

Effects of perceived severity COVID-19 television messages vaccine adoption behavior among youths in Kiambu County, Kenya

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ABSTRACT

Covid-19 was a global health crisis that caused widespread deaths between December 2019 and 2022. The World Health Organization declared it a pandemic due to its novelty, rapid spread, and severity. Fortunately, infections could be prevented through vaccination, which was free and widely available. The media, especially television, played a major role in communicating the seriousness of the pandemic. This study was guided by the Extended Parallel Processing Model (EPPM), which explains how individuals respond to fear-based health messages depending on perceived threat and efficacy. The study aimed to analyze the effects of perceived severity of Covid-19 television messages on vaccine adoption behavior among youths in Kiambu County. A mixed-methods approach was used. Qualitative data were drawn from television news coverage on Citizen TV, Kenya Television Network (KTN), and Nation TV, while quantitative data were collected from 346 youth respondents using questionnaires. Findings showed that 98.8% of respondents perceived Covid-19 as severe, while 1.2% did not. The chi-square test results were statistically insignificant ($\chi^2 = 0.504$, $df = 1$, $p = 0.478$), with an adjusted odds ratio [AOR: 0.459, 95% CI], and an insignificant p-value (0.502) from analysis of variance. The study concluded that perceived severity of Covid-19 television messages had no significant effect on vaccine adoption among youths. According to the EPPM, high threat perceptions without matching efficacy cues can trigger defensive reactions such as denial or avoidance. Therefore, effective health communication should combine severity and efficacy to encourage vaccine uptake.

Key words: Adoption Behavior, Covid-19, Perceived Severity, Pandemic, Vaccine

I. INTRODUCTION

The novelty, severity, and spread of the COVID-19 pandemic since December 2019 have been a major global concern. The pandemic was a leading cause of death, where in a span of less than two years, by May 2022, approximately 6.3 million people were reported dead globally (World Health Organization [WHO], 2022), and in Kenya, over five thousand deaths were recorded (WHO, 2022b). The World Health Organization declared COVID-19 a pandemic in March 2020, with active infections cutting across all ages (WHO, 2022). The severity of the virus ranged from mild to critical, with risks increasing with age. However, with increased awareness of preventive measures such as mask-wearing, hand washing, and social distancing, the number of deaths was reduced, and new infections controlled.

COVID-19 vaccines were provided free of charge and made available in most health facilities (Ministry of Health Kenya, 2021b). Despite this, vaccine uptake remained low. Out of about 50 million eligible Kenyans, only 31.0% were fully vaccinated (WHO, 2022). The low adoption was attributed to several factors, including fear of side effects, poor knowledge, misconceptions associated with vaccines, and the nature of messages distributed by the media (Muchiri et al., 2022). According to Zheng et al. (2022), with the rise in global COVID-19 confirmed cases, deaths, and mutations of the virus, the media, and more specifically television, was swift in disseminating response plans and public health guidelines from the World Health Organization (WHO, 2022). Similarly, Ranjit et al. (2021) observed that the increase in COVID-19 cases and their severity was fueled by globalization and increased human interaction. Therefore, individuals' ability to understand and adopt control measures was heavily influenced by the nature of the messages they received.

As suggested by De Luca and Calabrò (2020) and Chaiuk and Dunaievska (2020), media coverage of pandemics can create challenges because people react differently to media-induced fear. Furthermore, Yoshioka and Maeda (2020) noted that the use of severity-related words such as “killer disease”, “death”, “painful”, and “expensive”, or statements such as “COVID-19 is a serious threat to health” and “contracting COVID-19 has negative

consequences”, elicited various perceptions and behaviours within society. Beyond the extent of coverage, media techniques such as the framing of risks, the use of metaphors, and symbolic imagery play a critical role in shaping how audiences perceive threats (De Luca & Calabrò, 2020; Chaiuk & Dunaievskaya, 2020). Consequently, excessive information and "infodemics" during pandemics can generate widespread fear and panic across populations.

