

Assessing journalists' language tone and sources used in reporting HIV/AIDS information in Tanzanian newspapers

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Abstract

This paper assesses the tone of the language and the key sources used by the journalists when reporting HIV/AIDS information in Tanzania's newspapers for six years between 2002–2004 and 2017–2019 respectively. Two leading broadsheets published on daily basis, the *Daily News* and *Mwananchi* were selected. Content analysis and discourse analysis were used as the data collection and analysis methods. Microsoft Office Excel 2010 was used to analyze quantitative data whereas NVivo was used to analyze qualitative data. The findings indicate that the language employed was offensive, discouraging, and laden with complex terminology. Additionally, the study uncovered an optimistic and positive tone in the messages, yet the structure of sentences lack persuasiveness. Moreover, the findings underscore a reliance on international sources for HIV/AIDS information. The research suggests that the overall language employed was inadequate. It asserts that despite the usage of positive tone, yet the language employed lack constructive, informative qualities and not suitably framed for the easy comprehension of their target audience. Furthermore, the findings advocate for journalists to consistently seek improved language tone for conveying HIV/AIDS information to the public. Moreover, the current study proposes that media outlets should provide training to the journalists on the good techniques of framing HIV/AIDS information covered in Tanzanian newspapers for awareness creation. This study contributes to the existing body of knowledge on the journalists' importance of using positive language tones when covering and reporting HIV/AIDS information in the newspapers for awareness creation in Tanzania.

Keywords

HIV/AIDS, language tones, information coverage, media coverage, content analysis, discourse analysis, Tanzania

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Introduction

HIV/AIDS continues to pose a significant global challenge. According to the United Nations AIDS (UNAIDS) report of 2024, an estimated 39.9 million individuals were living with HIV/AIDS worldwide in 2023, with approximately 1.3 million people newly infected with the virus. Africa remained the epicenter of the HIV/AIDS epidemic, leading in both death rates and new infections. In 2023, 26 million people in the region were reported to have been living with HIV/AIDS. Despite making up only 6.2% of the global population, Eastern and Sub-Saharan Africa

(SSA) bear the greatest burden, accounting for over half (51% or 20.5 million) of all HIV/AIDS cases worldwide. Additionally, the region leads in HIV/AIDS-related deaths, with 240,000 reported in 2023 (UNAIDS, 2024). These statistics underscore the pressing need for intensified efforts in combating the spread

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of the virus in these areas. Furthermore, Sawe (2017) highlights the gravity of the situation in Tanzania, where HIV/AIDS ranks as the primary cause of death, surpassing other diseases by 17%. This also underscores the urgent need for comprehensive strategies including coverage of HIV/AIDS in the print media such as newspapers for creating the need to address the prevalence and impact of HIV/AIDS, particularly in regions heavily affected like Tanzania and across SSA.

HIV/AIDS emerged as the first illness to command significant media attention, surpassing others in coverage (Machungo, 2012). Its impact extends beyond Africa, affecting the global community. Misunderstandings and the intricate nature of transmission, prevention, treatment, and cure contribute to this global challenge. In addressing these misconceptions and complexities, society demands earnest, transparent, and informed discussions in policy and scientific circles concerning the pandemic. Media reports play a crucial role in shaping societal perceptions, both domestically and internationally (Akankunda et al., 2022). Mass media serve as invaluable educators, influencing public knowledge and policy decisions on a wide array of issues (United Republic of Tanzania [URT], 2001; Agegnehu and Tesema, 2020). Platforms such as television, radio, newspapers, magazines, and the internet serve as arenas for shaping and deliberating national and global agendas, including those related to HIV/AIDS. Consequently, understanding the nuanced dimensions of critical issues, be they private, public, national, or international, like HIV/AIDS, necessitates a critical examination of media coverage (Head et al., 2013).

In Tanzania, mass media have played a significant role in executing various campaigns aimed at disseminating knowledge and understanding about disease transmission, prevention, and treatment (Kanyika and Elia, 2021). One notable campaign was the “Fataki” initiative, which highlighted the dangers of early sexual engagement, featuring a character known as “Fataki,” an elderly man who entices schoolgirls using food stuffs particularly roasted Irish potatoes commonly known as “chips mayai” and some few coins. By utilizing mass media such as newspapers, television and radio as campaign tools, awareness was successfully raised among school girls and the broader public about the risks associated with premature sexual activity (Mwani, 2011). Additionally, another prominent campaign facilitated by the media was the “Femina Health

Information Project.” This initiative was also disseminated through newspapers, television, radio, and magazines which proved to be a fruitful endeavor in raising awareness, particularly among the youth, about sexual practices and reproductive health. Through these mass media channels, the campaign succeeded in educating society about crucial health-related matters. More importantly, Kiptinness and Kiwanuka-Tondo (2019) believe that policy makers may be guided by HIV/AIDS information covered in the media such as newspapers to formulate health policies.

Newspapers, distinguished by their enduring format, expansive content, portability, and ability to reach diverse and dispersed audiences, hold a significant role in disseminating information, surpassing other media like radio and television (Ogessa and Sife, 2017). It has been reported further that; newspapers can play a central role in raising awareness, informing, educating and influencing behavioral change in people and communities (Chand, 2017). A comparison to other popular media such as radio and television reveal that, print newspapers have additional advantages of being flexible in reading because they always allow readers to revise them and study the material at their own pace and convenient time (Dolsak and Houston, 2014). They can also provide sustained and prominent coverage to a particular subject matter (Lompo and Bago, 2018). Cullen (2006) reported that newspapers are influential because news stories that appear in print or online are frequently used by radio and television news editors to provide background, and often actual content, for their daily broadcast news services which is a base for inter-media agenda setting.

Print newspapers are important vehicles for disseminating health-related issues such as HIV/AIDS information for enabling individuals, groups, and communities to develop the requisite knowledge, awareness, attitudes, and behaviors for a positive healthy living (Dralega and Napakol, 2022). The studies conducted in the United States, the United Kingdom, India and elsewhere in the world have identified television, radio and newspapers as their primary sources of information about HIV/AIDS (UNAIDS, 2004). However, there has been an observation that newspapers often pay attention to non-educational and non-development issues such as sports, entertainment, politics, and advertisements, while potentially neglecting coverage of critical developmental and social issues related to HIV/AIDS (Nkya, 2017).

Recent studies in Tanzania support this notion, revealing that newsrooms tend to emphasize issues that attract readers or audiences, typically non-educational or non-developmental topical issues driven by market considerations. Conversely, topics related to education and development, such as HIV/AIDS, climate change, and agriculture are allocated comparatively less space in news coverage which consequently lead to poor dissemination of such important issues (Elia, 2019b; Kanyika and Elia, 2021; Ogessa and Sife, 2017; Siyao and Sife, 2018).

