Information Sources, Gender and Risk Perceptions: Understanding Health Behavior in Times of Crisis

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Abstract

The purpose of this research was to establish whether gender differences influenced the health seeking behavior of Ugandans during the peak of the COVID – 19 Pandemic. The Health Belief Model was used as the theoretical framework. The study used survey method, specifically online and physical questionnaires to collect data. For the online questionnaires, Google Forms were developed and shared through email, on WhatsApp groups and on Facebook. Contrary to the existing literature, the paper discovered that the health behaviors of respondents during the COVID – 19 crises in Uganda were not strictly gendered. Previous research has frequently characterized gendered health behaviors in binary terms, casting women as health-conscious and risk-averse, and men as risk-prone and disengaged. However, the data from this study reveal a more intricate and context-dependent pattern. For instance, both female and male respondents largely rejected conspiracy theories regarding vaccine safety and COVID-19 mortality, indicating a shared skepticism toward misinformation and a collective inclination toward evidence-based interpretations of the pandemic. In sum, although gender continues to play a salient role in shaping health-seeking behavior, particularly in the face of novel health risks, this study underscores that these behaviors cannot be solely or uniformly attributed to gender.

Key words: *Gender differences, health-seeking behavior, Health Belief Model, COVID-19 pandemic, risk perception, misinformation, conspiracy theories*

Introduction

Research has shown that individuals often seek healthcare services when they perceive themselves to either be ill or likely to have health problems (Ward et al., 1997). In addition, the health seeking behavior of a population is illustrated by how individuals make use of the available healthcare services (Shaikh & Hatcher, 2005; Musoke et al., 2014). However, the health seeking behaviors can be influenced by a number of factors including limited knowledge and perceptions of the healthcare services, risk perceptions, socioeconomic challenges, availability of healthcare services and gender differences (Wolff, Larsen & Ogaard, 2019).

People perceive and act on risk in two ways; risk as feelings refers to people's reaction to danger according to their instincts and intuition and risk as analysis allows logic, reason and scientific deliberation to bear on the decision to act (Slovic & Peters, 2006). Risk perception is a subjective judgement that people make about the characteristics and severity of a risk (Darker, 2013). It involves assessing the actual or potential threat to one's life (Lohiniva et al., 2022). There are three dimensions of perceived risk – perceived likelihood, perceived susceptibility and perceived severity. Perceived likelihood is the probability that one will be harmed by the hazard, perceived susceptibility refers to an individual's vulnerability to a hazard while perceived severity refers to the extent of harm a hazard would cause (Darker & Whittaker, 2018).

Paek and Hove (2017) define risk perception as people's subjective judgements about the likelihood of negative occurrences such as injury, illness or death. Risk perceptions can also be people's beliefs and feelings about the possibility of contracting disease or other harms to health (Ferrer et al 2018). However, Rosi et al., (2021) refers to risk perception as a cognitive process which guides people's behavior when they face situations involving potential risks. There are three distinct but related types of risk perception which predict people's

motivation to protect themselves against health threats; deliberate, affective and experiential. Deliberate risk perception is a reason-based judgement of probability of occurrence of the threat. Affective risk perception refers to the valence (positive-negative) and arousal (high-low) of feelings associated with the threat and is measured by reports of fear, worry, or anxiety. Experiential risk perception to heuristic risk judgments or gut-level feelings of vulnerability to a threat (Ferrer et al 2016; Ferrer & Klein, 2015).

In addition to risk perceptions, gender is also a significant factor in how health outcomes for men and women differ (Davies & Bennett, 2016). In general, women tend to seek more health information and show greater interest in health-related issues (Bidmon & Terlutter, 2015; Baumann et. al., 2017; Escoffery, 2018). Men tend to underestimate their health risks which often leads to avoidance and reluctance towards risk information messages (Hatchell et al., 2013). Evidence shows that men exhibit low rates of help seeking (Gwyther et. al., 2019) and are less likely to read health information (Plotnikoff et. al., 2011). This paper thus sought to establish whether gender differences influenced the health seeking behavior of Ugandans during the peak of the COVID – 19 pandemics.

