Prevalence of Caution Fatigue in Relation to Adherence to COVID-19 Pandemic Safety Guidelines in Kenya

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Abstract: COVID-19 has infected over 132 million people worldwide since its outbreak in China in November 2019, killing at least 2.8 million people. Around the world, the pandemic has had significant health and social - economic consequences. Kenya's government implemented several protective measures in an effort to stem the spread of the COVID-19 pandemic. Despite these precautions, the corona virus continues to spread at an alarming rate in Kenya. The aim of this study was to determine prevalence of caution fatigue in adherence to COVID 19 safety measures in Kenya. The study utilized descriptive survey research design. The study population consisted of 400 respondents who were sampled using quota sampling technique. The data was collected using a questionnaire that was administered through online social media platforms obtaining both quantitative and qualitative data. Statistical Package for Social Sciences (SPSS) version 25.0, aided in analyzing quantitative data using descriptive statistics namely frequencies, percentages, means, standard deviations. Qualitative data was categorized thematically and described using suitable descriptive terms that focused on areas of concern. The analysis paid particular attention to the prevalence of caution fatigue in relation to COVID-19 safety measures. The study established that there is a high prevalence of caution fatigue with regard to COVID-19 safety measures. Men were found to have a higher prevalence of caution fatigue compared to women, in relation to age 20-39 - year group had the highest level of caution fatigue. Respondents working in informal jua kali sector presented higher levels of caution fatigue compared to their counterparts in the formal sector. The study further, established that respondents living in urban areas had higher caution fatigue than those in the rural setting. People who felt less anxious and vulnerable about COVID-19 had higher prevalence of caution fatigue. The study recommends that public vigilance on COVID-19 needs to be reinvigorated and put in place caution fatigue mitigation measures through programs and health awareness campaigns that target people who were found to have high prevalence of caution fatigue. Lastly, there is need to create public awareness on the possible fatigue experience as a psychological response during a pandemic, and suggest ways to cope and deal with physical and mental fatigue so as to enhance personal wellbeing of Kenvan citizens' during this COVID 19 pandemic.

Keywords: COVID 19, Pandemic, Caution fatigue, Safety measures

1. Introduction

The COVID-19 pandemic is a public health emergency with serious health and economic consequences. Since its outbreak in China in November 2019, the disease has infected over 132 million people worldwide, killed at least 2.8 million people, and has been registered in 225 countries and territories, with a global Case Fatality Rate of (CFR of 2.2%) (World Health Organization [WHO], 2021). A compiled list of COVID 19 cases around the world as follows: Eastern Mediterranean (5%), Europe (35%), America (44%), Southeast Asia (12%), and Western Pacific (12%). The United States of America, Italy, Brazil, India, and Russia are the countries most affected, with more than 300, 000 new cases registered, while France, Turkey, Poland, Italy, and Germany each have more than 100, 000 new cases (WHO, 2021).

Sub - Saharan Africa region accounts for 3.3% of all cases reported globally with over 4.2M infections and has claimed the lives of at least 110, 000 people with CFR of 2.7%. (Centre for Disease [CDC] Africa, 2021). Twenty - one of the countries actively reporting COVID-19 epidemiologic data have CFR higher than the global average of 2.2 percent: Sudan (6.5%), Egypt (5.9%), Somalia (4.6%), Liberia (4.2%), Zimbabwe (4.1%), Comoros (4%), Eswatini (3.9%), Mali (3.8%), Niger (3.7%), Chad (3.6%), Tunisia (3.5%), South Africa (3.4%), Malawi (3.3%), Gambia (3%), Lesotho (3%), Senegal (2.7%) (CDC Africa 2021). According to reports, COVID-19 deaths in Africa have increased by 40%, bringing the continent's death toll to over 100, 000 since the first case was recorded on February 14, 2020. Africa's fatality rate has risen to 2.7% which is now well above the global average with thirty - two countries reporting a rise in deaths, while 21 countries reported flat or falling rates (WHO 2021).

Soon after the COVID-19 outbreak was declared a pandemic, the WHO issued global health guidelines to stem the crisis, including social distancing, hand washing, mask use, and avoiding touching the mouth, eye, and nose, border closures and lockdowns among other Non - Pharmaceutical Interventions (NPIs) (Zhao et al., 2020). In order to reduce the spread of the coronavirus, most countries around the world, including Kenya, have implemented NPIs which have encouraged or legally required people to change their behaviors in an attempt to protect themselves and others from the disease (Smith, 2021). Despite such guidelines, evidence indicates that stringency of measures has varied over time and across geographical regions which could be attributed to the spread of the virus. The fact that people are experiencing weariness in practicing the WHO guidelines seems to have contributed to the super spread of the virus (Zhao et al., 2020).

