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SOURCES OF INFORMATION ON COVID-19 AMONG THE YOUTHS AND ITS IMPLICATIONS ON MENTAL HEALTH. A CROSS-SECTIONAL STUDY IN NAIROBI, KENYA

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ABSTRACT

Introduction: The world is currently undergoing a double epidemic with the COVID-19 pandemic and an information epidemic (infodemic) of misinformation and disinformation. Misinformation and disinformation are a hindrance to health communication and have severe public health consequences including fear, stigma, and the resultant stress and mental morbidity.

Objectives: This study sought to determine the sources of information on COVID-19 among the youth and the effect of this information on their mental health.

Study Design: A cross-section descriptive study design. Data was collected using an online questionnaire.

Participants: Two hundred and seventy-two (272) youth were surveyed. The Statistical Package for Social Sciences (SPSS) version 20 was used to analyze the data.

Results: Seventy-six (76.1%) of the youth received information on COVID-19 from the nationally televised press briefings by the Ministry of Health (MoH), while 56% of the youth received information from social media platforms such as Facebook (23.9%) and Twitter (32.4%). The televised press briefings by the Ministry of Health COVID 19 taskforce were regarded as the most credible sources of information on COVID-19 by 78.7% of the youth. Facebook was reported as the biggest source of fake, unverified, and misleading information on COVID-19 by 72.4% of the youth. The findings also established that misinformation on COVID-19 resulted in adverse effects on the mood and mental health of the participants; 35.7% felt confused by the misinformation while 23.9% and 22% reported anxiety and fear, respectively.

Conclusion: These findings will inform national strategies to address misinformation and disinformation propagated through social media.

INTRODUCTION

The beginning of the year 2020 marked the decade of action. With the United Nations left with only ten years to achieve sustainable development goals, the year 2020 was critical for member states to revamp their commitment towards the SDGs. However, during the first quarter of the year, the World Health Organization declared SARS-CoV-2 (coronavirus, COVID-19) as a disease of Public Health Emergency of International Concern (1). The virus which originated from the Wuhan province of China has caused considerable disruption to the world economy. Nearly every country around the world is grappling with this respiratory illness even as various activities are grounded and at a standstill (2). Over 1 million people around the world had succumbed to the disease with close to 21 million people contracting the virus. (3). The loss of lives coupled with the increase of daily caseload and the uncertainty around when the pandemic will subside caused devastating effects on the mental health status of people especially among the youth (1).

During the COVID-19 crisis, information proved to be of utmost importance. There was a growing need for health communication to keep people informed on new developments around the pandemic. Information saves lives and in the context of the coronavirus pandemic, where excess and false information are going round, clear, and accurate information is paramount. During times of isolation, lockdown and curfew, social media became a great way to stay close to love ones, friends, and relatives and to access

information on COVID-19. Youth largely use Facebook, Twitter, WhatsApp, and other social media sites as sources of information. On many occasions, these sites and App have been used to convey information on the number of new COVID-19 cases, death tolls, ongoing research to finding the vaccine among others (4).

Of particular concern in this study are the sources of information on the COVID-19 pandemic and its implication on the mental health of the youth. A study conducted by Zhai and Du revealed that the youth were the worst hit as most have never experienced a pandemic of this magnitude hence the difficulty in adjusting and adapting (1). This study is important at a time when spreading false and unverified information is prevalent in the social media. Youth are heavy users of social media and exposure to misinformation can result in anxiety, paranoia, loss of focus, concentration, and depression. The findings of this study are necessary for informing strategies to counter exposure to misinformation through social media and other communication channels.

Justification of the Study

According to Civic Science definition of heavy social media users as people who spend 4+ hours a day on social media sites and apps (5), youth aged 16-24years are the most intense users of social media sites and apps. With the COVID-19 pandemic lockdowns, quarantine, and isolation, youth have more free time and spend considerable amounts of it on the internet. Even with the potential benefits of social media, exposure to inaccurate information in the context of the life threatening COVID-19 pandemic and the

associated loss of jobs and income can result in mental health problems such as anxiety, suicidal ideation, and depression. Since the Coronavirus pandemic is an emerging health issue, there is an urgent need understand the sources of information among the youth and the implication of these on their mental health. The results of this study will strengthen mental health response during health crises.