Further research by Carey and Sarma (2016) on threat appeals in health communication shows that health campaigns often use threat-based narratives to highlight the potential consequences of health risks. Severity campaigns are prominent because messages targeting fear and cognitive mechanisms can influence behaviour. Similarly, perceived severity messages in pandemic communication are expected to capture public attention. Witte (1992) concluded that severity messages cause audiences to interpret content with fear, triggering anxiety and anticipation of negative outcomes if protective action is not taken.

According to Maynard et al. (2018), health warning labels emphasize the seriousness of diseases, thereby influencing intentions and attitudes toward behaviour change. Severe messages may increase preventive intentions and evoke strong emotional reactions; however, in some cases, they may provoke defensive responses. Depending on how they are presented, such warnings can either be perceived as credible or be dismissed. Individuals who fail to alter risky behaviours often exhibit high levels of risk-minimizing beliefs, perceiving the danger as exaggerated or distant.

Although global and local research highlights the central role of media in shaping public health responses, there is limited empirical evidence on how the perceived severity of COVID-19 television messages specifically influenced vaccine adoption behaviour among Kenyan youths. Existing studies have largely focused on general awareness, misinformation, or vaccine hesitancy but have not examined how the perceived severity framing of television messages shaped behavioural outcomes. This gap necessitated an investigation into whether television's severity-based COVID-19 messages motivated or discouraged vaccine uptake among youths in Kiambu County. Accordingly, this study sought to analyze the effects of perceived severity of COVID-19 television messages on vaccine adoption behaviour among youths in Kiambu County. The null hypothesis was stated as below:

1.1 Statement of the Problem

Despite continuous communication efforts to promote COVID-19 vaccination in Kenya, vaccine uptake remained low, with only 31.0% of the eligible population having been fully vaccinated (WHO, 2022). This low adoption rate persisted even though vaccines were provided free of charge in public health facilities and accompanied by extensive health communication campaigns through the mass media (Ministry of Health Kenya, 2021b). Since the outbreak of COVID-19 in December 2019, the virus had caused millions of deaths globally, with over three hundred thousand infections and more than five thousand deaths reported in Kenya (WHO, 2022b). Television, as one of the most influential media platforms, played a leading role in conveying information about the pandemic's severity, risks, and preventive measures (Yoshioka & Maeda, 2020).

However, existing evidence showed that while messages emphasizing the severity of a health threat could create awareness, they could also evoke fear, anxiety, and defensive reactions that discouraged protective behaviours (Glanz et al., 2011). According to the Extended Parallel Processing Model (EPPM) and the Health Belief Model (HBM), perceived severity is a key determinant of health behaviour, but when individuals feel overwhelmed by fear and lack confidence in their ability to act, they often engage in avoidance or denial instead of preventive action.

In Kenya, particularly among youths, the extent to which television's severity-based messages influenced vaccine adoption behaviour had not been clearly established. Previous studies mainly focused on vaccine hesitancy, misinformation, and general awareness but did not examine how the perceived severity framing of COVID-19 television messages affected vaccination decisions. Therefore, this study sought to analyze the effects of perceived severity of COVID-19 television messages on vaccine adoption behaviour among youths in Kiambu County, thereby addressing this gap and contributing to a better understanding of effective health communication during pandemics.

1.2 Research Hypothesis

H₀₁: Perceived severity Covid-19 television messages have no significant effects on vaccine adoption behavior among youths in Kiambu County

1.3 Theoretical Framework

This study was guided by the Extended Parallel Process Model (EPPM) developed by Witte (1992) and the Health Belief Model (HBM) (Jones et al. 2015). Both theories explain how individuals interpret health messages and make decisions regarding preventive health behaviours such as vaccination.

The Extended Parallel Process Model (EPPM) explains how individuals respond to fear appeal messages in health communication. According to Witte (1992), behavioural responses are influenced by perceived severity, perceived susceptibility, response efficacy, and self-efficacy. Perceived severity refers to an individual's belief about the seriousness of a health threat and its consequences. The model proposes that when people perceive a health threat as severe and believe they can effectively protect themselves, they are more likely to adopt the recommended

behaviour. However, when fear is high and efficacy is low, individuals may reject or avoid the message instead of taking protective action. In this study, the EPPM was used to explain how severity-based COVID-19 television messages could influence vaccine adoption among youths in Kiambu County.