Inadequate dissemination of HIV/AIDS information to the public, coupled with inappropriate language usage, can have detrimental effects on understanding the mode through which HIV/AIDS is transmitted, prevention methods, and medication usage for awareness creation. Notably, Tanzania lacks studies examining the language tone and information sources utilized by journalists when reporting on HIV/AIDS in newspapers. This study aims to delve into the language tone used and preferred sources used by journalists when covering HIV/AIDS news in Tanzania. The study focuses on two prominent newspapers, *Daily News* and *Mwananchi*, known for their wide readership in Tanzania (Tanzania Standard Newspapers [TSN], 2017). Two specific objectives guide this investigation: assessing adherence to language and tone guidelines and exploring journalists' preferred sources for accessing HIV/AIDS information in Tanzanian newspapers spanning from 2002 to 2004 and 2017 to 2019. The study sought to answer the following research questions;

RQ1. Do selected Tanzanian newspapers comply with the International Federation of Journalists (2006) Guidelines proposed for language use in reporting on HIV/AIDS information?

RQ2. What are the sources journalists use and prefer to access HIV/AIDS information?

Literature review

Overview of the newspaper's coverage of HIV/AIDS information

Societies and governments worldwide have utilized mass media such as newspapers as a powerful tool to shed light on various issues, facilitating authorities in finding solutions where needed. This applies notably to health concerns, such as those relating to HIV/AIDS. Mass media including newspapers play

a crucial role in unveiling societal problems and challenges, serving as a channel to bring them to the attention of governmental bodies for potential action (Mbajjorgu, 2014). Moreover, it serves as a weapon against ignorance, disseminating vital information across the globe (Romer et al., 2019). The frequency and depth with which an issue is communicated to society directly correlate with heightened awareness and understanding among the population.

More so, mass media such as newspapers hold the power to exert significant influence on society. The contents disseminated through media channels are anticipated to yield either positive or negative consequences. Increased coverage of HIV/AIDS information by the media is correlated with positive societal outcomes, such as decreased prevalence of mortality rates, and new infections. Conversely, reduced media coverage of such information is associated with negative societal impacts, including elevated prevalence, of mortality rates, and new infections (Bekalu and Eggermont, 2014).

The fundamental role of newspapers encompasses informing, educating, and entertaining society. In this context, newspapers undertake a pivotal role in informing and educating the public about the HIV/AIDS pandemic. It achieves this by elucidating the modes of transmission, prevention strategies, treatment options, fostering attitude changes, and enhancing HIV/AIDS awareness among healthcare providers. Mbajjorgu (2014), Agegnehu and Tesema (2020), Chande-Mallya (2014), and Akankunda et al. (2022) suggested that, furnishing individuals with comprehensive knowledge regarding HIV and AIDS empowers them to make informed decisions about their sexual practices and behaviors. The lasting impact of such education may endure throughout individuals' lifespans. Romer et al. (2018) reported that dissemination of HIV and AIDS information through media such as newspapers may provide needed knowledge about the disease, treatment, and self-care management. It may also facilitate coping strategies by mediating uncertainty and anxiety by providing social support (Zamawe et al., 2016).

Language tone used by journalists when covering HIV/AIDS information

The language and tone employed in reporting on impactful issues play a crucial role in ensuring that the message conveyed to the public is both logical and easily understandable. To effectively

communicate with their audiences, media outlets must use acceptable and clearly understandable language and if terminologies are used should be defined (Swanepoel et al., 2007). This is because use of jargons can introduce confusion, potentially resulting in unchanged behaviors and attitudes among the audience. Therefore, it's essential for media professionals to prioritize clarity and simplicity in their communication approaches.

In a study, Moqasa (2012) noted that South African newspaper's journalists consistently followed guidelines such as a focus on positive and constructive news, use of sensitive, non-discriminatory, simple and understandable language. Other authors like (Swanepoel et al., 2007) commented that reporting should be accurate, i.e., fair, balanced, correct, true, in context, focused and comprehensive when covering news related to HIV/AIDS information and it should also be predominantly featured with neutral and positive language, along with the use of simple terminologies for ease understanding of this precarious disease. This suggests that newspaper's journalists who cover pandemic-related stories should possess substantial subject matter expertise. Consequently, their efforts can facilitate the effective transmission of intended messages to society, leading to positive changes in behaviors and attitudes. Mbajiorgu (2014) reported that the language and tone adopted by South African newspapers under review were noted for their positivity and encouragement. This underscores the proficiency of journalists covering health topics, notably HIV/AIDS, in conveying such information effectively. Moreover, the study uncovered the use of complex terminologies, contributing to occasional misunderstandings of the contents.

Sources used in accessing and covering HIV/AIDS information

Sources of information are important elements in shaping coverage patterns in communication media such as newspapers (Freeman, 2016). Sources of information can be anything which journalists use to put news stories together, including people, letters, books, files, films, radio, internet and television among others. Such sources provide information that helps journalists to report or explain an issue to their audiences (Dralega and Napakol, 2022). Media practitioners such as newspapers' journalists need current, relevant, authoritative and factual information to construct their news. In order to get relevant and reliable

HIV/AIDS information newspaper journalists are expected to identify, choose and use the most reliable and convenient sources of information (Ansari and Zuberi, 2012). Prominent global sources for HIV/AIDS information include the World Health Organization Global Programme on AIDS (WHO-GPA), Joint United Nations Programme on HIV/AIDS (UNAIDS), Elton John AIDS Foundation, and the Centers for Disease Control and Prevention (CDC). Additionally, sources at the national level in Tanzania may include Tanzania Commission for AIDS (TACAIDS), National HIV/AIDS Control Programme (NACP), Elizabeth Glaser Pediatrics Foundation (EGPF), National Bureau of Statistics (NBS), and National Institute for Medical Research (NIMR) which is commonly referenced for local news and data.

The study conducted in Malawi by Gombachika et al., (2013) indicates that informal networks of people living with HIV are the main sources of information about HIV/AIDS. Other sources of information include friends/relatives and health care workers. In that study, it was indicated that the hospital are reliable source of knowledge and expertise in relation to sexual and reproductive health and HIV/AIDS. In that study, it was also indicated that mass media such as radio is one of the main sources of information on sexual and reproductive health in Malawi. The study emphasizes that, the dominance of radio as the main source of information related to health issues is due to the fact that radio seem to be affordable by most households due to their low running costs as compared to other sources.