Literature Review

Risk perception and health behavior

Risk perception and people's behavior are two interrelated aspects of a health outbreak (Savadori & Lauriola, 2021). Understanding the risk of disease affects the care process and impacts behavior change (Posey, 2006). Risk communication increases understanding of health threats and supports individuals in making informed decisions to reduce risks (Lowbridge & Leask, 2011). Risk perception includes the sense of human vulnerability and fear of contagion (Siddiqui & Qamar, 2021). During emergency situations, people's behavior depends on how they perceive the related risks (Lohiniva et al 2022; Savadori & Lauriola, 2021). Risk perceptions are a prerequisite for protective action (Schmalzle et al., 2017). When people perceive a high risk of harm, they are motivated to engage in health-protective to reduce their risk (Conner & Norman, 1996; Miao, 2012; Shim & You, 2015; Choi et al., 2018).

Individual risk perception is one of the major factors that drive adherence to recommended protective health measures (Cowling et al., 2010). Perceiving a health threat is the obvious condition for the motivation to change behavior and what is most relevant in changing health behavior is feeling personally at risk (Renner et al., 2008). Therefore, in order to make wise health decisions, individuals must understand the risks and benefits associated with alternative courses of action (Fischhoff, 2007). Risk perceptions related to health play an important role in motivating health behavior change hence they are essential to processes of health behavior change, whether that be stopping risky behaviors or starting healthy ones (Ferrer & Klein, 2015).

Risk perception is usually shaped by one's knowledge (Ning et al., 2020). Individuals require appropriate knowledge to take action (Elledge et al., 2008). This knowledge enables proper self-assessment of the risk of an occurrence and the consequences associated with it (Tenkorang, 2018). Appropriate knowledge not only encourages people to act but also facilitates the right actions (Ning et al., 2020). Perception of risk extends beyond individuals to social and cultural constructs reflecting values, symbols, and social norms (Caldini et al., 1990) thus the development of risk perceptions is connected to personal, social and cultural influences (Lin et al., 2018). Cultural assumptions and values can also shape the way members of a society perceive and respond to risks (Lin et al., 2018). Risk perception can be influenced by psychological factors, and environmental and social conditions (Wolff, Larsen & Ogaard, 2019) hence the adoption of protective measures in individuals is significantly affected by their level of risk perception.

There exist gender differences in propensity to take risks and men are considered more likely to take more risks than women (Byrnes, Miller & Schafer, 1999). Weber, Blais and Betz (2000) found that men perceived less risk indicating a greater likelihood of engaging in risky behaviors. During emergency situations, women reported a lower likelihood of engaging in risky behavior (Harris & Jenkins, 2006). Women tend to have greater perception of the severity of risks and greater adherence to prevention measures (Galasso et al.,

2020; Ferrin, 2022). Ferrin (2022) found that women are more risk averse than men in health situations, although differences in health risk behavior between men and women tend to be typically related to well-established gender stereotypes. For instance, gender stereotypes manifested in women's emphasis on care while men emphasized agency (Ellemers, 2018).

Risk perception during health crises

The degree of risk perception is determined by the individual perceptions of the severity of a health threat and their vulnerability to that threat (Wolff, Larsen & Ogaard, 2019). Public risk perceptions, knowledge and behaviors play a vital role in the community transmission of infectious diseases (Bish & Michie, 2010; Lin et al., 2011). Risk communication about health risks during a crisis promotes risk awareness and health protective behaviors among individuals and communities (DiClemente & Jackson, 2017). Risk perception can depend on the trust in the authority providing information about the risk, familiarity with the situation, awareness about the risk and perceived uncertainty (Siddiqui & Qamar, 2021).

The way people perceive risk predicts their willingness to accept public health messages and follow public health measures (Lohiniva et al., 2022). When the perceived rick is too high, it may lead to panic or denial of the threat; if the perceived risk is low, people are demotivated to adhere to public health measures (Baldner et al., 2022). Risk perceptions tend to be higher when a health threat is dreaded or seen as uncontrollable (Ferrer & Klein, 2015). During health crises, the safety of the population depends on the extent to which they comply with the prescribed protective measures (Savadori & Lauriola, 2021).