The Health Belief Model (HBM) explains health behaviour based on individuals' perceptions of disease risk and the expected benefits of preventive action (Jones et al. 2015). The model comprises perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy. Perceived severity refers to the belief that a disease has serious health, social, or economic consequences. The HBM suggests that individuals are more likely to adopt preventive behaviours when they perceive a disease as serious and believe that the recommended action is beneficial and achievable.

The two theories complement each other by emphasizing perceived severity as an important determinant of health behaviour. The EPPM explains behavioural responses to fear-based television messages, while the HBM explains how individuals evaluate health threats before making vaccination decisions. Therefore, these theories provided the theoretical foundation for examining the effect of perceived severity of COVID-19 television messages on vaccine adoption behaviour among youths in Kiambu County.

II. LITERATURE REVIEW

Perceived severity is an important determinant of human behaviour, as highlighted in the Extended Parallel Processing Model (EPPM) and the Health Belief Model (HBM), both of which emphasize the significance of the seriousness of a threat in shaping behavioural responses (Vermandere et al. 2016). The concept of perceived severity refers to the degree to which an individual perceives a health threat or risk as serious or life-altering. The elements of severity messages influence how decisions are made by information consumers. The perceived seriousness of a threat also influences how messages are crafted and delivered to elicit the desired behavioural response.

According to Vermandere et al. (2016), health behaviour theories suggest that increased perceived severity leads to heightened precautionary reactions. As such, threat perception drives behaviour, although the specific actions taken are determined by an individual's beliefs about the available behavioural options for countering the threat. Nevertheless, attitudes and intentions do not always translate into healthy or protective behaviours (Jones et al. 2015). This indicates that while perceived severity triggers awareness and concern, it does not automatically result in behavioural compliance unless accompanied by self-efficacy and response efficacy.

Sell et al. (2018) observed that individuals acquire behaviours, views, and beliefs based on the threat-based narratives continuously disseminated through the media they consume over time. People often find it difficult to draw conclusions about events they have never directly experienced; consequently, their perceptions are shaped by mediated representations. As a result, they may lack a clear understanding of what they truly desire or what the perceived threat means to them personally. This underscores the role of media framing and narrative construction in shaping public understanding of health risks.

As suggested by Sell et al. (2018) media coverage of pandemics often created psychological and social challenges. People reacted differently to media-fueled severity messages, depending on their pre-existing beliefs, emotional resilience, and access to credible information. Yoshioka and Maeda (2020), further noted that the frequent use of severity-related words and phrases in media content, such as “killer virus,” “deadly disease,” “death toll,” “painful,” or “expensive treatment”—heightened public perceptions of danger. Statements such as “Covid-19 is a serious threat to health” or “contracting Covid-19 has negative consequences” reinforced public anxiety and consequently influenced behaviour such as panic buying, social withdrawal, or over compliance with health advisories.

Beyond the use of language, extensive media coverage employed various techniques to shape public perception of risk. These included the volume of information provided, the framing of risk narratives, and the use of metaphors and symbols that conveyed urgency and fear (Sell et al., 2018). Such strategies amplified the salience of health threats. The global spread of both factual and misleading information often referred to as an *infodemic* instilled terror and confusion on a large scale. Continuous exposure to alarming news about pandemics, coupled with exaggerated threat portrayals, heightened public anxiety and influenced decision-making processes. In many cases, this led to panic-driven and misinformation-based behaviour that undermined rational public health responses.

During the Covid-19 pandemic, Chaiuk and Dunaievska (2020) noted that the media played a leading role in framing the virus as a “killer pandemic” and emphasizing its severity. Within societies, the common drivers of compliance with pandemic control measures such as mask wearing, vaccination, and social distancing were heavily influenced by media portrayals. Fear, negative attitudes, misconceptions, and stigma emerged as both motivators and barriers to health behaviour. The inability of individuals to manage fear, coupled with misinformation spread by some media outlets, complicated the adoption of mitigation measures recommended by both national and supranational entities such as the World Health Organization.