Maina (2007) reported that print media, radio, and classmates for example are important sources of HIV/AIDS information preferred by adolescents in Kenya. Likewise, the study conducted by Asante and Oti-Boadi (2013) indicates that 43.5% of undergraduate students in Ghana used newspapers to access HIV/AIDS information. Aziz (2014) and Elia (2019b) on the other hand noted that the majority of Tanzanian journalists tend to lean heavily on international sources of information when covering developmental and educational topics, particularly HIV/AIDS. This reliance can be attributed partly due to the scarcity of investigative journalists within the Tanzanian media landscape. The Media Council of Tanzania (MCT, 2017) identified a deficiency in journalists who are well equipped with skills and knowledge to conduct investigative journalism as a contributing factor to this reliance on external

sources of HIV/AIDS information. Additionally, Isibor and Ajuwon (2004), Elia (2019c), and Rioba (2012) noted a deficiency in subjective expertise among journalists when reporting issues related to scientific topics, particularly those related to HIV/AIDS. This lack of expertise often makes journalists to rely heavily on international sources of information which consequently make journalists to frequently resort to copying and pasting stories about the pandemic without adapting them to local contexts (Mbajjorgu, 2014).

Methodology

The study used content analysis and discourse analysis methods. The methods were applied to examine the quality of the language and tone set and the sources used in accessing information in reporting HIV/AIDS-oriented issues in two leading broadsheets, namely the *Daily News* and *Mwananchi*. With the help of two research assistants qualified from library and information studies, data were gathered (from May to August 2020) from the articles published in the two selected newspapers for six years from 2002–2004 and 2017–2019. A total of 696 articles were reviewed, whereby, 483 were news articles, 27 were editorial articles, 17 were letters to the editors, 44 were analysis articles, and 125 were reports. These types of articles were chosen because newspapers tend to provide extensive and in-depth coverage of developmental issues like HIV/AIDS in these categories (Kanyika, 2021). The selected timeframe coincides with significant periods of HIV/AIDS awareness campaigns in Tanzania. The first three years (2002–2004) were chosen because this was when the Tanzania National AIDS (TNAIDS) Policy began its operation in 2001, with the expectation of increased coverage of information related to the pandemic, as the policy recognized mass media, including newspapers, as key stakeholders in raising public awareness and combating the disease (Kanyika and Elia, 2021; URT, 2001). The latter three years (2017–2019) were selected because numerous HIV/AIDS awareness campaigns in Tanzania were conducted during this period by NGOs, the World Bank, and the government in partnership with the mass media (Kanyika, 2021). Additionally, the year 2017 was selected because it was the time when Tanzania HIV Impact Survey (THIS) was conducted to measure the status of Tanzania's national HIV response (TACAIDS, 2017).

Non-probability sampling strategy, specifically purposive sampling, was used to select two newspapers for content analysis. Selection of the newspapers was based on wide circulation, nationwide coverage and consistency in publishing its editions and readership (TSN, 2017). Two selected newspapers published on daily basis were purposively selected and grouped into two categories. The first category entailed the newspapers owned by the government and the second entailed those owned by private sector. The second strata include classifying newspapers based on language. Two daily newspapers one in English language and the other in Kiswahili language were purposively selected based on key attributes such as leading in readership, reach and wide circulation, consistency in publishing their editions, and existence for at least 10 years (Elia, 2019a; MCT, 2019; Ogessa and Sife, 2017, Siyao and Sife, 2018). Discourse analysis was used to unveil the quality of the language used. Thorne (2000:5) theorizes that “discourse analysis capitalizes on inquiry into the language that is used and the way it is used to uncover the societal influences that underlie our behaviors and thoughts”. Content analysis was used to designate sources at which journalists access HIV/AIDS information. Neuendorf (2002) defines content analysis as a method for collecting and analyzing the content of texts. This method was used to analyze data obtained quantitatively. To attain validity and consistent relationships among the variables, the study ensure that measurements sufficiently captured the range of meanings pertaining to the HIV/AIDS information used within the different concepts in this study (Babbie et al., 2010). As the instruments used for measurement in this research accurately measured all the research variables and concepts, there was content validity and logical relationship in this study. Regarding measuring reliability, Holst's (1969) coefficient was used by dividing the sum of occurrences for each variable that coders had agreed upon into the total number of the responses for each coder for the same variable (Holsti, 1969). Thus, the study achieved an adequate reliability falling between 0.75 and 0.80 (Neuendorf, 2002).

Newspaper articles were collected and manually scanned using a code book adapted from Di Gregorio et al. (2012) to outline key sources at which journalists access HIV/AIDS information (Figure 1). Guidelines for language use of International Federation of Journalists (IFJ) 2006 have been adopted to unveil the quality of language

Article identification							Language tone		Terminology used		Source of information	
Coders Name	Newspapers Name	Date	Day	Month	Year	Articles on HIV/AIDS (key words)	Positive	Negative	Complex	Simple	International	National

Figure 1. Adapted code book; source: Di Gregorio et al. (2012).

Table 1. Examples of terms to use and avoid when reporting HIV/AIDS.

Use	Do not use
HIV infection, HIV-positive, Person with HIV	AIDS, if the intention is to refer to HIV
HIV or AIDS	AIDS virus, HIV virus
Person with HIV or person living with HIV (or AIDS), people living with HIV/AIDS	AIDS victim or AIDS sufferer
Sex worker	Prostitute
Breast milk, vaginal fluids, semen, pre-ejaculate	Body fluid
AIDS	Full-blown AIDS
Affected communities, high-risk behavior (unsafe sex, sharing needles)	High-risk group
Person living with HIV or AIDS, HIV positive person	AIDS patient

Source: International Federation of Journalists (IFJ) media guide 2006.

used in this study (Table 1). The quality of the data was guaranteed by sufficient training of the research assistants involved in how to use a code book and how to use IFJ to unveil the quality of the language used. Microsoft Excel 2010 was used to analyze quantitative data whereas NVivo was used to analyze qualitative data which offers sentiment analysis features, including tone analysis. NVivo was also used because it allows users to tag text data based on sentiment that is whether the tone is positive, negative or neutral.

The IFJ provides this guideline to help journalists who are reporting HIV/AIDS information to know which language to use and which not to use to avoid using derogatory and discouraging language. In this

study therefore, the IFJ guideline acts as the focal point to help researchers identify whether the language used in a particular newspaper was appropriate or not.

Results and discussion

Language and tone set by journalists when covering HIV/AIDS information

The study sought to find out if the language and tone set used by the journalists in covering HIV/AIDS-oriented issues published in the two newspapers reviewed from 2002–2004 and 2017–2019 comply with the language IFJ (2006) guidelines. It should however be noted that, despite the fact that formal IFJ Media Guide may not have been existed before 2006, it is assumed that it originates from principles, standards, and recommendations for ethical journalism that might have been taught in journalism schools or might have been applied by journalists before the year in question for fulfilling the similar roles.