Risk perception is significantly influenced by several predictors such as direct or indirect experience of the crisis, personal and collective efficacy, personal knowledge, trust in science, medical professionals and government, and individual values and beliefs (Dryhurst et al., 2020). Trust enables individuals to judge the risk in the absence of complete knowledge or understanding (Siegrist & Cvetkovich, 2000; Oh, Paek & Hove, 2015). Risks are amplified or diminished through various means which can range from individuals to the news media. This happens especially during the initial transfer of information about the risk and the response mechanisms in society (Morton & Duck, 2001; Shih, Wijaya & Brossard, 2008). This is how public perceptions of risks are shaped.

Research shows that media coverage of a public health crisis can introduce particular risk characteristics that influence public perceptions (Fife-Schaw & Rowe, 1996). In addition to the extent of media coverage is the way a public health risk is framed in the media; a new, unfamiliar disease will be presented with higher dread than a more familiar disease, even if the more familiar disease is actually deadlier (Oh, Paek & Hove, 2015). This amplifies risk perceptions and can result in inaccurate overemphasis of primary public health impact. Risk perception is one of the important determinants for cooperation and adoption of health-protective behaviors by the public (Bish & Michie, 2010).

Consistent, clear and credible messaging helps to quell public fears. A study found that the public is less likely to horribly misjudge health risk when information is effectively and accurately communicated (Fischhoff et al., 2018). They also found that people have clear preferences about how they like to receive information and what sources are viewed as trustworthy. Risk perception among the public depends on the way messages are framed, the communicator of the messages and the manner of their communication (Glik, 2007). Risk perception is a stronger driver of risk behavior for men than for women, who generally tend to adopt safe measures to protect themselves and others (Galasso et al., 2020).

Information seeking behavior during risks and crises

Health or care seeking behavior can be defined as "any action undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy" (Ward et al., 1997). The health seeking behavior of individuals or communities can be seen by how they utilize available health services as well as the overall health outcomes of the population (Shaikh & Hatcher, 2005; Musoke et al., 2014). In any cultural context, most health seeking behavior comes about as a response to recognized symptoms (Prentice & Pizer, 2007). Any delays in seeking or obtaining diagnosis and treatment permits continuous transmission of the disease which increases the risk of unfavorable outcomes (Ward et al., 1997; Prentice & Pizer, 2007). Beliefs play a significant role in information seeking because they define the limits of people's thoughts and motivation (Lalazaryan & Zare-Farashbandi, 2014).

There is increasing need to investigate health seeking behavior and access to care in order for implementers of health interventions to adapt programs to local contexts (Hausmann-Muela et. al., 2012). Health-seeking behavior can be viewed as a mixed response of individuals to conditions of ill-health and depends on their knowledge and perceptions of health, socioeconomic limitations and adequacy of available health services (Afolabi et al., 2013). During the COVID-19 pandemic, health knowledge is said to have improved in terms of access to health information and general understanding of health issues (Saah et al., 2021).

Seeking health information from selected information sources is a purposive action that guides health-related decision making (Johnson & Case, 2012). By obtaining knowledge, people can gain better control over decisions and actions that affect their health (Medlock et. al., 2015). At the outbreak of a pandemic, it is critical that individuals engage in preventive behavior in order to slow down or avoid the spread of infectious diseases (Glass et al. 2006). For many people the world over, the use of the Internet as a source of health information has increased (Ghweeba et. al., 2017). However, the rise of misinformation during updating of crisis information might be unavoidable (Lewandowsky et. al., 2012). Misinformation, which still poses a serious threat to public health during pandemics such as COVID-19, (Zarocostas, 2020) is amplified by the internet and social media (Chadwick & Vaccari, 2019).