Severity framing became a dominant media trend, though not without negative consequences. Gollust et al. (2019) cautioned that overemphasizing threat severity could produce adverse outcomes for individuals, organizations, and public health systems. Exaggerated portrayals of pandemics could fuel public panic, economic instability, and distrust in health authorities. The prominence of severity-based messages during the Covid-19 pandemic demonstrated both the power and danger of media influence. It became necessary to critically analyze how televised messaging influenced public mitigation efforts and response stages during pandemics.

In conclusion, perceived severity remained a pivotal factor in health communication and behavioural change. It determined how individuals interpreted, internalized, and acted upon health messages. While high perceived severity could motivate action, it could also induce fear and defensive avoidance if not balanced with efficacy cues. Therefore, the design of health communication strategies, especially during pandemics needed to carefully balance the portrayal of severity with credible information, empathy, and empowerment. The role of the media, as both messenger and mediator, was central in shaping public responses to health crises and ensuring that fear-driven narratives transformed into informed, proactive behaviour that safeguarded public health.

III. METHODOLOGY

3.1 Study Design

A mixed method methodology was adopted for the study. The data was analyzed qualitatively and quantitatively for validity of the study. The qualitative and quantitative data employed cross-sectional research design while qualitative data used content analysis. The cross-sectional research design was applied to measure the outcome of television messages on Covid-19 versus the adoption of Covid-19 vaccine among Kiambu County youth. The cross-sectional research design accounted for acceptance and rejection adoption behavior and the accompanying exposures (Kothari, 2004) of Kiambu county youths especially when the vaccines were made available to every Kenyan; 23rd August to December 2021, the period in which national Covid-19 vaccination in the country was rolled out (Ministry of Health Kenya, 2021b).

3.2 Target Population

For qualitative data, the messages were transcribed from the Citizen TV, KTN and NTV YouTube news content on Covid-19. Based on the Media Council of Kenya they are most watched television stations in Kenya with Citizen TV at 27%, KTN at 11% and Nation TV at 9%. 58% of Kenyans consume television content in a day with news content most watched (Media Council of Kenya, 2021).

Further, for inclusion and exclusion of Covid-19 news videos, extensive filtering and search on YouTube was done using titles (titles on Covid-19 pandemic), dates (23rd August to December 2021), durations (5 minutes and above), views (a thousand views and above), key words, and phrases touching on perceived severity, susceptibility, and efficacy beliefs. Out of 106 videos found, only the first 30 news videos on higher counts viewership were taken for analysis for the three TV stations. The following sampling frame for television messages was adopted:

Table 1

Sampling Frame for Television Messages

TV station	Percentage of viewership	No. of videos
Citizen TV	27%	17
KTV	11%	7
NTV	9%	6
Total	7%	30

The youths in Kenya, are defined by the constitution as individuals under the age bracket of 18-35years. Based on a study by Osur et al. (2022), on youths' hesitancy on Covid-19 vaccine, 52.0% out of 91.0 % of youths in Kenya had theories not to go for vaccines. They had a belief that the virus was not severe on youths, their immune was intact and waited to see how others reacted to vaccines. Thus, an indicator was that the number of youths going for vaccines was very low (Osur et al. 2022).

Going by the report from Ministry of Health Kenya dated 30th May 2022, approximately 8.45 million people had been fully vaccinated against Covid-19 country wide with only 579458 people from Kiambu country. This statistics of the fully vaccinated people in the county was very low (Ministry of Health Kenya, 2021b) against the MoHK 1.7 million people target by December 2021.

The study was narrowed down to Thika Town Constituency, Ruiru constituency and Kiambaa constituency in Kiambu County. The constituencies had five and above Covid-19 vaccine centers (Ministry of Health Kenya, 2021a). Thika Town constituency is highly populated; most developed and has the highest number of hospitals while Ruiru and Kiambaa Constituencies comes as 2nd and 3rd in the list of the constituencies that had the highest number of

vaccine centers. In addition, out of the 53 Covid-19 vaccine centers, 13 of them were in Thika Town Constituency, Ruiru constituency had 8 and Kiambaa town constituency had 6 centers (Ministry of Health Kenya, 2021a).