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The CDC Africa COVID 19 report of 30th March 2021, reported an increase of COVID-19 infections in Ethiopia (19%), Kenya (13%), South Africa (11%), Tunisia (7%), Libya (7%) and Egypt (7%). As a result, Kenya is second in Africa in terms of new COVID-19 infections. In February, 5, 200 new cases were reported, bringing the total number of confirmed cases to 139, 842, the highest number ever recorded in the country (Ministry of Health [MOH], 2021). According to health briefs by MOH, 25th March of 2021 indicated that Kenya had hit its peak positivity rate for COVID-19 cases since the beginning of the pandemic, as well as the highest number of deaths per day. In January 2021, the country had 4, 380 new cases, with a positivity rate of 2.6%, and by end of March there were 15, 916 new cases, with a positivity rate of 22%. This positivity rate was higher than that of Africa which stood at 10%. COVID 19 infections, recoveries and deaths in Kenya have been recorded for each of the 47 counties. According to RCMRD Website Nairobi County which is also the capital city of Kenya is the epicenter of the coronavirus pandemic. As of April 17th, 2021, Nairobi County registered most of the confirmed cumulative COVID-19 cases in the country at 53, 638 which corresponds to around 46% of the total cases in Kenya and Mombasa County recorded the second highest at 9, 559 cases. Counties, within the Nairobi Metropolitan Region, Kiambu County was leading (7, 759), Nakuru (5, 999), Kajiado (3, 510) and Machakos at 3, 131 necessitated cessations of movement in and out of these counties. Counties outside the Nairobi Metropolitan region Mombasa County leads with the highest infections at 9, 599, followed by UasinGishu (3, 365), Busia (3, 111), Kilifi (2, 896), Kisumu (2, 366) while the other counties had less than 2000 cases of infection. These statistics necessitated the need to carry out a study if Kenyan citizens have encountered COVID-19 caution fatigue thus putting their guard down in observing the COVID-19 safety protocols.

As the country continued to experience increased COVID 19 infections in the month of January, February and into March 2021, the Kenyan Government on March 12th 2021 introduced a number of measures to contain the spread of the virus. This includes partial lock down in the country with cessation of movement in and out of Nairobi, Kiambu, Kajiado, Nakuru and Machakos counties. Curfew time in the five counties was set to begin from 8pm to 4am for two months. In addition, in person worship for churches was suspended, restaurants and eateries in the five counties were asked to provide takeaway services only and were banned from selling alcohol, while bars were suspended from operating. For the other 42 counties the curfew hours remained from 10pm to 4am, in person worship was allowed with strict observance of all the set health protocols and guidelines. For the entire country the president ordered closure of all learning institutions apart from secondary schools where the form fours were taking their final exams. He further outlawed political rallies for 30 days and put a cap on people attending religious or funeral events. The president directed all employers of private and government organizations to have their employees working from home until further notice, except those whose services cannot be provided remotely. (State of the Nation address 12th March, 2021). The preventive health control measures were revised and enforced once again since the citizens seemed to wane off from the healthy safety measures against COVID 19. This was informed by a spike of COVID 19 infections in the country suggesting a notion of caution fatigue. This study sought to determine the prevalence of the caution fatigue on the COVID 19 safety measures among residents in Nairobi Metropolitan (Red Zone) in relation to other counties outside the metropolitan region (Yellow Zone).

Currently, in Kenya, adherence to the COVID-19 pandemic protection measures response appears to be wanting, a situation known as caution fatigue. The WHO defines caution fatigue as a lack of desire to follow prescribed protective behaviors (WHO, 2020). Prior to the outbreak of the COVID-19 pandemic, Kenyans were unfamiliar with social distancing, use of face masks, and careful hand washing. Caution fatigue develops gradually, according to Ilesanmi, Bello, and Afolabi (2020), and is influenced by a variety of emotions and perceptions. Adding a few extra steps to our everyday safety routines is difficult enough; however, maintaining these steps as a long - term behavioral improvement is much more difficult, particularly when no one around us is ill or the consequences of such acts cannot be quantified. When stressful conditions last too long, humans adopt various coping strategies to compensate for the challenge of making long - term behavioral changes, which can lead to exhaustion and lack of motivation (Ilesanmi, Bello, and Afolabi, 2020). The multiple factors at play may include a decrease in the perceived threat from the virus as people become accustomed to its presence, despite epidemiological evidence suggesting an increase in risk (WHO, 2020). Therefore, the need to conduct this study.