When crises emerge, an immense need for communication is created among the public (Thelwall & Stuart, 2007). Many individuals become interested in the topic of health when faced with situations that raise uncertainty about their health (Rosen & Knäuper, 2009). In public health emergencies, information sources help people make sense of the situation, learn precautionary measures (Garfin, et. al., 2020), and mitigate tensions and anxiety caused by uncertain situations (Seeger et. al., 2003; Chao et. al., 2020). Although helpful, such information sources as mass media and the internet can create new problems (Soroya, et. al., 2020) as the content available therein may amplify people's risk perceptions and fear (Laato et. al., 2020a).

During the COVID-19 crisis, people actively sought COVID-19 related information, such as its symptoms and precautionary measures, from different information sources, including the internet (Soroya, et. al., 2021); social media platforms became important for disseminating information about coronavirus, especially protective behaviors (Jamal et. al., 2015; Dadaczynski et. al., 2021; Lee et. al., 2021). When nearly the whole world was in isolation, online technologies became a necessity as the central way to access information and services (Beaunover et. al., 2020).

Gender, youths and information seeking during health crises

Gender beliefs contribute to men's healthcare avoidance (Himmelstein & Sanchez, 2016). Men who are aware of health issues and accept seeking of help may be perceived by society as exhibiting feminine behavior (Evans et. al., 2011; Lohan, 2007). This might help explain their widespread aversion to seeking help as it may challenge their embodiment of masculinity (Galdas et al., 2005). In fact, evidence suggests that men feel their gender identity is threatened by an encounter with a physician regardless of their sex (Oliffe, 2009), since it may lead them to feel they no longer possess control over their own life (Oliffe et al., 2013). Women are more tolerant of the stigma associated with seeking professional help and are more willing to recognize a personal need for help (Johnson, 1988).

Young adults consider themselves comparatively invulnerable, not thinking of their behavior as an important condition for their health (Schäfer, et. al., 2021) since they perceive themselves as healthy, having hardly any experience of illness (Whitman, et. al., 1998). For most young people, the internet offers them a confidential and convenient access to information about a diverse range of subjects (Gray et. al., 2005) and because of the anonymity the internet offers, online health resources seem to present a dependable choice for those with stigmatized conditions (Kalckreuth et. al., 2014). It is the lack of familiarity around COVID-19 that shaped public perception and response (Fischhoff, 2015); with some becoming anxious while others still downplayed the risks (Malecki et. al., 2021) even though they had personal experience with the illness or death.

Individuals generally will seek out health information if they are facing health challenges (Weaver 3rd et al., 2010). However, according to El Kahi et al. (2012) youth are likely to find difficulty in asking for help especially when it comes to health issues; their major concerns being confidentiality and embarrassment in disclosing health issues (Booth et. al., 2004) as well as financial constraints, lack of knowledge of existing services and lack of trust in health professionals (Elliott & Larson, 2004).

Source credibility, risk perceptions and gender

Men may be less inclined to seek health care than women and even if they do it is usually at more serious stages of diseases (Montesi, 2021). Although Bidmon & Terlutter (2015) show that women are generally more engaged in health information seeking, and register more health-related information searches on the internet than men (Baumann et. al., 2017), they are placed at increased risk of infection given their role as caregivers, both within the health system and at home (Gebhard et al., 2020).

Men have been reported to have higher mortality and morbidity rates as they engage in riskier behaviors and take part in fewer health-promoting behaviors than women (Courtenay, 2003). A study found that females were more likely to engage in COVID-19 preventive behaviors when compared to males (Rayan et. al., 2021). Studies on users' perceptions of the credibility of internet sources of health information found that expertise, accessibility, trustworthiness and comprehensiveness of the topic (Johnson et. al., 1995; Gray et. al., 2005) were key in influencing preference of online information sources (Marton & Choo, 2012). Cutilli (2010) found that healthcare professionals are often cited as the most common and trusted source (Cutili, 2010; Garcia-Cosavalente et. al., 2010).