3.3 Sample Size

Based on the target population a sample size of 384 youths in Kiambu County was determined using Fisher et al (1935), formula.

$$\text{Where: } n = \frac{Z^2 pq}{d^2}$$

n= the desired sample size (if the target population is > 10,000).

If there is no estimation available for the proportion in the target population the values for Z, p, q, and d are used as defined below.

Z= the standard normal deviation, set at 1.96, which corresponds to 95% confidence level.

P= the proportion in the target population estimated to have characteristics being measured. If there is no reasonable estimate, then use 50% (0.05)

q= p-1

d= the degree of accuracy set; it is usually set at 0.05 confidence level corresponding to 1.96.

$$n = \frac{(1.96)^2 (.50) (.50)}{(.05)^2}$$

$$= 384 \text{ youths}$$

The proportion of youths used in different constituencies were as illustrated in the Table below

Table 2

Proportion of Youths from Constituencies

Location	Youths	Vaccine centers
Thika town Constituency	185	13
Ruiru Constituency	114	8
Kiambaa Constituency	85	6
Total	384	27

Source: (MoHK, 2021)

3.4 Sampling

In this study the researcher used criterion sampling to select television messages on Covid-19 aired between August and December 2021. The researcher made extensive search on YouTube for news videos on Covid-19 by Citizen TV, NTV and KTN that were aired between 23rd August and December 2021. Further, for inclusion and exclusion of news videos, the researcher used filters such as the titles of the videos, durations, and views. Further, key words and phrases touching on perceived severity, susceptibility, and efficacy beliefs were employed. Only the first 30 news videos on higher counts viewership were taken for analysis for the three TV stations.

Additionally, the researcher used simple random sampling and convenience sampling technique for respondents of the questionnaires. The simple random sampling enabled the researcher in selecting contributors who were clearly defined by obtaining list of constituencies in Kiambu County, then list of Covid-19 vaccine centers in each constituency, then selection was done on any constituency with five and above vaccine centers. Kiambu County has 12 constituencies, all the constituencies had Covid-19 vaccine centers and out of the 12, 3 constituencies had five and above Covid-19 vaccine centers (Ministry of Health Kenya, 2021a).

Further, the convenience sampling allowed selection of contributors in a deliberate way and relevant practical criteria such as accessibility, proximity, availability, and willingness of participation respectively (Farrokhi & Mahmoudi-Hamidabad, 2012; Crossman, 2020; Kombo & Tromp, 2006). According to Kothari (2004), convenience sampling allows non-random sampling of samples close to the location of study, accessible, available, and willing to partake in the study.

3.5 Pilot test

The pilot was done to identify potential gaps and measure internal consistency of the research questionnaires. To ensure the research instruments gave reliable and valid results, a pilot test was conducted among youths in Nairobi County. The questionnaires were administered to 30 respondents: 10.6% of the samples size without missing value. For reliability of the questionnaires Cronbach's Alpha was used. The minimally acceptable measure of reliability has been 0.70. For reliability test, there were six items that were under scrutiny. From the findings, the research tool was reliable and had an alpha coefficient above 0.7 and no item was removed from the series. Regarding validity, Correlation Pearson's was used, the p value for validity was 0.001 (If Sig. < 0.05 instruments are valid).

IV. FINDINGS & DISCUSSION

4.1 Perceived Severity Elements

To determine the television messages on Covid-19 the researcher analyzed different YouTube video clips using qualitative content analysis. The news videos were compressed into transcripts using Rask AI and YouTube software. The transcripts allowed the researcher to make suggestions. Out of 17 videos analyzed from Citizen TV, 17 videos had perceived severity elements, further, 7 videos from KTN had perceived severity elements, and 6 videos from NTV had perceived severity elements.