Choice of the word/language

The language used in reporting any issue significantly influences the audience's reception. Employing suitable language and tone is crucial as it can have positive effects on recipients, such as facilitating knowledge transfer and understanding. Consequently, it can contribute to shifting behaviors and attitudes. Conversely, inappropriate language choices may hinder effective communication. It is advised that journalists to prioritize precision over complexity and to avoid using overly technical terminologies, particularly in the realm of epidemiology, when addressing their audiences. Table 1 serves as a reference point for

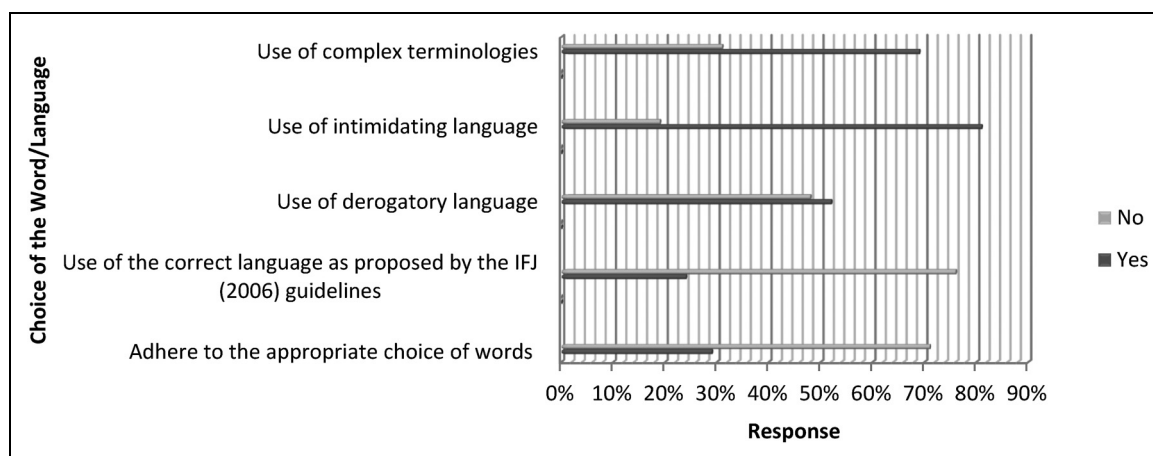


Figure 2. Choice of the words/language; source: field data (2020).

assessing the utilization of appropriate language and terminologies in reporting.

Findings of the study in Figure 2 show that journalists in most cases fail to comply with the International Federation of Journalists (IFJ) in 2006 in choosing the correct words/language when reporting HIV/AIDS-related information. On the other hand, results of the study show that journalists used complex, intimidating and derogatory languages.

The analysis of the selected newspapers in this study revealed that, in most cases (71%), journalists fail to adhere to the appropriate choice of words when reporting information related to HIV/AIDS, as proposed by the International Federation of Journalists (IFJ) in 2006. For example, articles published in *Mwananchi* on March 12th, 2004 titled “Hospitali yawapatia dawa waathirika wa UKIMWI” (translated as “Hospitals provide drugs to AIDS victims”), October 26th, 2004, “Unyanyapaa wachangia waathirika wa UKIMWI kufa mapema” (translated as “Stigma contributes to AIDS victims dying early”), September 25th, 2004, “Ni aibu daktari kumnyanyapaa mwathirika wa UKIMWI” (translated as “It is a shame for a doctor to stigmatize an AIDS victim”), July 28th, 2002, “Mila hizi hatari kwako, aonya mwathirika wa UKIMWI” (translated as “These traditions are dangerous for you, warns AIDS victim”), October 19th, 2002, “Coca cola yatakiwa kusaidia familia za wenye waathirika wa UKIMWI” (translated as “Coca cola should help the families of AIDS victims”), March 31st, 2017, “Waathirika wa UKIMWI wanaweza kuepuka maambukizi ya kinywa” (translated as “AIDS victims can avoid oral infections”), and from the *Daily News* dated May 31st, 2019, “Strategic plan for HIV victims being

planned.” In all these articles, journalists failed to comply with IFJ guidelines in their choice of words. IFJ (2006) proposes using terms such as “Person with HIV” or “People living with HIV/AIDS” instead of “AIDS victims” which seems to be highly used by journalist when reporting HIV/AIDS-related information. The analysis also reveals that journalists tend to use the term “AIDS virus” instead of “HIV” or “AIDS,” as proposed by the IFJ guidelines. This is evident in the *Mwananchi* article dated September 20th, 2003, titled “Wenye virusi vya UKIMWI wataka dawa bure” (translated as “Those with the AIDS virus want free medicine”).

The analysis also revealed that the majority (76%) of the reviewed articles, journalists fail to appropriately use the correct language as proposed by the IFJ (2006) guidelines. It was observed that the term “AIDS patient” is predominantly used in reporting information related to HIV/AIDS, instead of the recommended terms such as “person living with HIV or AIDS” or “HIV-positive person.” This issue is evident in several articles published in the *Daily News* on May 29th, 2003; “Give hope to AIDS patients, urges workshop”, on March 04th, 2003; “AIDS patients need comfort, says Karume”, on January 28th, 2003; “TACAIDS urges nutrients diet for AIDS patients”, May 18th, 2004; “Bush funds for AIDS patients in care of international hands”, on April 6th, 2004; “Government assists 45 AIDS patients”, November 20th, 2018; “HIV patients sue government over septrin stock out”. Additionally, an article from *Mwananchi* published on May 30, 2004, titled “Ahueni kwa wagonjwa wa UKIMWI” (translated as “Recovery for AIDS patients”) further demonstrates this issue. Furthermore, the study’s analysis

also highlights that the term “High risk group” is used in reporting HIV/AIDS-related information, rather than the recommended terms “Affected communities or high-risk behavior (unsafe sex, sharing needles)” as advised by the IFJ (2006) guidelines. This can be seen in the *Daily News* article from October 31, 2019, titled “State introduces shielding pills for HIV high risk group”. The failure of Tanzanian journalists to adhere to the IFJ (2006) guidelines for selecting appropriate language when reporting on HIV/AIDS may be linked to a lack of a reading culture among journalists. This challenge is common across many African countries, including Tanzania (Isaac, 2020). This implies that journalists should read the guidelines provided in IFJ for improving reportage on HIV/AIDS-related information in the newspapers.