At the peak of the COVID-19 pandemic, there were countless sources of incorrect information circulating on the internet about what prevented and cured COVID-19 (Kim et. al., 2020). Widespread misinformation led to many people engaging in harmful practices in order to prevent contracting the COVID-19 virus (Associated Press, 2020; Park, 2020; Gharpure et al., 2020). However, despite the propagation of online misinformation, the internet is an important source of information pandemic as it can be an efficient and swift in providing necessary information and correcting misinformation (Kim et. al., 2020).

Theoretical framework

The theory underpinning this study is the Health Belief Model. The theory was initially formulated in the 1950s by a collection of social psychologists in the United States to explain health behavior (Rosenstock, 1974: Janz & Becker, 1984). Health behavior refers to an action taken by a person who considers themselves healthy to prevent a particular ailment (Rosenstock, 1974). In the last five decades, the theory has received enormous scholarly attention, which has helped to refine it in behavioral science (Alamer, 2024: Janz & Becker, 1984). Over these years, its trends and impact have evolved significantly (Alamer, 2024). Consequently, two more modes of behavior were formulated. They include the illness behavior and sick-role behavior. On the one hand, illness behavior means an action taken by a person who feels sick to establish the state of the sickness and the appropriate remedy. On the other hand, sick-role behavior is the action taken by a person who feels ill to get well (Rosenstock, 1974). While the distinctions between these three modal mental states may be blurred, especially between illness behavior and sick-role behavior, they still help to account for human behavior (Rosenstock, 1974), particularly in times of health crises. This behavior change model was also chosen for this

study because of its comprehensive framework which helps to "understand the complex process of how and why individuals or populations change their behaviors" (Alamer, 2024, p. 1).

Methodology

Sample

This study was descriptive in nature and targeted youths between 18-35 years including those still in university and after. Data was collected both online and in physical form. Quantitative data was collected via an online questionnaire created using Google Forms and distributed through WhatsApp groups, email, and Facebook. Youths in Uganda account for 78% (about 31,000,000) of Uganda's population (Uganda National Bureau of Statistics, 2021). Using 31,000,000 million as the population size therefore, a sample size of 600 was targeted following the confidence interval of 95% with a margin of error at 5%. In addition to the online questionnaire, three focus group discussions were held and these were grouped by age from 18-24; 25-30; 31-35.

Procedure

An online questionnaire was developed on Google Forms and shared online through email, on WhatsApp groups and on Facebook. Youths who could access the internet all over the country were encouraged to take part in the study. 600 respondents were targeted. The questionnaire was set in such a way that only one response was allowed per respondent to avoid duplication. In the first two weeks of data collection, only 280 responses were gained. To increase the response rate, two research assistants were hired to send reminder emails and later trained in carrying out researcher assisted questionnaire response online. These efforts increased the responses to 422, a response rate of about 70%.

The online questionnaire completion process followed ethical procedures where respondents were assured of confidentiality, informed consent, the voluntary nature of participation and privacy. All these were explained to the respondents before recruitment – for the case of assisted questionnaire response and for the online self-completion, the information was provided and the respondent asked to only proceed if they understood and was still willing to take part in the study. After questionnaire response and preliminary data analysis, focus group discussions were held. Each focus group included a minimum of 8 discussants and were in 3 classifications of 18 t 24; 25 to 30 and 31 to 35 years. A semi structured focus group discussion guide was used to steer the discussion. All data collection instruments were pretested and ethical clearance was sought from Uganda Christian University Research Ethics Committee.

Operationalization

A number of questions were used to gain information about gender dynamics inherent in Ugandan youths' COVID-19 information seeking and how that shows in their attitudes, behaviors especially towards information about prevention and cure of COVID-19. The questionnaire included questions information sources; credibility and trust of such sources; knowledge of COVID-19 and its prevention among others. Focus group discussions centered on the same themes but prodded deeper to gain in-depth understanding of the inherent intricacies linked to knowledge, attitudes and behaviors towards COVID-19 and its causes and prevention.