Based on aggregated survey results, the regional director of WHO cautioned against an increase in COVID-19 fatigue in Europe, estimating levels of fatigue to be as high as 60% in some areas (WHO, 2020). A study by Petherick, Goldszmidt, Eduardo, Andrade, Rodrigo, Pott and Wood (2020) indicate that there are signs of "pandemic - policy fatigue" which has raised worldwide concerns. Similarly, anecdotal evidence from a group survey in Kano State, Nigeria, suggests that COVID-19 - related fear has subsided. Many people fail to wear their face masks before they come into contact with someone who has COVID-19 - like symptoms, such as coughing. This reflects the general public's reaction to COVID-19 prevention initiatives in Nigeria at the moment. Apart from such institutions such as hospitals and commercial banks, a visit to major markets in African cities poses a situation in which wearing a mask seems to be an odd thing to do because trade has continued as it did before the deadly virus (Ilesanmi, Bello & Afolabi, 2020). The contagious nature of COVID 19 requires that people know that one's acts have an effect on other people far beyond one's immediate circle. As a result, the consequences of any action or inaction are amplified throughout the country. People are becoming less positive about adopting the prescribed recommendations and are becoming more relaxed. Such indifference can result in a new surge or spike in COVID 19 transmission, potentially increasing morbidity and mortality rates while also increasing the risk of re infection among previously infected people. Following this line of reasoning, it is abundantly evident that COVID-19 caution fatigue is a significant public health concern in Kenya, Africa, and the rest of the world. This necessitated

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the need to determine the prevalence of caution fatigue in Kenya and identification of caution fatigue mitigation measures.

2. Statement of the Problem

The CDC Africa COVID 19 report of 30th March 2021, reported an increase of COVID-19 infections in Ethiopia (19%), Kenya (13%), South Africa (11%), Tunisia (7%), Libya (7%) and Egypt (7%). As a result, Kenya is second in Africa in terms of new COVID-19 infections. In February 2021, 5, 200 new cases were reported, bringing the total number of confirmed cases to 139, 842, the highest number ever recorded in the country (MOH, 2021). According to health briefs by MOH, 25th March of 2021 indicated that Kenya had hit its peak positivity rate for COVID-19 cases since the beginning of the pandemic, as well as the highest number of deaths recorded per day. In January 2021, the country had 4, 380 new cases, with a positivity rate of 2.6%, and by end of March 2021 there were 15, 916 new cases, with a positivity rate of 22%. This positivity rate was higher than that of Africa which stood at 10%. These statistics necessitates the need to carry out a study if Kenyan citizens have encountered COVID-19 caution fatigue thus putting their guard down in observing the COVID-19 safety protocols. The MOH has raised concern of its populations caution fatigue to the adherence of the laid down COVID-19 health protocols and guidelines. During its daily briefing of COVID infections in the country, the Cabinet secretary in his desire to encourage Kenyan citizens to adhere to all the set safety protocols came up with the famous phrase "If you treat this disease normally it will treat you abnormally. " This phrase was widely used in the year 2020 and it's for this reason that this study attempted to determine the prevalence of COVID 19 caution fatigue in the red and yellow zones in the country in relation to socio demographic characteristics such age, gender, education, place of residence, access to medical cover, underlying medical conditions, marital and occupational status.

General Objective

The study sought to investigate the prevalence of caution fatigue in relation socio - demographic characteristics (gender, age, place of residence, education, occupation status, marital status, access to medical cover and underlying medical conditions) that influence adherence to COVID-19 safety measures in Kenya.

3. Literature Review

"One thing scientist know with certainty is that viruses don't get pandemic fatigue, but people do" (Besser, 2020). As the COVID-19 pandemic lingers, signs of caution fatigue have raised worldwide concerns. But the phenomenon itself is yet to be thoroughly defined, documented, and delved into. This section reviews literature on the influence of gender, sex, age and place of residence, access to medical cover, underlying medical conditions, marital and occupational status on prevalence of caution fatigue.

a) Prevalence of caution fatigue in relation to sex and gender

Understanding the role sex and gender are playing in the

COVID-19 outbreak is essential in understanding caution fatigue. This is important in helping to build an effective, equitable response to the pandemic (WHO, 2020). According to Morgul et al (2020), gender and sex are important factors in deciding who is at risk of infection, serious illness, and death from COVID 19. People's risk of illness and death from COVID 19 is influenced by differences in their bodies due to their sex differences. To attribute gender differences in COVID 19 outcome solely to biology however, ignores the role that social environment, structure and norms are playing and obscures the actions that can be taken to address these drivers. A study by Petherick et al. (2020) revealed that caution fatigue has been widespread across societal groups within countries. The researchers considered differences in initial compliance on physical distancing, initial compliance was 0.19 points higher for women than for men (t = 14.7, d. f. = 15, 576, P<0.001, 95%C1 [0.16, 0.21]), (M=3.69, SD =1.04). These findings were consistent with the evidence that women are in general more risk - averse, in addition to the fact that women, adhered more and maintained greater relative compliance over time to the safety measures (Petherick et al.2020).

