indicate that students, like other people, were not free from such influences in a pluralistic medical intervention by heeding into both biomedical and alternative medicine. Under alternative medicine, students resorted to traditional remedies.

³These included colleges, libraries—both old and new cafeteria, hostels, office entrances, some car partaking, around banks in the university and at the University chapel and mosque.

According to Mchome et al. (2021) most people's knowledge on precautions against COVID-19 overlapped to a large extent with biomedical concepts, and a majority used them in their daily practices. Various narratives suggested that people protected themselves and their families against COVID-19 through engaging in frequent hand-washing with running water and soap; using hand sanitizers; installing flowing water at the entrance of their homes for people to wash hands before entering their homes; restricting visitors from visiting; wearing masks (commonly named '*barakoa*', i.e., locally made face-masks); avoiding crowded places and shaking hands while greeting people: all these as instructed by the government through different mass media. However, the study also noted that multiple other localized approaches were adopted. As noted by Harris (2020), the application of natural remedies and practices was highly adopted by a larger majority of Tanzanians, especially in the rural areas, and a considerable portion of people in the urban areas, including university students at the UDSM. Logically, there was fear and uncertainty due to the distrust of the aetiology of the disease, and the measures against it from the West. Yet, the country was caught up by an impasse by the demand from the same global society that, to continue getting aid and allow the usual flow of tourists and trade exchanges, it was necessary for Tanzania to adhere to the global public health standards instituted by the WHO.

On the other hand, with an estimated drop of the economy at 4% if lockdowns were implemented, and the extent of economic damage this would cause, it meant the government had to choose which measures to deploy from the West, and which local ones to use to counter the disease; thus, letting people adopt local remedies and mixing them with biomedical approaches. Therefore, alternative measures were inevitable because of the fact that there had not been any universal scientifically approved cure for the coronavirus. Hence, natural remedies were politically addressed and motivated by both political and religious leaders through mass media, and were greatly accepted by the majority, including some students of the UDSM.

6.5 Dilemmatic Experiences Among the Vaccinated and Unvaccinated Students

It is believed that there was a notably small number⁴ of students who were vaccinated at the UDSM. The main reasons for this can be attributed to their trust on the efficacy of COVID-19 vaccines as proved in other countries, and to some people within the country. For them, the decision to vaccinate was to protect oneself against the threats of COVID-19, which includes death. Vaccines are believed to minimized the danger of diseases associated with the loss of immunity engendered by the disease, which comprised of harsh flue, difficult breathing, etc. However, a decision to take vaccination was also informed by the health status of a student. It was elaborated that people having stubborn illnesses like HIV/AIDS, asthma, tuberculosis and others were prone to the virus due to their compromised health status. In view of the

⁴ This study could not have numerical evidence of this claim. However, interviews with students and staff indicated that there was a low level of the acceptance of COVID-19 vaccination among university students.

possibility for COVID-19 vaccines having the potential to protect them from falling victim to corona virus, the said students decided to vaccinate. Hence, a decision to vaccinate was not haphazard; rather a well-thought action.

The study further noted that decisions by students to vaccinate or not were influenced by other people as well. It was established that some of the influence came from key figures campaigning that COVID-19 vaccination was an important and safe measure for one's safety. For instance, there were testimonial messages from football players, music artists, movie actors, and political leaders, including the President of the United Republic of Tanzania, Hon. Samia Suluhu Hassan. Such testimonies were powerful influencers for some students in their decisions on taking COVID-19 vaccines. One student narrated the following:

"I am vaccinated because I like protecting my health, and I heard from different campaigns that vaccination is the best way to protect oneself against the novel Coronavirus, so I believe now I am safe after being vaccinated. I am just feeling okay, just as normal as usual... how could I not accept it when my parents and my President have taken the jab?!" (KII/Student/SOA/UDSM/2022).

The study noted that external influences comprised of international or global politics targeting to encourage people globally to accept and take COVID-19 vaccines to avoid its scourge, including the restrictions that one could not travel across national borders until that person confirms being vaccinated. Students from abroad, on the other hand, were compelled to partake vaccines as a subscription either to their home country policies, or those of the international agencies they were working with, or both. This indicates both voluntary and involuntary influences to their decisions on whether to vaccinate.

The myths about the nature and efficiency of vaccines were rampant; and more serious was the fact that there were important figures—such as political leaders—who had campaigned against the taking COVID-19 vaccines. Having mixed statements from leaders—both political, religious and traditional—made the whole issue a bit complex. However, since the statements were not legally binding in any way, it remained to individual students to make decisions. One staff member had the following view:

Of course, I trusted President Magufuli because he had the same questioning antique like what I had about the vaccines ... if the Westerners were able to come up with COVID-19 vaccines in such a short time, they should have been able to find vaccines for HIV/AIDs ..., so I will not be vaccinated because I think these are not vaccines; later they will be a disaster to Africans (KII/Staff/SOA/UDSM/2022).

Along with the myths surrounding the nature of the COVID-19 vaccines, students hinted that there were some events indicating that there were complications associated with the intake of these vaccines. Some news—regardless of whether misinformation or conspiratorial—talked about cases of blood clotting, and periodic fevers observed in some people who took COVID-19 vaccines. Also, conflicting views on the efficacy of one vaccine type against the other made the whole issue complicated for students to reach a decision. The study further revealed that, those who vaccinated against COVID-19 became confident of not being

vulnerable to the coronavirus, and thus they performed their daily activities more efficiently as opposed to those who were not vaccinated. However, again, this was a complex point of view since, while the vaccinated believed the non-vaccinated were potential victims of the COVID-19; the non-vaccinated believed the vaccinated were potential victims of the side-effects of the vaccine itself.

7. Conclusion and Recommendations

The experiences and narratives of students in responding to the COVID-19 pandemic were multiple, complex and asymmetrical. The study has revealed discourses, accounts and framings around the COVID-19 crisis that elucidate students' responses, and why they decided what they did. The students' experiences illuminated the deeply rooted dilemma of disaster management at the UDSM, whereby there was no specific framing of what course of actions to take in times of crises such as in the COVID-19 pandemic.

This lack of coherent mechanisms to address such crises in a university context is also illuminated by the fact that most of the information and actions in response to the pandemic, including uptake of vaccines, were *ad hoc* in nature. It is clear from the study findings that the students' experiences and meanings they attached to the vaccines were in relation to the various treatises available on the vaccines; such as the scientific ineptitude of the vaccines; their negative side-effects; myths and stories that vaccination was a deliberate tool of depopulation by the imperialists to extend their domination of the global south, etc.

The paper recommends that it is important for health educators and all relevant actors to strengthen public health education especially in universities. Also, universities should institute disaster management frameworks that include risk communication messages to make students aware of general and specific risks associated with infectious pandemics.

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