These findings demonstrated that during any pandemic the media and for this study television used different frames for information and influence on publics. In health messages, the possible behavioural decisions are dependent on the presentation of messages. According to Kothari (2004), the degree of severity is described using terms as mild, moderate, profound and severe. Severe messages are used often to reduce unhealthy behavior. However, this is not always the case since the threatening messages result in defensive mechanism (Carey & Sarma, 2016). The severity messages usually have informative and warning elements where scary pictures and information (Covid-19 Kills, Covid-19 is a killer disease) is widely used. The Kenyan news on Covid-19 had such terms and the severe messages came in to warn or inform the society, for example.

"This Monday the country has recorded 3297 new COVID- 19 cases out of a sample size of 4003 this is a positivity rate of 30.1 percent..." From KTN news (<https://youtu.be/h1QZL2Vlm7M>)

Further as echoed by the former Health Cabinet secretary:

"If we continue to behave normally, the disease will treat us abnormally wear mask, keep distance, sanitize always and save lives..."

Further from Daily Nation:

"The new, weird symptoms associated with Covid-19 by Elizabeth Merab (06 June 2020)

What you need to know:

Relatively new symptoms include diarrhea, acute kidney failure and low blood pressure due to inflammation of the heart muscles. Increasingly, Kenyan patients who test positive for the virus are also reporting that they cannot taste or smell. Even worse is the fact that most of these difficult-to-identify symptoms can only be detected when the patient is hospitalized. Fever, dry cough, fatigue, sore throat, aches and pains are most reported symptoms...However as the virus spreads. It is emerging that these are not the only symptoms to look out for. For instance, people have presented less typical symptoms such as nausea, diarrhea, delirium, loss of smell and taste...people with vague, atypical symptoms of Covid-19 may go on to develop more classical symptoms...How Covid-19 presents differs from individual to individual..."

Further, from the analysis, it was noted that at the onset of the pandemic the Covid-19 messages had severity and susceptibility appeals, however as the pandemic progressed the messages had more of severity appeal and response efficacy appeal. This agrees with fear appeal theories that threatening messages cannot always be effective not unless the severity messages are combined with coping messages (Witte, 1992; Jones et al., 2015); *feelings of can be done to avert Covid-19*. For example, borrowing from *WHO Director-General's open remarks at media briefing on Covid-19 -11th March 2020*. The media briefing had a lot of fear/threat appeals.

"...in the past two weeks, the number of cases of Covid-19 outside China has increased 13-fold, and the number of affected countries has tripled. There are now more than 118, 000 cases in 114 countries and 4291 people have lost their lives. Thousands more are for their lives in hospitals. In the days and weeks ahead, we expect to see number of cases, the number of deaths and the numbers of affected countries climb even higher. WHO has been assessing this outbreak around the clock and we are deeply concerned by the alarming levels of spread and severity, and by the alarming levels of inaction. We have therefore made assessment that Covid-19 can be characterized as a pandemic. Pandemic is not a word to use lightly or carelessly. It is a word that if misused it can cause unreasonable fear or unjustified acceptance that the fight is over, leading to unnecessary suffering and death... We have never seen before a pandemic sparked by Coronavirus. This is the first pandemic...and we have called every day for countries to take urgent and aggressive action. We have rung the alarm bell loud and clear..."

Noticeably from the analysis it is reported that the severity messages were in all the television messages aired during the pandemic and preventive campaigns materials. For example, transcriptions of the YouTube videos as aired by the three sampled TV stations.

From Citizen TV;

COVID-19 positivity rate hits 24.4% as MoH reports 1,372 new cases

"We begin the bulletin with the deepening COVID- as the country witnesses' resurgence of infections with the positivity rate hitting as hospital admissions continue to soar. Nairobi, Kiambu and Machakos counties lead in the number of infections. Here are more details from our reporter...The surging rate of COVID- nineteen infections has been the cause of worry in the country over the last few days. The latest statistics by the Ministry of Health showing a high positivity rate of twenty-four-point four percent from a sample size of five thousand six hundred and thirty-five that was tested in the last twenty-four hours. One thousand three hundred and seventy-two people tested positive for COVID- nineteen within the same period. Nairobi County leads with the number of new infections at eight hundred and thirty-six..." (https://youtu.be/2sbOZf_wIU4).