Moreover, the analysis revealed that a significant number (52%) of articles employed derogatory and inflammatory language. For instance, an article published in *Mwananchi* on January 18th, 2002, titled “Viongozi kupima UKIMWI ni upuuzi” (translated as “It’s stupidity for leaders to undergo HIV/AIDS testing”), was identified for its particularly derogatory language. According to IFJ (2006), employing such language to convey messages to audiences is deemed inappropriate as it can foster distress and perpetuates negative stereotypes. The presence of derogatory and inciting language in these articles may stem from a lack of a clear language guidelines (Swanepoel et al., 2007) and inadequate analytical skills among journalists. Given that HIV/AIDS is a scientific subject, it necessitates thorough and critical analysis before dissemination to the public. Journalists equipped with such analytical skill are better positioned to sift through health-related information and discern what should be reported and how. Conversely, a lack of analytical skills can lead journalists to convey information in a derogatory manner. Elia (2019c) and Siyao and Sife (2018) noted a deficiency in analytical skills among journalists, attributing to one of the factors affecting coverage and communication of scientific topical issues in Tanzania. These findings resonate with those of Moqasa (2012), who observed similar patterns in South African newspapers, where HIV/AIDS information was often conveyed in derogatory and offensive tones due to inadequate analytical skills among journalists.

In this study it was also noted that the language employed to a lot of articles (81%) was intimidating. For instance, articles featured in the *Daily News* on

January 13th, 2019, titled “AIDS, a menace that won’t go away”, and in *Mwananchi* on January 7th, 2003, titled “UKIMWI ni hatari, hauna dawa wala kinga, sisi tunajali. Je wewe?” (translated as “AIDS is dangerous, there is no medicine or protection, we care. What about you?”). The language employed here undermines the efforts of the government and other stakeholders in combating and eradicating the disease. Such language suggests futility in these efforts and perpetuates the notion that the disease will persist indefinitely. This contradicts the study by Martinez-Cajas et al. (2008) who reported that journalists have the responsibilities of disseminating pertinent information with regards to HIV/AIDS and must do so in the languages that are understood by the general public. According to IFJ (2006), the use of such language is not suitable for conveying messages to the audience; it is discouraging and goes against the principles of responsible media reporting. Additionally, the analysis also reveals the use of language that can be unclear to readers. For instance, *Mwananchi* published headlines such as “UKIMWI Makete: Barabara isiyo na ramani” (“AIDS Makete: A road without a map”) on December 28, 2003; “Kifua kikuu kimeingia ubia na UKIMWI” (“Tuberculosis has entered a partnership with AIDS”) on August 24, 2003; and “RC awapa vijana salamu ya UKIMWI” (“Regional Commissioner gives AIDS greetings to young people”) on April 27, 2004. These phrases may confuse readers, making it difficult for them to grasp the journalists’ intended messages. This is problematic because newspaper readers are typically drawn to headlines or stories that are eye-catching and easy to understand (Kanyika and Elia, 2021). This uninteresting pattern of communicating HIV/AIDS-related information may stem from inadequate scientific knowledge among specialized journalists. Proper understanding and knowledge of a subject matter are crucial for journalists to select appropriate terms and convey accurate information. To effectively report on scientific issues like HIV/AIDS, journalists must possess specialized knowledge and comprehension of various related topics. Studies by Elia (2019a, 2019b), MCT (2019), and Rioba (2012) have reported that insufficient knowledge or the absence of specialized journalists in scientific fields can lead to inappropriate language usage and fail to engage the audience effectively.

Furthermore, the analysis of newspapers revealed a tendency of most articles (69%) to employ intricate terminologies. Take, for instance, an article from the

Daily News dated September 6th, 2017, titled “HIV sliding but war rages.” Such language may prove daunting for the average reader, particularly those outside the medical field, making comprehension so challenging. Instead, simpler and more universally understood terms could be utilized synonymously, promoting accessibility. According to the IFJ (2006), the adoption of such complicated language by the media to convey messages to their audience is discouraged. Several factors could contribute to this phenomenon. One such factor could be the insufficient proficiency in investigative journalism. Investigative journalists possess the ability to gather information from various sources, interpret it, and present it in a reader-friendly manner. Despite efforts by organizations in Tanzania like TACAIDS to provide training to journalists on reporting HIV/AIDS-related information, many journalists still lack the capacity to conduct investigative journalism effectively. This deficiency could be one of the driving forces behind the prevalence of complex terminologies in newspaper coverage of HIV/AIDS information (MCT, 2017). This finding echoes that of Elia (2019b), who identified a lack of investigative journalism skills as a primary reason for the use of complex terms in reporting topical issues such as climate change in Tanzanian newspapers.

One contributing factor to the complexity in conveying HIV/AIDS information may stem from the English language proficiency level of journalists. Elia (2019c) noted that many scientific topics, including those concerning HIV/AIDS and climate change, are predominantly presented in English. Given that English is not the primary language in Tanzania, it presents a significant hurdle for journalists in effectively communicating scientific matters like

HIV/AIDS. The majority of Tanzanian journalists struggle with English proficiency, making it challenging for them to comprehend scientific terminologies and translate them into accessible language for the general public. Elia (2019c) supports these findings, highlighting the insufficient English language skills among Tanzanian journalists as a barrier to effectively cover and simplify scientific concepts, including those related to climate change.

Message tone

The study analyzed the language tone used in reporting HIV/AIDS information in the newspapers under study. Figure 3 below summarizes the findings.

The majority (84%) of articles reviewed from various Tanzanian newspapers convey an optimistic and resolute tone. For instance, an article in the *Daily News* dated February 23, 2019, titled “Come 2030, AIDS, maternal child dearth may be buried,” exudes positivity and hopefulness. This tone is uplifting as it suggests the potential for a future where HIV/AIDS may no longer be prevalent in our communities. Similarly, an article in *Mwananchi* from September 14, 2018, titled “Inawezekana kuishi kwa furaha na mwenzi mwenye UKIMWI” (translated as “It’s possible to happily live with your AIDS positive partner”) adopts a positive tone, emphasizing the possibility of joyfully co-existing with a partner who is HIV-positive. This messaging not only fosters optimism but also serves to combat discrimination by exposing misconceptions that living with an HIV-positive partner automatically leads to transmission. Therefore, it advocates against stigmatization and discrimination toward individuals living with HIV/AIDS. Furthermore, the titles “Living with

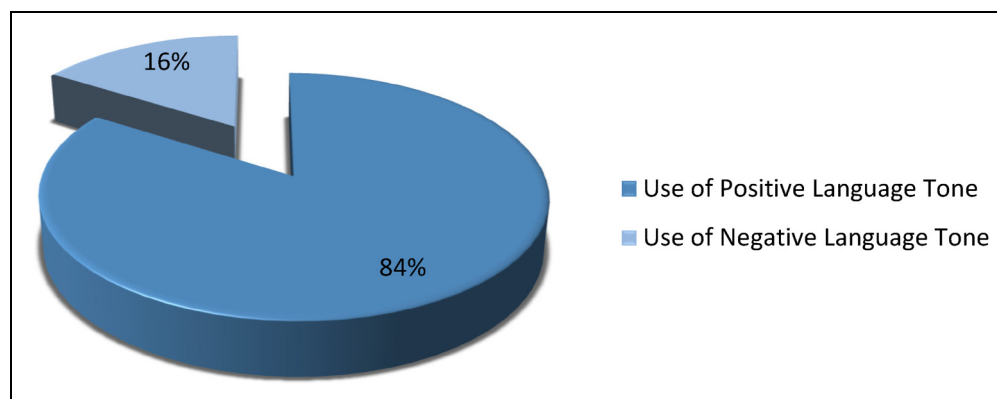


Figure 3. Language tone used in reporting HIV/AIDS information in the newspapers. Source: Field Data (2020).