Sources of Health Communication

Health communication is the study and practice of communicating important promotional health information, in public health campaigns, health education forums, and from doctor and patient. The main aim of conveying this health information is to influence personal health choices through the improvement of health literacy (6,7). Health communication takes many forms and in the recent past, the field has drastically improved with the advancement of technology. Health communication can be classified into seven types: persuasive/behavioral communication where persuasive tactics are used to make the audience adapt to a new idea or practice, risk communication where people are made to understand a serious issue and how to make decisions, media advocacy, which involves use of mass media to advance social and public policy initiative, edutainment which uses various media products such as television, radio, and the internet to deliver health messages, interactive health communication which allows patient-healthcare professional interaction through use of media devices, and participatory communication where development work and society's participation are used in creating campaigns to relay health messages (8). All the above methods have come into

active play with the rise of the COVID 19 pandemic.

Health Communication During COVID 19 Pandemic

COVID-19 is a communicable respiratory disease caused by a new strain of coronavirus that causes illness in humans (9). The disease was declared a global pandemic in the first quarter of 2020 (10) and has since led to the implementation of various strategies by countries all over the world to prevent its spread. Some of the strategies that have been adapted to curb the spread of COVID 19 have included: the mandatory wearing of masks in various scenarios, social distancing, closure of non-essential businesses, curfew hours implementation, complete lockdowns of cities and even countries, banning of international flights and supportive environments and regulations to promote hand sanitization and general hygiene practices (11). At the heart of the implementation of these strategies is health communication. Effective health communication has been found by recent studies in 2020 is key in the successful implementation of the strategies needed to curb the spread of COVID 19. Research conducted in slum populations in Kenya indicated that health communication was crucial in translating information on COVID 19 to slum dwellers (12). This was in line with the efforts from the World Health Organizations and local governments to streamline information and communication channels (13). As the COVID-19 crisis progressed, a new epidemic, the COVID-19 infodemic, was also growing (14). Infodemic was defined by the WHO as an overabundance of information, some accurate and some not, that makes it hard for people to find trustworthy sources and reliable guidance when they need it (15). This can be overwhelming in a pandemic situation.

The COVID19 Pandemic and Youth

The COVID 19 pandemic which has since turned into a crisis has negatively impacted on youth across the world. It has led to the closure of schools and other institutions of learning, working from home, and limited movement thus reducing greatly social interaction of youth with their peers (16). Youth find it hard to cope with these unprecedented changes that have happened at an extremely critical time in their lives. According to the United Nations Department of Economic and Social Affairs, youth continue to experience adverse effects caused by COVID 19 (17).

A recent study conducted by WHO found that COVID-19 presented the most difficult time for youth in their 20s because none had ever experienced a global pandemic of this nature and magnitude. Many lacked the resilience needed go through the pandemic (18).

Sources of Health Information and Its Effects on Health

Health communication plays an important role during a health crisis such as the COVID 19. In an article published by the University of East Anglia, inaccurate information on COVID 19, has made the pandemic much worse (19). The study found misinformation affected human behavior which in turn affected individuals' health outcomes (ibid). Another study found that inaccurate information was three times more likely to be shared than the verified news on health (20). These studies highlight the role that sources of health information play in enhancing health literacy and promoting healthy behavior.

Gaps in research

Throughout the literature review, it was evident by the limited research articles on the topic that this was indeed aspect on COVID

19 that needs to be investigated. There are limited studies which have investigated the effect of sources of health information on the health of youth, particularly during a pandemic.

Research Questions

- What are the sources of information on COVID-19 among the youth?
- What are the effects of misinformation on COVID 19 on the mental health of youth?

Objective of the study

- To identify the sources of information on COVID-19 among the youth.
- To assess the effect of misinformation on COVID 19 on the mental health of youth.

MATERIALS AND METHODS

Research Design

The study adopted a cross-sectional study design to establish the sources of information on COVID-19 among the youth and its effect on their mental health. The study was conducted in Nairobi, Kenya between April to June 2020.