Results

A total of 422 respondents took part in the study. 55.4% were female while 45.6 were male. The majority, 61% were between 18-24, followed by those between 25-30 with 29.8% and the rest, 9.2% were between the age of 31-35. The majority of respondents, 61.3% were students, followed by business owners at 13% while the rest were in various professions such as working with none government organisations, civil servants, technicians among others. In as much as the study targeted youths across the country, the majority of respondents identified themselves as living in Kampala, 29.7%; Mukono, 25.1%; Wakiso, 16.3%; Entebbe,

6.1% and the rest were from Mbarara, Mbale, Rukungiri, Jinja, Kisoro, Ibanda, Masaka, Masindi, Kiruhura, Hoima among others. All respondents had to have known about COVID-19 to apart of the study. This a was requirement for both questionnaire response and focus group discussions.

This section sought to establish the gender dynamics and health behaviors of Ugandans during the COVID-19 crisis. These are presented in the table below in which the responses of different gender are compared in respect to their reported attitudes and behaviors with regards to the COVID-19 preventative measures. The chi-square is used to find out whether the responses are statistically dependent or independent of gender.

Table 1

Results showing gender dynamics and health behavior during COVID-19 crisis

	Gender		Total	Inferential	
				Chi Square (X^2)	P-value
	Female	Male			
Already got vaccinated					
Yes	52	41	93		
No	185	144	329	0.003	0.957
Who should get vaccinated					
People above 60	4	7	11		
The youths	1	0	1		
People at high risk of C-19 virus	56	60	116	10.927	0.027
Everyone above the age of 18	152	93	245		
No one	11	15	26		
I would get vaccinated if vaccines were available					
Strongly disagree	30	22	52		
Disagree	28	22	50	2.043	0.843
Neutral	48	32	80		
Agree	80	65	145		
Strongly agree	41	39	80		
COVID -19 Vaccines are safe for human beings					
Strongly disagree	23	22	45	4.346	0.501
Disagree	28	28	56		
Neutral	82	52	134		
Agree	73	62	135		
Strongly agree	22	15	37		
Many people have been vaccinated have died					
Strongly disagree	17	26	43		
Disagree	87	56	143		
Neutral	70	53	123	8.155	0.086
Agree	37	37	74		
Strongly agree	14	7	21		
One should get vaccinated even if one was once infected with COVID-19 Virus					
Strongly disagree	26	23	49		
Disagree	23	21	44		
Neutral	50	43	93	1.097	0.895
Agree	96	68	164		

Strongly agree	30	22	52		
Washing my hands frequently to prevent COVID-19 is a good Idea					
Strongly disagree	7	18	25	13.733	0.008
Disagree	3	4	7		
Neutral	14	13	27		
Agree	98	86	184		
Strongly agree	103	57	160		
African blood cannot be over powered by COVID-19 so I find it useless to follow SOPs					
Strongly disagree	131	71	202	16.767	0.002
Disagree	55	68	123		
Neutral	12	19	31		
Agree	18	13	31		
Strongly agree	8	8	16		
Why should I stay at home yet my family is starving					
Strongly disagree	66	37	103	9.887	0.042
Disagree	67	42	109		
Neutral	41	40	81		
Agree	32	41	73		
Strongly agree	18	18	36		
Getting vaccinated to prevent COVID19 severe effects is more dangerous than getting the virus it self					
Strongly disagree	52	39	91	2.610	0.625
Disagree	54	50	104		
Neutral	51	40	91		
Agree	44	28	72		
Strongly agree	20	22	42		
I do not want to get infertile so I will not get vaccinated					
Strongly disagree	64	43	107	2.819	0.589
Disagree	65	56	121		
Neutral	53	41	94		
Agree	23	27	50		
Strongly agree	17	13	30		
Most people in my circle follow SOPs					
Strongly disagree	9	7	16	6.427	0.169
Disagree	18	22	40		
Neutral	28	17	45		
Agree	106	100	206		
Strongly agree	58	33	91		
Most people in my community follow SOPs					
Strongly disagree	15	12	27	7.051	0.133
Disagree	26	34	60		
Neutral	53	32	85		
Agree	95	84	179		
Strongly agree	29	16	45		
We should all follow SOPs					
Strongly disagree	9	7	16	6.501	0.165
Disagree	1	5	6		
Neutral	12	11	23		
Agree	69	64	133		
Strongly agree	131	86	217		