HIV/AIDS; My health, my right” from the *Daily News* dated April 5th, 2018; “Rapes fuel AIDS spread” from the *Daily News* dated July 16th, 2004; “Members of Parliament need no secrets in the fight against HIV/AIDS” from the *Daily News* dated March 26th, 2002; and “Kwanini mbu hasambazi VVU” (translated as ‘Why the mosquito does not spread HIV/AIDS’) from *Mwananchi* dated December 20th, 2004, all effectively employ language that captivates readers’ attention and encourages them to delve into the crucial knowledge surrounding the HIV/AIDS pandemic. According to IFJ (2006), the message tones used in these articles are very positive and encouraging journalists to use such kind of language tones. The observation corroborates with that of Mbajorgu (2014) and Machungo (2012) who both found that messages carried by their reviewed newspapers had positive and encouraging tones.

There are several factors that could shed light on the findings. Firstly, financial constraints within the media industry may be attributed to the decline in advertisements. Media houses, especially in developing countries, have encountered challenges stemming from reduced income, compelling them to seek alternative means to sustain their services (MCT, 2017; 2019). The results are also in congruency with Mugwisi (2015) who reported that media houses are seen as profit-driven entities. One plausible adaptation involves journalists presenting information in a manner that captures public attention and entices readers, thereby boosting newspaper sales. Such reporting strategies are aimed at increasing revenue streams. Additionally, the notable increase in coverage of HIV/AIDS information, characterized by optimistic and courageous tones, may be influenced by challenges related to the funding of HIV/AIDS programs. The availability of funding is pivotal in driving media coverage of HIV/AIDS, as it supports expenses associated with media coverage. Consequently, a decrease in donor funding can impact the extent of coverage (U.S. President’s Emergency Plan for AIDS Relief [PEPFAR], 2019). Funding plays a vital role in monitoring progress, identifying challenges, and exploring prospects concerning the HIV/AIDS pandemic (MCT, 2019; Rioba, 2012). Another factor contributing to the heightened coverage of HIV/AIDS information with an optimistic and courageous tone could be enhancements in the editorial policies of media organizations. Editorial policies significantly influence the scope and tone of information coverage, including that

pertaining to HIV/AIDS, by providing journalists with guidelines on what, how, when, and where to report. This assertion is supported by research findings from Rioba (2012), Elia (2019a), and Elia (2019b), which underscore the impact of editorial policies on information coverage, spanning topics such as climate change and HIV/AIDS.

Furthermore, it was noted that few (16%) articles often lack convincing sentence structures. For instance, an article from the *Daily News* on July 10, 2017, titled “A monster no one wants to meet,”. The sentence structure fails to directly convey its meaning to the readers which is crucial for understanding the subject matter especially when considering their inclination toward titles. This inadequacy is particularly evident in its failure to explicitly denote the “talking monster” as HIV/AIDS. Based on the IFJ (2006) recommendations, such structural flaws in conveying messages to audiences are deemed improper and a discouraging media practice. This could be attributed to a deficient reading culture, which has been persistently problematic, especially in developing nations like Tanzania, as noted by Isaac (2020), and Kabagambe and Kanyika (2023). The lack of a robust reading culture adversely affects journalists’ access to information sources and their ability to comprehend and articulate clear narratives on scientific topics, such as those related to HIV/AIDS. Consequently, the prevalence of a poor reading culture may lead to inappropriate structuring of sentences pertaining to HIV/AIDS information in newspapers. These findings align with the study by Elia (2019c) which highlighted the correlation between inadequate reading cultures among Tanzanian journalists and issues such as editorial rejections, insufficient understanding, and limited coverage of scientific information.

Sources used in accessing and covering HIV/AIDS information

The study also examined the sources used in accessing HIV/AIDS-oriented issues in the newspapers. The study categorized sources into two groups namely local HIV/AIDS sources and international HIV/AIDS sources. The results in Figure 4 show that, *Daily News* published 499 articles, in which the majority (335; 67%); were from international sources, while only 164 (33%) articles were local. *Mwananchi* published 197 (39.5%) articles, with 177 (90%) international sources whereas only 20 (10%) articles were from local sources.

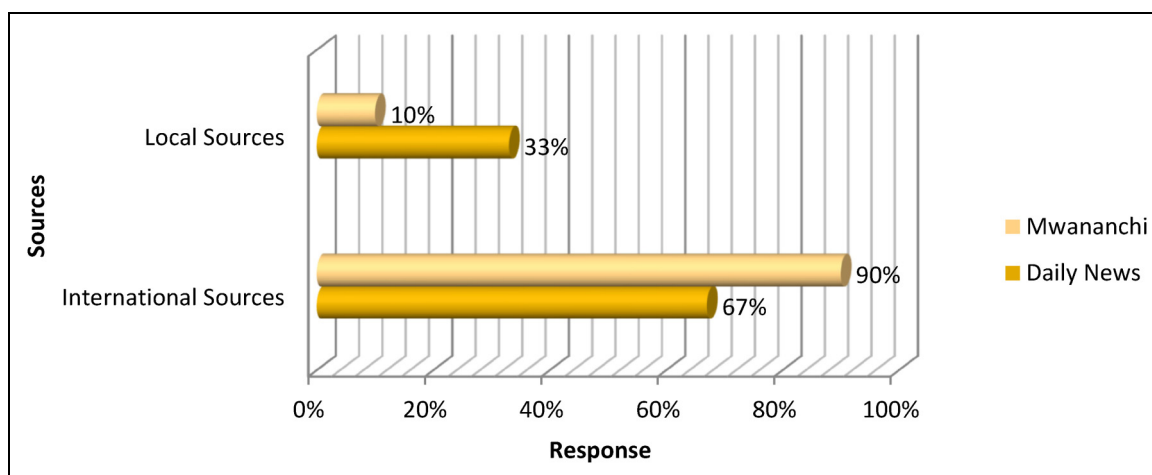


Figure 4. Sources used by newspaper journalists to access HIV/AIDS information. Source: Field Data (2020).