Study Location

This study was carried out in Nairobi, Kenya. Nairobi is Kenya's capital city, has the national outlook and representation of the Kenyan youth. Moreover, the study was carried out at a time when most of the confirmed cases of COVID-19 were in the capital city-an an estimated 70% of the cases, and during the lockdown period (21).

Inclusion and Exclusion Criteria

Inclusion Criteria and Exclusion Criteria

Literate youth in Nairobi County aged 18-35 years were eligible for study provided they have access to a smartphone with internet. Those included in the study must also be able to read, write, understand and agree to be

part of the study. Youth unwilling to participate were excluded.

Sampling Method

The study adopted a random sampling technique. The participants of the study who received the questionnaire were randomly picked from our database of 3478 youths within the age and location limits that had subscribed to our website and those that we had interacted with over the years throughout work with Stowelink Inc.

Sample Size Determination

The required sample size was calculated using the Fisher et. al., formula (22).

$$n = \frac{z^2 (p-q)}{d^2}$$

n = desired sample size

z = standard normal deviate usually set at 1.96 which corresponds to a 95% confidence level.

p = prevalence mental ill-health which is at 20% according to the Kenya Mental Health Policy (2015-2030) (29)

d = degree of accuracy desired which is 5%.

$$n = \frac{1.96^2 (0.2+0.8)}{0.05^2} = 248$$

To cater for the non-response, 10% of the sample size was added.

$$\frac{10}{100} * 248 = 0.1 * 248 = 24.6$$

$$248 + 24.6 = 271$$

272 respondents

Research Instruments and Data Collection

The study adopted the use of a semi-structured online questionnaire questionnaires because administering the questionnaire in hard copies was not possible at that time due to the lockdown and strict guidelines on social distancing and limited movement. The questionnaire was sent to the randomly selected youth by email, or by WhatsApp where it was not possible to reach a respondent via email. This questionnaire had a section for the respondent to provide

informed consent and other sections; for the biodata, sources of information on COVID 19 and the mental health status analysis questions. Data for this study was collected over a period of six (6) weeks.

Validity and Reliability of the Instruments

Relevant literature was reviewed, and the questionnaire was developed as per the study objectives. To ensure reliability, the questionnaire was pre-tested with 21 respondents in Nairobi County. These respondents did not participate in the actual survey.

Data Analysis

Quantitative data was coded using Microsoft excel then analyzed in of Statistical Package for Social Sciences (SPSS) Version 20.

Logical and Ethical Considerations

All respondents consented to participate in this study. The confidentiality and privacy of the subjects were protected and maintained during throughout the study and the questionnaires did contain personal identifiers.

RESULTS

Social Demographics Characteristics

A total of 272 respondents participated in the study. The mean age of the respondents was 24 with the youngest respondent being 18 years and the oldest being 34 years. One hundred and fifty-five of the participants (55.1%) were male and 44.9% were female.

Sources of Information on COVID 19

Seventy six percent (76.1%) of the respondents reported receiving information on COVID 19 from televised press briefings, and over half (56.3%) reported getting their information from social media platforms; Facebook and Twitter, figure 2.