Griffith et al. (2020) published a study called biopsychosocial approach to understanding sex differences in mortality rate. Men and women were compared in terms of behavioral and psychosocial factors. According to these researchers, men are more likely to participate in high - risk activities that increase their chances of contracting COVID-19. Early in the first wave of COVID-19 cases in the United States, polls revealed gender disparities in the pandemic's perceived seriousness. Another research in the United States found that men were more likely than women to downplay the virus's ability to affect them, and less men than women reported avoiding large public gatherings or near physical contact with anyone else. This study was interested in finding out whether the same scenario is happening in Kenya. Studies have revealed men have higher rates of activities linked to COVID-19 infections and mortality, such as tobacco use and alcohol intake, when compared to women (Griffith et al.2020). Handwashing, social distancing, wearing masks, and successfully and proactively seeking medical aid are also lower among men than among women. Many men have been socialized to hide their fears, and it's interesting to think about how this affects men's reactions to COVID-19 (Griffith et al, 2020). It's especially necessary to target men who react aggressively and angrily to threats like COVID-19. People who have this reaction "try to underestimate risk and are immune to risk mitigation policies," according to research, which is problematic when trying to encourage social distancing and other pandemic controls. These socially developed habits lower the understanding of vulnerability and seriousness, which leads to less use of preventive measures like handwashing and demonstrations regarding pandemic - related prohibitions. With the above in mind, this study goes deeper in exploring how sex and gender can contribute to caution fatigue.

b) Prevalence of caution fatigue by age

Theory suggests that older people, who tend to be more physically and socially vulnerable may experience weaker resilience to restrictive policies, and consequently adhere less to safety measures over time. Yet as the pandemic has

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continued, knowledge of age - associated risk has grown, as has older people's pessimism regarding the severity of the disease in case of contamination, implying the opposite expectation of steadier adherence (Griffith et al, 2020). Despite the fact that older men considered their COVID-19 risks to be higher than younger men's, older men made the fewest behavioral improvements across age and gender groups, according to a study conducted in the United States (Griffith et al, 2020). According to Petherick et al. (2020) age was predictor of caution fatigue with the older population being more cautious than the younger ones 0.28 points higher for the oldest age quintile within each country than the youngest (t=16.1, d. f=7.776, p<0.001, 95%C1 [0.25, 0.31]. These findings were consistent with the evidence that the elderly is in general more risk - averse, they adhered more and maintained greater relative compliance of the safety measures over time.

This study tries to find out if age is a contributor to adherence to COVID-19 safety guidelines. According to a study conducted on Kenyan youth by Karijo et al (2020), 31% of the youth (1 in every 3) believe they are at low or no risk of being infected with COVID-19. The low risk was linked to their lack of prior travel experience and their faith in God's protection. These figures differed from those found in a previous study in Nairobi's informal settlement where about a third of participants felt they were at high risk of infection (Austrian et al, 2020). In regard to observing the safety protocols the study by Karijo et al indicates that most vouths were adhering to safety measures for instance, the vouth avoided unnecessary travel (99%), washed their hands more routinely (98%) and wore masks (98%). Some of those who did not practice protective habits cited a water shortage or soap, the price of masks, distress when donning masks, and the cost of sanitizers as barriers to doing so. It was therefore important for this study one year down the line to determine if the youths in Kenya adhere to COVID-19 safety measures. According to a study by Solomou and Constantinidou (2020) to determine whether age predicted compliance with the safety measures. Women and participants 30 years and older were more engaged in observing safety measures than men or younger participants under the age of 30. In comparison to females and adults over 30, younger adults and males showed lower adherence to safety measures. This study was interested in finding out if age differences have a role to play in adherence of COVID-19 safety measures in Kenya.

c) Prevalence of caution fatigue by place of residence

Another research emphasized the critical role played by where you live. In a comparison of counties with predominantly black or predominantly white populations, the COVID-19 infection rate was three times higher and the death rate was six times higher in counties with predominantly black populations. Some controversial narratives have arisen in urban areas with high numbers of black residents of low socioeconomic status, blaming the men and women who live in these areas for their high rates of COVID-19 rather than the policies or systems that produce these conditions (Griffith et al.2020). The risk of exposure is especially high in Kenya's urban slums which are densely populated, have limited access to clean water, sharing sanitation facilities and a high degree of social mixing all of which may contribute to the virus's spread (Austrin et al, 2020). There might be high levels of caution fatigue among the residents since there are not in a position to fully implement the COVID 19 safety measures. This study therefore sought to determine the prevalence of caution fatigue in the urban areas compared to the rural areas in Kenya as well as identify if the place of residence is a contributing factor in prevalence of caution fatigue.