The study findings indicate preference among newspapers journalists (90% for *Mwananchi* and 67% for *Daily News*) in utilizing international sources as their primary outlets for accessing information on HIV/AIDS. Studies by Aziz (2014), Elia (2019a), Kanyika and Elia (2021), Mbajjorgu (2014), and Machungo (2012) observed this tendency among journalists in Tanzania and South Africa. Several factors contribute to this reliance on international sources. Such factors include the extensive coverage, accessibility, availability, credibility, reliability, and consistency of electronic international news feeds that frequently cover HIV/AIDS stories. Essentially, journalists prefer to rely more on international news compared to local news due to the easy of accessibility of international news to the public, including journalists. These findings corroborate that of Mbajjorgu (2014), Elia (2019a), and Aziz (2014), who noted the increased usage of internet sources by journalists in South Africa and Tanzania as their primary means of obtaining, processing, and disseminating information. This reliance on international electronic sources facilitates journalists' access to information products and services. Additionally, the electronic format enables users to access such information in a timely and cost-effective manner through websites and social media platforms.

Moreover, the growing reliance on international sources rather than local ones may stem from journalists' lack of a science background. Within the realm of scientific information, researchers and research institutions have emerged as key conduits, particularly in areas like HIV/AIDS research. To effectively report

on HIV/AIDS, journalists must establish strong connections with these entities. By doing so, they gain access to multidimensional insights into the disease, spanning scientific, medical, economic, and social perspectives. This enables journalists to clarify intricate scientific concepts and decipher technical jargon. These findings align with Elia's observations (2019a; 2019b; 2019c), which suggest that journalists with a scientific background, tend to produce more accurate reports in their subject matters of coverage. Unfortunately, many media outlets in Tanzania lack journalists with such specialized science knowledge, particularly in the context of HIV/AIDS (Kanyika, 2021). Consequently, they often resort to relying heavily on international news sources, leading to a proliferation of copied and pasted HIV/AIDS information from global sources in local newspapers.

However, despite the fact that the coverage of local HIV/AIDS news was observed to be lower compared to international HIV/AIDS news in general, the study's findings indicate that *Daily News* provided better coverage (33%) of local HIV/AIDS news compared to *Mwananchi* (10%). Several reasons may account for this trend. Firstly, *Daily News*, being government-owned, may prioritize the coverage of local developmental and educational issues such as those related to HIV/AIDS. This prioritization aligns with the editorial agenda of a government-owned newspaper. These findings are consistent with that of Rioba (2012), MCT (2017), and Elia (2019a), who emphasized the significance of editorial aspects in influencing media coverage of developmental topics in Tanzanian newspapers. Another factor contributing to this coverage discrepancy could be the resources

available to journalists. As a government-owned newspaper, Daily Newspaper likely has access to greater resources, enabling its journalists to gather, process, and report on local news more effectively compared to *Mwananchi*, which is privately owned. This resource disparity may influence the depth and breadth of coverage each newspaper provides on issues such as HIV/AIDS within the local context.

Policy implications

The research suggests that the overall (76%) language employed was inadequate. It asserts that despite the usage of positive tone, yet the language employed lack constructive, informative qualities and not suitably framed for the easy comprehension of their target audience. The findings advocate for journalists to consistently seek improved language tone for conveying HIV/AIDS information to the public as recommended by IFJ (2006) guidelines. Furthermore, it proposes that media outlets should provide training to the journalists on the good techniques of framing HIV/AIDS information covered in Tanzanian newspapers for awareness creation and combating the pandemic.

Conclusion and recommendation

This study is the first to be conducted in Tanzania highlighting how journalists use the language and set the tone in reporting information related to HIV/AIDS. Therefore, the study aims to contribute to the existing body of knowledge on the journalists' importance of using positive language tones when covering and reporting HIV/AIDS information in the newspapers for awareness creation in Tanzania. The study's findings indicate that the language employed in the examined articles was derogatory and discouraging, with the majority of terminologies being overly complex. Although the tone of the messages conveyed optimism and positivity, the structure of many sentences was deemed inappropriate. Moreover, the study highlights a heavy reliance on international sources for HIV/AIDS information, with the internet playing a significant role in facilitating this reliance.

Overall, the study reveals a failure to adhere to language guidelines in reporting on HIV/AIDS. Consequently, it is recommended that journalists and editors adhere to these guidelines to ensure the appropriate use of language, thereby enhancing readers' comprehension and facilitating behavioral change to

decrease prevalence rates. Additionally, media outlets are urged to provide training for journalists on how to report scientific news, including topics related to HIV/AIDS.

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References

- Agegnehu C and Tesema G (2020) Effect of mass media on comprehensive knowledge of HIV/AIDS and its spatial distribution among reproductive-age women in Ethiopia: A spatial and multilevel analysis. *BMC Public Health* 20: 1420.
- Akankunda S, Najjuma J, Tayebwa S, et al. (2022) The role of mass media campaigns in improving adherence to antiretroviral therapy among adolescents living with HIV in southwestern Uganda. *HIV/AIDS - Research and Palliative Care* 14: 397–407.
- Ansari M and Zuberi N (2012) Information needs of media practitioners in Karachi, Pakistan. *Chinese Librarianship* 33: 1–11. <http://eprints.rclis.org/18424/1/cl33AZ.pdf>.
- Asante O and Oti-Boadi M (2013) HIV/AIDS knowledge among undergraduate university students: Implications for health education programs in Ghana. *African Health Sciences* 13(2): 270–277.
- Aziz (2014) The impact of new media on journalism practice in Tanzania. Masters Dissertation, Dissertation, Dar es Salaam: University of Dar es Salaam.
- Babbie E, Mouton J, Voster P, et al. (2010) *The Practice of Social Research*, 10th ed. Southern Africa, Cape Town, Republic of South Africa: Oxford University Press.
- Bekalu M and Eggermont S (2014) Media use and HIV/AIDS knowledge: A knowledge gap perspective. *Health Promotion International* 29(4): 739–750.
- Chand S (2017) Newspaper coverage of climate change in Fiji: A content analysis. *Pacific Journalism Review* 23(1): 169–185. <https://ojs.aut.ac.nz/pacific-journalism-review/article/view/310>.