As a Christian I know that managing COVID19 require spiritual not SOPs or vaccines					
Strongly disagree	63	56	119		
Disagree	68	51	119	3.255	0.516
Neutral	47	26	73		
Agree	27	26	53		
Strongly agree	17	15	32		
I do not need to observe SOPs or get vaccinated I always steam when I get home					
Strongly disagree	70	59	129	7.680	0.104
Disagree	99	64	163		
Neutral	18	25	43		
Agree	23	25	48		
Strongly agree	10	4	14		
I got vaccinated observe SOPs but still steam when I get home					
Strongly disagree	21	21	42		
Disagree	30	42	72		
Neutral	38	43	81	17.530	0.002
Agree	92	46	138		
Strongly agree	37	20	57		
African traditional concoctions are just as effective in preventing and treating COVID-19, I do not need vaccines					
Strongly disagree	32	32	64		
Disagree	68	51	119		
Neutral	59	40	99		
Agree	43	40	83		
Strongly agree	16	13	29	2.040	0.728
I got vaccinated/plan to but still take African traditional concoctions incase					
Strongly disagree	18	16	34		
Disagree	21	35	56		
Neutral	48	46	94		
Agree	101	60	161		
Strongly agree	30	15	45	13.868	0.008

Source: Primary data

The majority of both female and male respondents reported that they have not yet gotten vaccinated and these were 185 and 144 respondents respectively. Based on the chi square test, it can be concluded that being vaccinated is statistically independent of gender ($X2 = 0.003$, $P>0.05$). Further analysis shows that majority of both female and male respondents reported that everyone above the age of 18 should be vaccinated and these made up 152 and 93 of the respondents respectively. A look at the chi square result indicated that generally the response in regards to who should get vaccinated is statistically dependent on gender ($X2 = 10.927$, $P<0.05$).

Both female and male respondents were in agreement that they would get vaccinated if vaccines were available and these made up 80 and 65 of the respondents respectively. Based on the chi square test it can be concluded that the choice to whether get vaccinated if vaccines were available is statistically independent of gender ($X2 = 2.043$, $P>0.05$). More of the females 82, were neutral on whether COVID -19 vaccines are safe for human beings, however majority of the men 62, agreed that COVID -19 Vaccines are safe for human beings. From the chi-square results it is made clear that the response to whether COVID-19 vaccines are safe for human

beings are statistically independent of gender (X2 = 4.346, P>0.05). The majority of both females and males disagreed to the fact that many people who have been vaccinated have died. The results were 70 and 53 respectively. This response was found to be statistically independent of gender (X2 = 8.155, P>0.05). in addition, majority of both female and male respondents agreed that one should get vaccinated even if one was once infected with COVID-19 virus. This answer was independent of gender.

Washing hands frequently to prevent COVID-19 was reported to be a good idea by both female and male respondents making up 98 and 86 respectively. This response was reported to be statistically dependent of gender (X2 = 13.73, P<0.05). Majority of both female and male respondents strongly disagreed to the assertion that African blood cannot be over powered by COVID-19. In response to whether it is useless to follow SOPs the results were 131 and 71 for women and men respectively. This response was consequently reported to be statistically dependent of gender (X2 = 16.767, P<0.05).

More of both females and males disagreed to the fact that getting vaccinated to prevent COVID -19 severe effects is more dangerous than getting the virus itself. The results were 54 and 50 for women and men respectively. This relationship was reported to be independent of gender (X2 = 2.610, P>0.05). Also, a big section of both female and male respondents disagreed to the fact that they do not want to get infertile, and so will not get vaccinated. This was reported to be independent of the gender of the respondents (X2 = 2.819, P>0.05). Majority of the respondents both female and male agreed to the fact that most people in their circle follow SOPs and these made up 106 and 100 of the respondents respectively. Irrespective of the gender, majority of the respondents strongly agreed that we should all follow SOPs (X2 = 6.5, P>0.05).