d) Prevalence of caution fatigue by Occupation and insurance cover

According to Papageorge (2021), higher income is correlated with higher levels of self - protective behaviors than lower income. Individuals in the upper income quintile were more likely to raise their self - protective activities than those in the lower income quintile such hand washing and mask wearing. These findings suggest that higher income is correlated with greater increases in self - protective behaviors, and that certain discrepancies are concentrated at the bottom of the income spectrum, implying that low income individuals may face particularly high costs in adopting such behaviors. This is due to the challenges that low - income respondent's face, which include increased employment and income losses as a result of the pandemic, as well as restricted access to work remotely from their homes. In addition, Turner - Musa, Ajayi, and Kemp (2020) found that people in the lowest income quintile those without formal jobs are more likely to become infected because most of them work in industries and may continue to work amid outbreaks in their communities or due to their economic circumstances. Workers who do not get paid sick leave are more likely to continue working even though they are sick. This might increase workers' proximity to COVID-19 - infected coworkers, or expose others to COVID-19 infected coworkers. Job loss during the COVID-19 pandemic is higher for those who are not in formal jobs, exacerbating the problem (Turner - Musa, Ajayi, & Kemp 2020). Taken collectively, this suggests that these individuals may have a tougher time practicing social distancing behaviors, potentially prolonging the pandemic (Papageorge 2021). Therefore, this study sought to identify prevalence of caution fatigue in occupation status between those employed and those in informal employment in Kenya. According to UN statistics, 55 percent of the world's four billion people lacked insurance or welfare care, with just around 20 percent of jobless workers receiving welfare payments. Gaps in health benefit coverage may also exacerbate the pandemic. (United Nations 2020). This study sought to identify the difference in caution fatigue between citizens with an insurance cover vis a vis those who do not have.

4. Materials and methods

The study conducted a baseline survey on the prevalence of caution fatigue on the current surge of COVID-19 pandemic in Kenya, the study used a descriptive survey research design. Due to the fact that COVID-19 pandemic affects all people from all cultures, age, religion, education backgrounds, social classes among others. In study population consisted of adult citizens in the 47 counties in Kenya. The counties were categorized into two zones, namely; red zone (5 counties) and yellow zones (42 counties). The red zone comprises of Nairobi, Machakos,

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Nakuru, Kajiado and Kiambu counties while the yellow zone consisted of all the remaining 42 counties. The COVID-19 infection rates in the yellow zones are appreciably lower and thus assumed to be manageable without resulting to stringent lockdown measures. These two zones formed a basis of comparisons on caution fatigue, as a possible contributing factor to the recent surge of the COVID-19 infections in the country. The sample size was determined using Krejie and Morgan (1971) sampling tables. According to Krejie and Morgan, in descriptive studies a population of one million and above can be adequately represented by a sample of at least 384 respondents. The study adopted quota sampling technique to draw a sample of 200 respondents from each of the zones, thus providing a sample of 400 respondents. Data collection used a questionnaire that was administered with the aid of online social media platforms from conveniently available pool of respondents such as WhatsApp groups, directories, schools, universities, markets, etc. This is a commonly used sampling technique as it's incredibly prompt, uncomplicated, economical and easily accessible to majority of Kenvans. Additionally, online data collection is highly recognized as safe in comparison to face to face interviews, or hard copy questionnaire in the aftermath of the COVID-19 pandemic modes of transmission and restricted movements due to lockdown. In many cases, members are readily approachable to participate in the study. Both quantitative and qualitative data were obtained from the tool. With the help of the computer software Statistical Package for Social Sciences (SPSS) version 25.0, quantitative data was analyzed using descriptive statistics such as frequencies, percentages, means, and standard deviations. In accordance with the survey's objectives, qualitative data was categorized thematically and described using suitable descriptive terms and sections focused on areas of concern. The analysis paid particular attention to the prevalence of caution fatigue in relation to COVID-19 safety measures, as well recommending measures to mitigate caution fatigue

5. Results and Discussion of Findings

Majority of the respondents for the survey 327 (67.6%) were from the red zone that represents the counties that had been greatly affected by COVID-19 and were under lock down during the time of the study. Thus, making a significant contribution to the study in identifying prevalence of caution fatigue in these counties and its effect on the rising cases of COVID-19 infections in the red zone visa vis those in the yellow zone.



Figure 1: Distribution of Respondents in the Red and Yellow Zones in the Survey

The prevalence of caution fatigue was measured by means of 12 items in a likert scale that ranged from Strongly Agree (SA) = 5, Agree (A) = 4, Not Sure (NS) = 3 Disagree (D) = 2 and Strongly Disagree (SD) = 1. The responses obtained were used to compute a mean score and standard deviation for each statement which was used to rate the extent of agreement. The statements were all positively worded such that a high mean score indicated a high level of caution fatigue in relation to the attribute being measured. The mean scores ranged from 1 to 5 and were interpreted as follows 1.00 - 2.99 (disagreed), 2.34 - 3.67 (undecided) and 3.67 - 5.00 (agreed). The findings are presented on Table 1.