Further from NTV;

BATTLE FOR BREATH; Exclusive look into Kisumu's COVID-19 wards

"I have seen seven people die by my side. I would feel that the next minute I was also going"- Daniel Achieng "Oxygen supply is something that no one should joke with at this juncture" - Jayson Ogova (<https://youtu.be/ctbkyuEIHns>)

From KTN;

COVID SITUATION IN KENYA: 1,354 new positive cases recorded out of a sample size of 5,331

"This Monday the country has recorded 3297 new Covid- 19 cases out of a sample size of 4003 this is a positivity rate of 30.1 percent that is 10 new death have been reported from the disease raising the death toll to 5394..." <https://youtu.be/h1QZL2Vlm7M>

4.2 Statistical Findings

The study sought to analyze the effects of perceived severity Covid-19 messages on vaccine adoption behavior among youths in Kiambu County. The findings were as presented in the tables below.

Table 3

Severity Category

Severity Category	Frequency	Percent
Not severe	4	1.2
Severe	335	98.8
Total	339	100.0

From the score and categorization of the six perceived severity elements, (where a scale of 0-14.5 was categorized as not severe and a scale of 14.6-30 was categorized as severe), 98.8% youths perceived the pandemic as severe while 1.2% perceived pandemic as not severe.

Table 4

Perceived Severity Statistical Findings

Binary Logistics Regressions		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	Severity	-.780	1.160	.452	1	.502	.459
	Constant	1.878	2.312	.660	1	.417	6.541

As demonstrated in Table, the P value is greater than 5% which implies there was no statistical relationship between perceived severity Covid-19 television messages and vaccine adoption behaviour among youths in Kiambu County. The P was 0.502. Based on the findings, the results are agreeing with the null hypothesis:

H₀₂: Perceived severity Covid-19 television messages have no significant effects on the Covid-19 vaccine adoption behaviour among youths in Kiambu County.

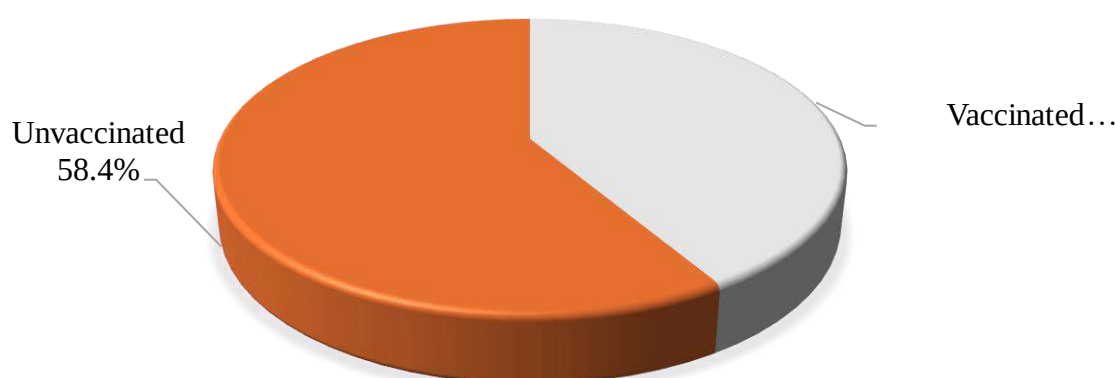
Further, to find out whether perceived severity Covid-19 television messages had statistical influence on Covid-19 vaccine uptake among youths in Kiambu County, Chi-square test, odds ratio and analysis of variance was done. The Chi-square test returned a statistically insignificant results ($\chi^2=0.504$, $df=1$, $p=0.478$). Additionally, analysis of variance regarding the two categories of respondents (not severe and severe category) returned statistically insignificant results with a p value of 0.502.

The odds ratio's computation, the study revealed that the odds of vaccine adoption among youths in Kiambu County who perceived the pandemic as severe was 0.5 times compared to those who did not perceive the pandemic as severe [AOR: 0.459, 95% CI]. This implied that the youths who perceived the Covid-19 pandemic as severe were not more likely to adopt the Covid-19 vaccines compared to the youths who perceived the Covid-19 pandemic as not severe. The statistical findings on severity messages demonstrate that the severity messages did not have statistical influence on vaccine adoption among youths in Kiambu County. These findings disagree with prior research, that the more severity is portrayed the more the uptake of the expected behavior. This is because messages can only generate optimal behavioural changes if they affect perceived barriers, efficacy beliefs, threats and benefits (Jones et al. 2015).