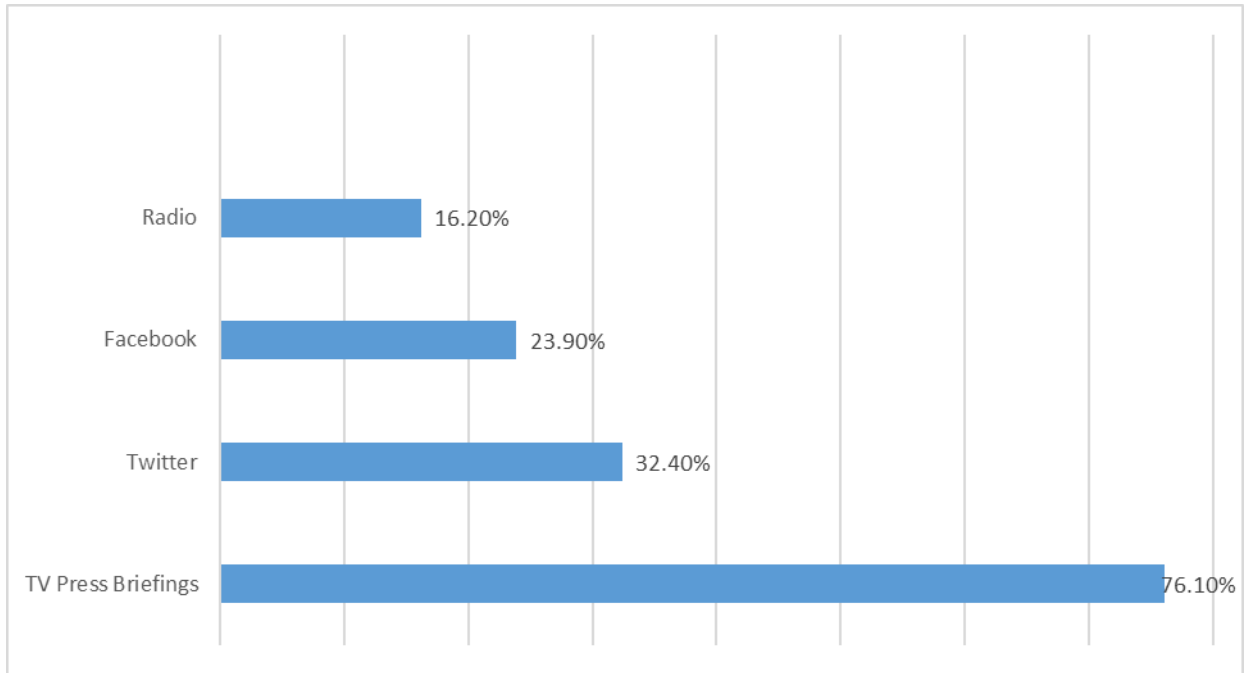


Figure 2: Sources of Information on COVID-19

Credibility of COVID 19 Information Sources

Seventy-eight (78.7%) of the respondents indicated that televised press briefings were

the most credible source of information on COVID 19, and only 3.7% cited Facebook as a credible source of information, Figure 3.

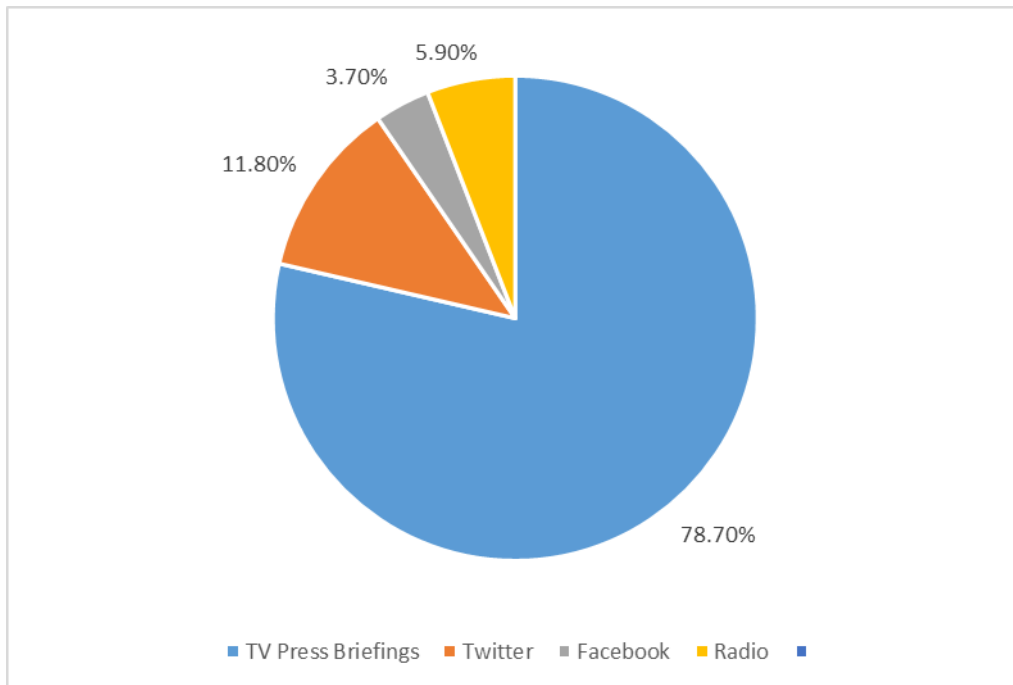


Figure 3: Credibility of the Information Sources

Over half of the youth (55.1 %) felt that they were receiving adequate factual information on COVID 19 while 44.9% of the respondents felt that they were not receiving it, Figure 4.