Analysed data presented on Table 1 shows that the respondents were on a general scale disagreed that they; were no longer vigilant about maintaining the stipulated one metre physical distance (x=1.94, s= 1.10), tired of keeping social distance ($\bar{x}=2.32$, s=1.26), and ($\bar{x}=2.17$, s=1.25) had relaxed about maintaining good hand hygiene in washing and sanitizing. The survey established that some respondents felt like COVID-19 is real (x=1.44, s=.77), this indicated that majority of the respondents disagreed with this statement. This is in line with Martarelli's study, which found that pandemics cause fatigue in many people, and that fatigue contributes to vulnerability, which can transmit diseases. The study established that the respondents were undecided pertaining their agreement/disagreement with the following statements, that they; felt that restaurants, bars, parks, gyms, super markets, churches, banks, etc and other public places should be opened (x=2.85, s=1.37). The WHO (2021) has provided guidelines for national and local governments on ensuring safe operations or reopening facilities after a closure, which necessitates a number of considerations that, if done correctly, can benefit public health. The survey found out that the respondents were less anxious about the COVID-19 pandemic (x=2.63, s=1.31). This can be worrying because according to Wu et al., (2012) indicated that anxiety has a positive outcome in social behavior. When people are anxious about some possible negative outcome of their behavior, they are likely to engage in positive behaviours. Therefore, when people are less anxious about contracting COVID-19, they are likely to relax in observing safety measures. COVID-19 pandemic has caused fear and anxiety all over the world, according to Shweta et al (2021). This type of anxiety can encourage people to follow the COVID-19 safety precautions. This phenomenon, however, has had short and long - term psychosocial and mental health consequences for people. The respondents were undecided that they no longer experiencing high levels of stress due to the COVID-19 pandemic ($\bar{x}=2.71$, s=1.29). This is consistent with the results of a preliminary study conducted by Viner et al., (2020), which found that during the ongoing pandemic, the pandemic has a greater effect on children and adolescents' emotional and social growth than on adults. The respondents were undecided on whether schools or places of worship should be closed due to COVID-19, according to the participants (x=2.79, s= 1.41). The International Federation of the Red Cross (IFRC), UNICEF, and the WHO have provided recommendations to help safeguard children and schools from the COVID-19 virus. The advice provides measures to reduce the potential detrimental effects on students' education and health in the context of closing

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schools. This entails putting in place strong guidelines to promote learning efficiency, including interactive learning solutions such as online learning initiatives and academic content broadcasts on the radio, as well as ensuring that all children have access to public services. These proposals should include the measures that must be taken in order for schools to reopen safely in the future.

| Table 1: Prevalence of Caution Fa | atigue in Relation to | OVID-19 Safety | Guidelines |
|-----------------------------------|-----------------------|----------------|------------|
|-----------------------------------|-----------------------|----------------|------------|

| S. No | Statement | SD (1) | D (2) | NS | A (4) | SA | n | Ā | s |
|----------|---|-----------|----------|----|----------|-----|-----|------|------|
| 1. | I feel that news about COVID-19 and safety measures have become monotonous | 70 | 141 | 27 | 165 | 67 | 470 | 3.04 | 1.35 |
| 2. | I am less anxious about the COVID-19 pandemic | 112 | 154 | 36 | 137 | 34 | 473 | 2.63 | 1.31 |
| 3. | I am no longer vigilant about maintaining the stipulated one metre physical distance. | 201 | 179 | 22 | 54 | 15 | 471 | 1.94 | 1.10 |
| 4. | I have a feeling like COVID-19 is not real | 323 | 111 | 24 | 9 | 5 | 472 | 1.44 | .77 |
| 5. | I am no longer experiencing high levels of stress due to the COVID-19 pandemic | 105 | 139 | 43 | 157 | 28 | 472 | 2.71 | 1.29 |
| 6. | I feel that there is no need to close schools and churches due to COVID-19 | 110 | 132 | 40 | 127 | 63 | 472 | 2.79 | 1.41 |
| 7. | I feel that the COVID-19 pandemic has taken too long than I had expected | 34 | 33 | 39 | 230 | 137 | 473 | 3.85 | 1.13 |
| 8. | I am getting tired of keeping social distance | 153 | 167 | 24 | 106 | 22 | 472 | 2.32 | 1.26 |
| 9. | I have relaxed about maintaining good hand hygiene in washing and sanitizing. | 179 | 167 | 14 | 90 | 21 | 471 | 2.17 | 1.25 |
| 10. | I am getting tired of consistently wearing a mask and also wearing it correctly. | 154 | 138 | 22 | 121 | 38 | 473 | 2.47 | 1.38 |
| 11. | I feel that restaurants, bars, parks, gyms, super markets, local, markets, churches, banks, etc and other public places should be opened. | 99 | 126 | 54 | 135 | 59 | 473 | 2.85 | 1.37 |
| 12. | Regardless of measures taken there I feel there exists many sources of contracting COVID-19 from contaminated surfaces | 28 | 43 | 73 | 222 | 106 | 472 | 3.71 | 1.09 |
| | Aggregate (\bar{X}) = 2.6649, Std. Dev. (s) =.71915 | | | | | | | | |