The majority of the respondents both females and males reported that they got vaccinated and observe SOPs but still steam when they get home. These made up 92 and 46 of the respondents respectively. Based on the chi square results, this response was statistically dependent of gender X2 =17.53, P<0.05). Majority of both female and male respondents disagreed to the fact that African traditional concoctions are just as effective in preventing and treating COVID-19, and so they do not need vaccines. Also, majority of both female and male respondents agreed that they got vaccinated/plan to but still take African traditional concoctions. This response was statistically dependent on gender (X2 = 13.86, P<0.05).

Discussion

The findings from this study provide a nuanced understanding of the influence of gender on health-seeking behavior and risk perception during the COVID-19 pandemic in Uganda. While earlier research has often painted a binary picture of gendered health behavior—typically portraying women as more health-conscious and risk-averse, and men as more reluctant and risk-prone (Hatchell et al., 2013; Montesi, 2021)—the data from this study suggests a more complex dynamic.

First, the support for COVID-19 vaccination among female respondents was notably higher than among their male counterparts. This aligns with broader literature indicating that women generally show more trust in health authorities and are more likely to adopt preventive health measures (Bidmon & Terlutter, 2015; Galasso et al., 2020). The statistical dependence between gender and support for vaccination among adults underscores the continuing influence of gendered social norms in shaping attitudes toward public health interventions. Women, who are often positioned in caregiving roles both in the household and health sectors, may perceive a greater responsibility to protect themselves and others, thereby increasing their health-seeking intentions.

However, while gender differences emerged in some attitudes and practices, especially those involving preventive behavior and acceptance of traditional medicine, the data also revealed numerous instances where responses were statistically independent of gender. For example, both female and male respondents largely rejected conspiracy theories about vaccine safety and COVID-19 mortality, signaling a shared skepticism toward misinformation and a common tendency toward evidence-based understanding of the pandemic. This contradicts earlier studies, such as Cassese et al. (2020), which suggested men are more likely to endorse

conspiracy theories. This could reflect an increase in public health awareness over time or a context-specific pattern of information access and trust in Uganda.

Interestingly, while both genders endorsed vaccination, women were more likely to report supplementing it with traditional remedies. This finding is statistically significant and offers insight into the intersection of modern and traditional health beliefs, particularly among women. It may reflect not only cultural trust in indigenous practices but also a broader tendency among women to take a multifaceted approach to health—blending formal healthcare with informal or traditional systems, as highlighted by Shaikh & Hatcher (2005).

The gendered differences in adherence to standard operating procedures (SOPs) also merit attention. Females were more compliant with SOPs, while males were more likely to find them "useless," a finding statistically dependent on gender. This observation reinforces previous work (Galdas et al., 2005; Hatchell et al., 2013) suggesting that men's lower perceived vulnerability and cultural constructions of masculinity can reduce their engagement in health-promoting behavior. The rejection of SOPs by a significant portion of male respondents could be attributed to these identity dynamics, where protective behaviors may be viewed as incompatible with ideals of male independence or invulnerability.

Yet, the fact that both male and female respondents expressed willingness to get vaccinated, observed SOPs, and acknowledged the importance of vaccination even after recovering from COVID-19, suggests a growing public acceptance of health messaging across gender lines. This reflects positively on the role of effective risk communication, as discussed by Fischhoff et al. (2018), and shows that consistent, credible messaging can mitigate gender-based disparities in health response.

Conclusion

Overall, while gender remains a relevant factor in understanding health-seeking behavior, particularly in contexts involving new health threats, this study demonstrates that behaviors are not universally defined by gender alone. The interplay of information access, personal risk perception, cultural beliefs, and trust in health systems appear to mediate these behaviors in significant ways. Importantly, these findings call for more gender-sensitive but not gender-exclusive approaches to public health communication and intervention, particularly in crisis settings like pandemics. Interventions must be rooted in cultural awareness, address social norms, and emphasize inclusive communication to be effective across gender groups.

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