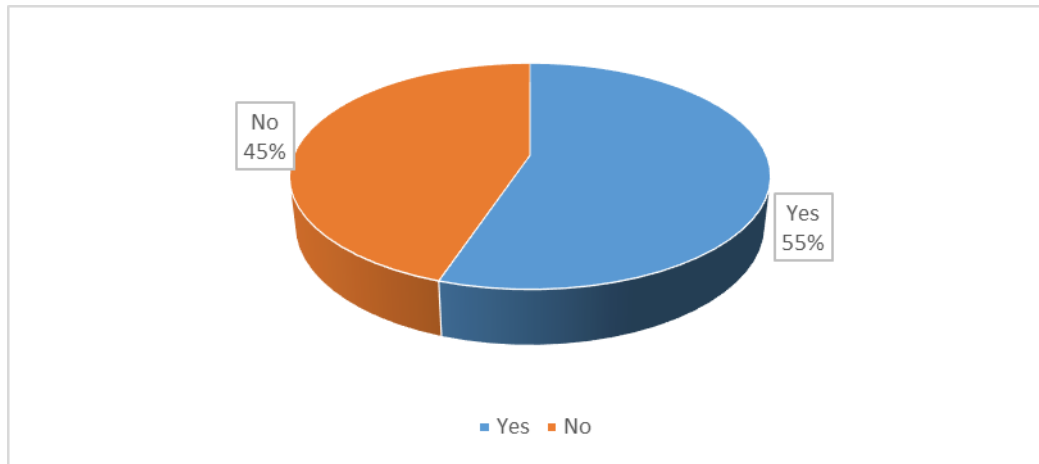


Figure 4: Proportion Receiving Factual Information on COVID 19

Exposure to COVID 19 Misinformation

Misinformation on COVID 19 had been encountered by a majority of the respondents 88.6% with only 11.4% indicating

that they had not received fake news on COVID 19. Seventy-two percent (72.1%) reported Facebook as the leading source of misinformation on COVID 19, Figure 5.

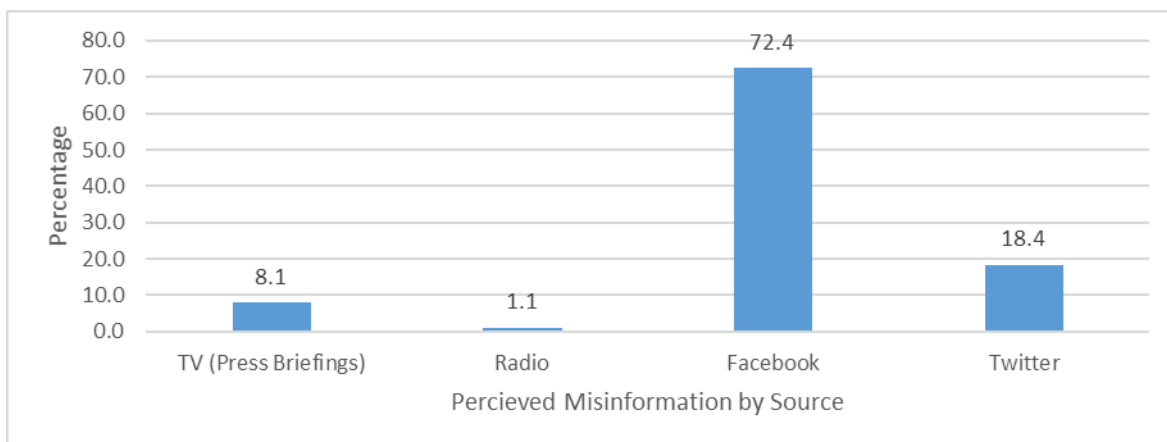


Figure 5: Perceived Misinformation by Source

Thirty eight percent (38%) of respondents reported having been exposed at least once to COVID 19 misinformation in the two weeks

preceding the survey while 24% and 21% had received inaccurate information twice and thrice respectively, Figure 6.