The survey found out that people were getting tired of consistently wearing masks and also wearing them correctly (x=2.47, s=1.38) and that they felt that news about COVID-19 and safety measures had become monotonous (x=3.04,s = 1.35). When people are tired or bored about engaging in safety measures, they are likely to expose themselves to risky behaviours like not wearing masks correctly or not wearing them at all. If COVID-19 is circulating in the population, Balcetis and Aronov (2021) recommends using basic precautions like physical separation, wearing masks, making rooms well ventilated, avoiding gatherings, hand washing, and coughing into a bent elbow or tissue. The study established that the respondents agreed that; the COVID-19 pandemic has taken too long than they had expected ($\bar{x}=3.85$, s=1.13), regardless of measures taken there existed many sources of contracting COVID-19 from contaminated surfaces (x=3.71, s= 1.09). This is in line with the WHO (2021), which states that the COVID-19 pandemic had merged with another potentially life - threatening issue, namely, an unprecedented amount of low - quality, sometimes explicitly harmful knowledge about the global epidemic and crackpot remedies. In February 2021 the WHO Director - General warned about this "infodemic." The overall computed mean score for all the 12 statements was (x=2.66, s=.72), this indicated that on a general scale the prevalence of caution fatigue in relation to COVID-19 safety guidelines was moderate.

The survey further, rated the prevalence of COVID-19 fatigue by gender, underlying condition, place of residence (rural/urban), medical cover, and zone of residence (red/yellow). The findings are summarized on Figure 1.



Figure 2: Prevalence of COVID-19 Fatigue on a Scale of 1 - 5

Figure 1 show that the prevalence of COVID-19 fatigue by gender was, male $(\bar{x=2.82})$ and female $(\bar{x=2.56})$, this

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indicated that males had considerably higher levels of caution fatigue in comparison to the females. These findings are in agreement with a study done by Petherick et al. (2020) in their worldwide assessment of COVID-19 pandemic policy fatigue. The study revealed that pandemic - policy fatigue had been widespread across societal groups within countries. The researchers considered differences in initial compliance on physical distancing Initial compliance was 0.19 points higher for women than for men (t = 14.7, d. f. = 15, 576, P<0.001, 95%C1 [0.16, 0.21]), (M=3.69, SD =1.04). These findings were consistent with the evidence that women are in general more risk - averse, and that those with more social contacts have greater individual concern for health risks, in addition to the fact that women, adhered more and maintained greater relative compliance over time to the safety measures.

These findings suggest that males were less predisposed to adhere to COVID-19 guidelines compared to the females. This is supported by Griffith et al. (2020) who observes that men are more likely to engage in risky behaviours as they mask their fear. To many men, being extremely cautious may be viewed as a sign of fear or weakness. Maybe this gives an explanation why more men compared with women have contracted COVID-19 the world over. Men are more involved in social - economic and political activities compared to women and this may expose them to caution fatigue. The exposure to risky situations that require safety caution measures may be boring and monotonous and consequently contributing to caution fatigue. Notably, it would be prudent to put in place COVID-19 intervention measures targeting the males. This is in agreement with Morgul et al (2020) who asserts that gender and sex is playing a crucial role in determining who is at risk of infection, severe illness and death from COVID-19. Mogul et al (2020) assert that differences in women's and men's biological make up due to their gender is playing a role in people's risk of illness and death due to COVID-19.

Study participants without underlying health issues had a higher prevalence of caution fatigue (x=2.70) compared to those with such conditions (x=2.47). WHO has issued guidance for people with underlying health issues and community resources to ensure that they are shielded from COVID-19 without being marginalized, stigmatized, placed in vulnerable situations, or otherwise unable to afford basic necessities and social services. Vulnerability can be a protective factor for people with underlying conditions because they are likely to strictly adhere to the safety measures in order to avoid contracting the virus. This study revealed that persons with a medical cover adhered more to COVID-19 guidelines, while those without. During the COVID-19 epidemic, it is important that all people have access to comprehensive medical cover. The WHO stresses that everyone should safeguard oneself from COVID-19, which could also safeguard everybody else. Residents in urban areas posted a slightly higher level of caution fatigue $(\bar{x=2.67})$ compared to those in rural areas with a rating of (x = 2.64). Urban areas may be a bit crowded compared to rural areas that have open fields and hence may not require people to wear masks most of the time.