- Chande-Mallya R (2014) Access and utilization of HIV/AIDS information in rural area in Tanzania: a case of Kisarawe district.
- Cullen T (2006) HIV/AIDS: 25 years of press coverage. *Australian Journalism Review* 28(2): 187–198.
- Di Gregorio M, Price S, Saunders C, et al. (2012) *Code Book for the Analysis of Media Frames in Articles on REDDp*. Bogor, Indonesia: Center for International Forestry Research.
- Dolsak N and Houston K (2014) Newspaper coverage and climate change legislative activity across us states. *Global Policy* 5(3): 286–297.
- Dralega C and Napakol A (2022) *Health Crises and Media Discourses in Sub-Saharan Africa*. NLA University College, Switzerland: Springer.
- Elia E (2019a) Media coverage of climate change information by the Tanzania Guardian and Daily News in 2015. *Information Development* 35(4): 535–550.
- Elia E (2019b) Media coverage of climate change information in Tanzania. *Global Knowledge, Memory and Communication Journal* 68(4): 258–274.
- Elia E (2019c) Disentangling the Jargon: Journalists' access and utilisation of climate change information in Tanzania. *African Journalism Studies Journal* 40(2): 16–33.
- Freeman B (2016) Protecting the Gulf: Climate change coverage in GCC print media. *Cogent Arts and Humanities* 3(1): 1212690.
- Gombachika B, Chirwa E, Malaga A, et al. (2013) Sources of Information on HIV and Sexual and Reproductive Health for Couples Living with HIV in Rural Southern Malawi. <http://dx.doi.org/10.1155/2013/235902>.
- Head K, Noar S, Iannarino N, et al. (2013) Efficacy of text messagingbased interventions for health promotion: A meta-analysis. *Soc Sci Med*. 97: 41–48.
- Holsti O (1969) *Content Analysis for the Social Sciences and Humanities*. Reading, MA: Addison-Wesley.
- International Federation of Journalists (2006) HIV/AIDS Media Guide. IFJ media guide and research report on the media's reporting of HIV/AIDS. https://documentation.lastradainternational.org/lisidocs/hiv_aids_media_0607.pdf.
- Isaac O (2020) An epoch of nadiral readership: Encouraging the reading culture in Africa—the Ghana case. Available at SSRN 3608425.
- Isibor M and Ajuwon A (2004) Journalists' knowledge of AIDS and attitude to persons living with HIV in Ibadan, Nigeria. *African Journal of Reproductive Health* 8(2): 101–110.
- Kabagambe J and Kanyika M (2023) The role of public library in promoting the Reading culture in Rwanda. *Library Philosophy and Practice (e-Journal)*: 7769. <https://digitalcommons.unl.edu/libphilprac/7769>.
- Kanyika M (2021) Coverage on HIV/AIDS Information in Selected Tanzania Newspapers, 2002–2004 and 2017–2019. Masters Dissertation, Dar es Salaam: University of Dar es Salaam.
- Kanyika M and Elia E (2021) The coverage of HIV/AIDS information in Tanzania: A reflection of Mwananchi and Daily News newspapers. *University of Dar es Salaam Library Journal* 16(1): 149–166.
- Kiptinness E and Kiwanuka-Tondo J (2019) The prevalence of HIV/AIDS frames in Kenya newspapers: A summative content analysis of the daily nation. *Cogent Medicine* 6: 1596047.
- Lompo M and Bago J (2018) How does exposure to mass media affect HIV testing and HIV-related knowledge among adolescents? Evidence from Uganda. *Glob J Health Sci*. 10(9): 1.
- Machungo F (2012) Trend and content of media coverage of the HIV/AIDS epidemic by three influential U.S. newspapers, 1983–2008. 209.
- Maina A (2007) Sources of HIV/AIDS information among adolescents in public secondary schools and their implications in Nairobi, Kenya.
- Martinez-Cajas JL, Invernizzi CF, Ntemgwa M, et al. (2008) Benefits of an educational program for journalists on media coverage of HIV/AIDS in developing countries. *Journal of the International AIDS Society* 11(1): 2–2.
- Mbajiorgu C (2014) A study of South African newspapers coverage of HIV and AIDS pandemic and audience attitudes in Limpopo province. PhD Thesis.
- Media Council of Tanzania (2017) State of the media report, 2016. <https://mct.or.tz/wp-content/uploads/2019/05/State-of-the-Media-Report-2016.pdf>.
- Media Council of Tanzania (2019) *State of the Media in Tanzania 2017–2018*. Dar es Salaam: Media Council of Tanzania. <https://mct.or.tz/wp-content/uploads/2019/05/State-of-the-Media-Report-2017-2018.pdf>.
- Moqasa N (2012) An investigation on HIV/AIDS coverage in selected South African Newspapers. Masters Dissertation, Eastern Cape: University of Fort Hare.
- Mugwisi T (2015) Communicating agricultural information for development: The role of the media in Zimbabwe. *LIBRI* 65(4): 281–299.
- Mwani S (2011) Awareness of hiv/aids and sexual behaviour among secondary school students in Njombe district, Tanzania. Masters Dissertation, Morogoro: Sokoine University of Agriculture.
- Neuendorf K (2002) *The Content Analysis Guidebook*. Thousand Oaks, CA: Sage Publications.
- Nkya A (2017) Tanzania's mainstream news media engagement with national development. PhD Thesis, University of Bradford, United Kingdom.
- Ogessa C and Sife A (2017) Newspaper coverage of agricultural information in Tanzania.
- Rioba A (2012) Media accountability in Tanzania's multi-party democracy: does self-regulation work. PhD Thesis. Tampere: University of Tampere.

- Romer D, Sznitman S, DiClemente R, et al. (2019) Mass media as an HIV-prevention strategy: Using culturally sensitive messages to reduce HIV- associated sexual behavior of at-risk African American youth. *American Journal of Public Health* 99(12): 2150–2159.
- Sawe B (2017) Leading causes of death in Tanzania.
- Siyao P and Sife A (2018) Coverage of climate change information in Tanzanian newspapers. *Global Knowledge, Memory and Communication* 67(6–7): 425–437.
- Swanepoel, Fourie & Froneman (2007) HIV/AIDS reporting in three South African newspapers. *Communicare* 26(1), 74–91.
- TACAIDS (2017) Tanzania HIV Impact Survey 2016/2017. https://www.nbs.go.tz/nbs/takwimu/this2016-17/Tanzania_SummarySheet_English.pdf.
- Tanzania Standard Newspapers (2017) Newspapers Readership. <http://www.dailynews.co.tz/online.pdf>.
- Thorne S (2000) Data analysis in qualitative research. *Evidence Based Nursing* 3(3): 68–70.
- United Nations AIDS (2024) Global HIV & AIDS statistics — Fact sheet. Retrieved from: <https://www.unaids.org/en/resources/fact-sheet#:~:text=39.9%20million%20%5B36.1%20million%E2%80%9344.6,AIDS%2Drelated%20illnesses%20in%202023>.
- United Nations Programme on HIV/AIDS (UNAIDS) (2004) The Media and HIV/AIDS: Making a difference. https://data.unaids.org/publications/irc-pub06/jc1000-media_en.pdf.
- United Republic of Tanzania (2001) National Policy on HIV/AIDS.
- U.S. President's Emergency Plan for AIDS Relief (2019) Tanzania Country Operational Plan COP 2019: Strategic-directional-Summary.
- Zamawe C, Banda M and Dube A (2016) The impact of a community-driven mass media campaign on the utilization of maternal health care services in rural Malawi. *BMC Pregnancy and Childbirth* 16(1): 21.

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