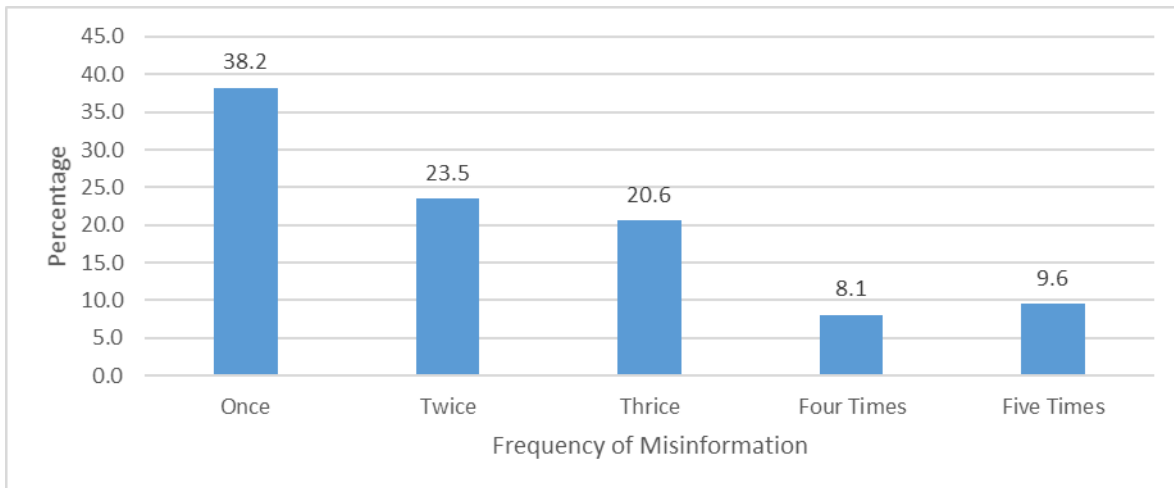


Figure 6: Misinformation in the Two Weeks Preceding the Survey

Misinformation affected the respondents in various ways. About 36% reported feeling confused, 24% reported anxiety, and 22% was

afraid as a result of the misinformation, Figure 7.