Figure 3: Caution Fatigue by Age

Analysed data presented on Figure 3 revealed that the 20–39 - year group had the highest level of caution fatigue (x=2.82), this was followed by 40 - 59 years (x=2.57), above 60 years (2.47) and lastly below 20 years with (x=2.39). According to Petherick et al. (2020) age is predictor of caution fatigue with the older population being more cautious than the younger ones. The findings of this study were in agreement with Petherick et al. (2020) that generally elderly people are more risk - averse and they

adhere more and maintained greater relative compliance with safety measures.

According to a study conducted on Kenyan youth, Karijo et al (2020), 31% of the youth (1 in every 3) believe they are at low or no risk of being afflicted with COVID-19. This can help explain the high prevalence of caution fatigue among the 20 - 39year group. These findings suggest the need to put in place measures to address the high levels of caution

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fatigue among 20 - 39year group. The 40 - 59 years old presented high levels of caution fatigue, possibly because this group represent a segment of the population that is actively involved in formal and informal employment and also shoulders diverse family responsibilities.

The study conducted a survey on the prevalence of caution fatigue by marital status as shown in Figure 4.



Figure 4: Caution Fatigue by Marital Status

The findings revealed that unmarried persons had the highest level of caution fatigue (x = 2.76), this was followed by the married (x = 2.630 and lastly the divorced (x = 2.57). Perhaps, the observed high prevalence of caution fatigue could be attributed to the fact that majority of the unmarried persons were most likely in the 20 - 39 years age group

which had the highest prevalence rate.

The survey rated the prevalence of caution fatigue by the employment status of the respondents. The findings were as shown on Figure 5.



Figure 5: Prevalence of Caution Fatigue by Status of Employment

Figure 5 shows that persons working in the jua kali sector (informal employment) had the highest levels of caution fatigue (x=2.87), this was followed by people in business (self - employment) (x=2.71), formal employment (x=2.69), students (x=2.63), farmers (x=2.38) and lastly retirees (x=2.39). These findings suggest that working in certain sectors, notably, jua kali and business may predispose people to a greater likelihood of contracting COVID-19. In this regard it is important that the government should address the unique challenges of these sectors in

relation to COVID-19 caution fatigue. The COVID-19 pandemic has touched all aspects of society including how we work. The virus disease outbreak has thrown our way of living into disarray and shook global labour markets. Increased social distancing and a variety of other constraints on people's everyday activities have caused labour markets to be disrupted. Many companies have been directly impacted by these safety measures, especially those who have immediate interaction with the customers or clients, such as those in the leisure and hospitality sector, but they

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have also been impacted indirectly by lower demand for their services.

6. Conclusions

Majority of the respondents in this study agreed that COVID-19 pandemic is real. This is a protective factor that would make people take the safety measures seriously. The respondents were undecided whether social places should be opened. The COVID-19 pandemic seems to take long than expected and many respondents felt that related news and safety measures were becoming monotonous and this is a risk factor contributing to caution fatigue. The study also established that respondents without underlying medical conditions had a higher prevalence of caution fatigue. People with underlying medical conditions usually acknowledge their vulnerability and therefore adhere to safety measures more compared with those without underlying medical conditions. Men were found to have higher prevalence of caution fatigue compared to women. The 20-39year group had the highest level of caution fatigue. Respondents working in informal employment presented high levels of caution fatigue compared to their counterparts in the formal sector. The study also established that respondents living in urban areas had high caution fatigue than those in the rural setting. From the findings, it is clear that some people are at higher risk of COVID-19 depending on factors such as; gender, age, area of residence, employment, underlying conditions, attitude towards COVID-19 among others and these factors need to inform the intervention measures for caution fatigue mitigation.

7. Recommendations

The findings from this study have several implications for practice. When COVID-19 pandemic started, there were aggressive safety measures campaigns through mainstream and social media outlets. Though the pandemic has taken long than expected, these campaigns need to continue as intervention measures against caution fatigue. Intervention measures targeting men need to be put in place because men were found to be more at risk of caution fatigue. People in informal employment like jua kali need to be supported in putting in place safety measures which sometimes can be expensive to them and therefore contributing to being less cautious. Since many respondents felt that COVID-19 pandemic has taken long, the government and relevant stake holders need to put in place measures that would give people a sense of normalcy and progress because the feeling of stuckness in the new normal can contribute to higher prevalence of caution fatigue.

The importance of public awareness on COVID-19 must be re - energized. To dispel the myths about the COVID-19 pandemic, public health efforts should be stepped up. More public participation is needed, with inclusion of all interested parties such as religious leaders, men, women, and youth group leaders who will be equipped with sufficient knowledge on COVID-19 prevention strategies and will work as agents of change for strengthening COVID-19 measures, along with monitoring officers to improve adherence to safety guidelines. Finally, policymakers and mental health practitioners should aim to educate the public about the possibility of exhaustion as a psychological reaction to a deadly virus, as well as recommend ways of coping with and dealing with physical and mental fatigue, in order to improve Kenyan citizens' personal wellness during the COVID-19 pandemic.

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