According to De Luca and Calabrò (2020), perceived severity alters how decisions are made by information. People acquire certain behavior, views and beliefs based on the threats views of the media they are exposed to over time. Messages that elicit fear and enhance perceived efficacy positively, the health communication present threat-based narratives of potential consequences of health risks. The severity campaigns are prominent in health campaigns. Severity messages targeting fear and cognitive mechanisms can affect behavior (Glanz et al. 2011).

According to Witte (1992), severity messages change attitudes, intentions and behaviors. Severity messages have the function of a drive; that is exposure to severity messages may lead to information search responses in order to reduce risks and vulnerability and the opposite is likely to happen due to fear. High levels of fear fail and induce defensive reaction which undermines persuasion. That is if messages induce fear and fail to raise perceived efficacy defensive reactions are developed; at some point severe messages objective is to increase persuasion but at some point, the emotional tension gets to a point at which the reassuring recommendation does not sufficiently reduce tension. Decreasing fear of getting contraction is key aspect in determining the vaccination decision.

4.3 Vaccine Adoption among Youths



The study found out that majority of youths in Kiambu County had not been vaccinated. 202 (58.4 %) out of 346 youths had not received vaccines and 144 (41.6%) youth had been vaccinated with different vaccines. Media is a key tool in fight against pandemic. This is because how the media designs and disseminates news influences mitigation measures. Increasing vaccines hesitancy was noted globally (Kennedy, 2020; Richmond et al. 2020).

This finding collaborates with Osur et al. (2022), that regardless of availability of Covid-19 messages and free vaccines the uptake of the same remained low among youths. 65.0% of youths correlated their rejection of vaccines to information, drug effectiveness and safety 42.0% and 45. % respectively. Further, Sileo et al. (2024), notes that there was hesitancy of Covid-19 vaccine adoption across different demographics.

4.4 Discussion

The study elucidates found that all the videos watched from the three TV stations had severity elements. However regardless of a lot of severity messages on Covid-19, the vaccine uptake was low. According to Vermandere et al. (2016), increased perceived severity may increase precautionary responses, as such threat drives behavior, and however the actual action is determined by efficacy beliefs on countering the threat. Fear arousal messages may not always lead to adoption of recommended responses. Therefore, the perceived severity may not always translate to positive behavior (Jones et al. 2015). The main aim of pandemic messages is to create awareness for change, thus balancing of messages is key (Adolphs et al. 2023).

Further, media coverage of scientific evidence about vaccine safety and pandemic is effective at increasing acceptance among the public, but the effect may be diminished when the messages are focused on the side effects of vaccines. According to Siddiqi (2024), there are other variables that affect vaccine uptake decision. The effects entail

fear of vaccine side effects, susceptibility information rate, and propaganda aired via the media. Similarly, Osur et al. (2022) reported that youths reject vaccines due to conflict with culture and inadequate information.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

The study found that there was low vaccine uptake amongst youths was low where only 42% youths had been vaccinated and 58% youths had not received Covid-19 vaccines. This implied that the severity Covid-19 messages did not lead to vaccine adoption. From the categorization analysis 98.8% youths perceived the pandemic as severe while 1.2% perceived pandemic as not severe. The severity messages elicit fear which leads to danger control or not. Severity messages are aimed at reducing unhealthy behavior. However, this may not always be the case because the threatening messages may lead to defensive mechanism.

5.2 Recommendation

Based on the findings of this study, perceived severity television messages on Covid-19 pandemic did not influence vaccine uptake rate among youth in Kiambu County. Therefore, this offers a starting foundation for scholars to find out: what informs the television when covering health pandemics and other health matters. Previously, studies on pandemics have majored of social media messages and radio. Similar studies on the role of opinion leaders and authority leaders during a pandemic in relationship to acceptance of control measures put in place.

Declaration of Interest

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