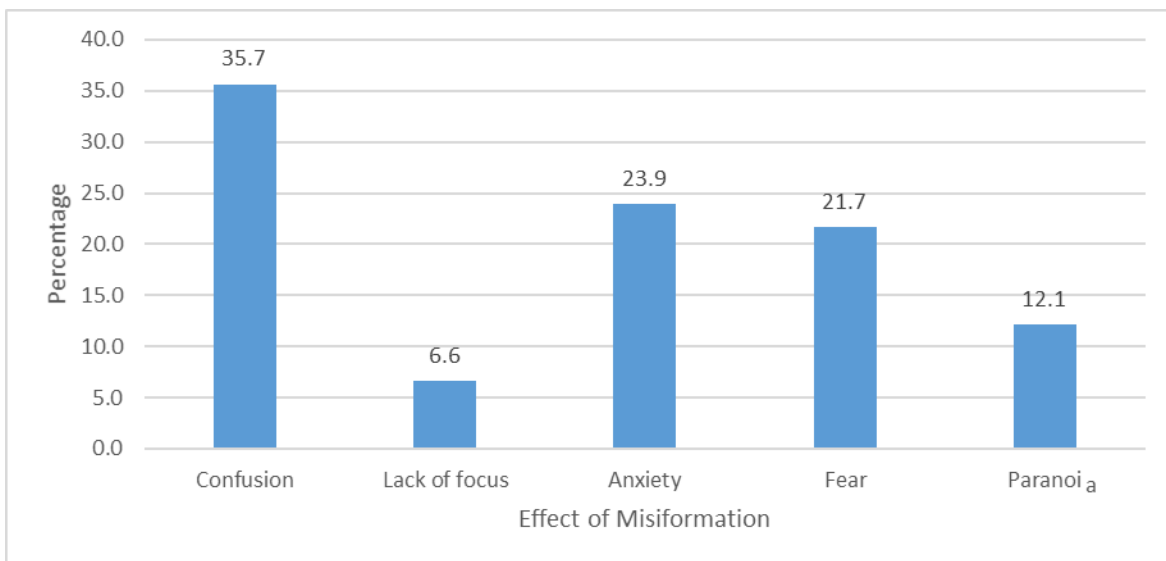


Figure 7: Effect of Misinformation on Mental Health

Summary of Findings

When it came to the primary sources of information on COVID 19, the Ministry of health led COVID 19 televised press briefings were most preferred (76%). Social media platforms (Twitter and Facebook) were also sources of COVID 19 information by more half of the sample (56%). Televised press

briefings were the most credible source of information on COVID 19 as reported by 79% of the respondents, and only 4% cited Facebook as a credible source of information. A large proportion of the respondents (89%) had encountered misinformation on COVID 19. Those who received inaccurate or misleading information cited Facebook as the

source (72%). Misinformation on COVID 19 on COVID 19 had negative effects on the mental health of 71% of the youth surveyed. The commonly reported negative effect on mental health were anxiety, fear, and confusion.

DISCUSSION

Sources of Information on COVID 19 among Youth

This study found out that the majority, 76.1% got their news on COVID 19 from the televised press briefings but also a substantial proportion cited social media platforms, primarily Facebook and Twitter as an important source of information on COVID 19. This is consistent with the study by Olaimat et.al., (2020) which reported social media as a vital source of information on COVID 19 (23). Televised press briefings were the most credible source of information on COVID, a finding similar to that by Cardiff University which reported press briefings as a credible sources of information on COVID 19 (24).

The 'infodemic', particularly exposure to misinformation on COVID poses a serious problem for public health among the youth in Nairobi with 89% indicating that they had encountered misinformation on COVID 19. Facebook was reported as a common source of misinformation on COVID 19 by 72% of the youth. These findings are in line with finding from a study done in Africa which indicated an alarming rise of COVID 19 fake news on social media (25). The findings of this study are similar to those by Bridgman et al., (2020) where the researchers concluded that the site from which one receives news on COVID 19 determines the accuracy of the news received. This research also showed that people who received news from social media were more

likely to receive inaccurate/misleading information on COVID 19 (26). More than half (55%) of the youth felt that the COVID 19 information disseminated was adequate and factual while a substantial proportion (45%) felt that it was not. This could be attributed to the abundance of both accurate and inaccurate information on COVID 19 which can be overwhelming and hence difficult to differentiate.

Effects of misinformation on COVID 19 On Mental Health

The findings from this study indicated that COVID 19 misinformation had negative effects on the mental health of youth such as fear, anxiety and confusion, and thus the health of the population (26). Studies in America (27) and India (28) reported similar findings. Constant exposure to COVID 19 misinformation elicited fear and confusion and could lead to depression (ibid). The rising number of suicides globally may be an indicator of increased depression from the effects of the pandemic.

CONCLUSION

Televised press briefings were found to be the most preferred and most used source of credible information on COVID-19. However, a substantial proportion of youth also used social media as a source of information on COVID 19. The majority of the study participants indicated that they had received misinformation on COVID-19, with Facebook reported as a leading source of misinformation. The study established that misinformation on COVID 19 pandemic had negative effects on the mental health of youth, resulting in confusion, anxiety, and fear.

RECOMMENDATION

Operational recommendations

- The ministry of health should Identify the reasons behind the perceived inadequate information on COVID 19 reported by a substantial 45%.
- The Ministry of health's' COVID 19 task force needs to develop strategies to effectively counter the misinformation through Facebook and other social media platforms.
- The ministry of health needs to identify/develop measures targeting the youth, to address the negative mental health effects of misinformation on COVID 19.

Recommendations for further research.

A nationwide study to assess the effect of the COVID 19 'infodemic' and misinformation on youth.

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