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Local interpretations of COVID-19 communication and their influence on risk perception and self-efficacy in rural, township and informal settlement communities: A Case Study in KwaZulu-Natal.

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Ethical Clearance Number: HSSREC/00002318/2021

A thesis submitted in fulfillment of the requirements for the degree of Doctor of Philosophy in the Centre for Communication, Media and Society, School of Applied Human Sciences, College of Humanities, University of KwaZulu-Natal (Howard College), Durban, South Africa.

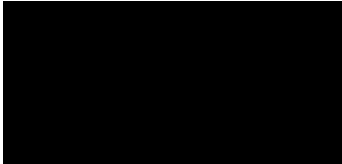
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I, Nompumelelo Promise Gumede (8729208) declare that:

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ACKNOWLEDGEMENT

Firstly, I would like to acknowledge my Supervisor, Professor Eliza Govender, for her immense contribution to the development of this thesis and to my academic development in general. Her support and prayers have been invaluable throughout this process. Thank you Prof.

Secondly, I thank my colleague, Sima Bokolo, with whom I travelled most of this PhD journey, especially during data collection, and Lungelo Ndlovu, who was my research assistant during fieldwork. I thank the AIDS Foundation of South Africa (AFSA) who provided access to the research sites for this study and the National Institute for Humanities and Social Science (NIHSS) in South Africa, which provided financial support for the fieldwork for this study. Major gratitude goes towards the research participants in Cato Crest, Umlazi and Umbumbulu, that I worked with over a prolonged period of time and through virtual platforms, but who stayed the course and contributed so much to my learning.

The entire CCMS family has played a big role in my academic development throughout this PhD process. I remember with fondness the debates, laughter, and learning as we engaged in various virtual colloquia with my fellow PhD students as we travelled this long but rewarding journey. I say to you all, ngiyabonga! My sisters and brothers, Nonkanyiso, bhuti Muzi, Ntokozo, bhuti Dumsani, Mlungisi, Nthabiseng, Buyani and Sindi have been my ongoing cheerleaders throughout my PhD journey, praying for me and supporting me in various ways. This achievement is as much for me as it is for them. Thank you MaThomoyi amahle – I have so much love for all of you!

My dear husband, Dr. Mkhonzeni Gumede – no words can describe my deep gratitude for the support and encouragement that you have provided throughout this journey. Ngithi nje “Qwabe! Phakathwayo!”. Next to you are my children, of course, who had to share their mother with a demanding PhD ‘sister’, but who supported me in various ways, encouraging me to push on even when I felt I couldn’t. Nolwazi, Khwezi, Nkazimulo, ngiyabonga bantabami. May this encourage you to always reach for the stars!

Above all else I give glory to God almighty for giving me the strength and wisdom to start and complete this journey. Malibongwe igama lakhe eliNgcwele!

DEDICATION

I dedicate this thesis to the memory of my late father, Timothy Bhekithemba Maluleka, from whom I learnt the joy of books and reading, and to my loving mom, Sibongile Sylvia Maluleka, for her constant prayers and support throughout my PhD journey. Ngiyabonga MaThomoyi amahle! This one is for you!

I fondly remember my late uncle, Russell Ngwane, who used to lend me his novels when I was a child (and fight with me for constantly misplacing them!), recognising my love for books and supporting me in my quest for knowledge even at that young age. This is a dedication to his memory. Thank you Ngwan'elihle!

ABSTRACT

Communication during a health crisis is important to ensure that the public is informed and is equipped with correctly affirming behaviours and actions that can ensure their safety. While acknowledging COVID-19 as a global pandemic, the reality is that prevention measures must be implemented in local, geographically, and culturally bounded contexts. The traditional approach to communication during public health emergencies, involving one-way broadcast messages, usually from government to communities, has been criticised for stifling public participation and failing to integrate local knowledge and contexts, thus leading to poor adoption of protective behaviours by communities.

This study explores how communities in three different types of localities; township, rural and informal settlement in eThekweni Municipality in South Africa, interpret COVID-19 prevention communication, and how these interpretations influence their perception of risk and self-efficacy to adopt preventive behaviours. Such an understanding can shape the development of a more localised response to COVID-19 prevention, and hopefully, future pandemics.

Theoretically the study is grounded within Collins Airhihenbuwa's PEN-3 Cultural Model for Health Communication, which foregrounds the importance of culturally appropriate and compelling strategies for behaviour change. The PEN-3 Model negates the 'culture-as-barrier' bias but instead locates culture as central in determining individual, family and community health by investigating positive, neutral, and negative impacts of culture on health behaviour.

Data were collected in two rounds: after the South African 2nd wave of COVID-19 in April and after the 3rd wave in November 2021, with communities in the three identified geo-spatial locations. A total of six virtual WhatsApp groups and six face-to-face community dialogues (55 participants) were conducted to explore local interpretations of COVID-19 prevention messages and how these can form pathways for the development of locally relevant COVID-19 communication.

Unsafe working environments, the public transport industry and attitudes towards the government's COVID-19 strategy impacted participants' evaluation of the threat and risk for COVID-19 infection. The cultural identity of communal living and support, embedded in *Ubuntu*, was challenged through prescriptive government-led pandemic communication, leading to widespread flouting of COVID-19

precautions. Community assets, agency and resources were ignored by the top-down communication approach, contributing further to the widespread lack of adherence to prescribed precautions.

The overcrowded and unhygienic informal settlement environment rendered adherence to preventive precautions too hard, demonstrating the structural environment's moderating influence in decision-making and subsequent preventive action. Reverence for local community leadership structures over distant national government demonstrated the moderating influence of power dynamics at the community level, which work to enhance mechanisms for transparency and accountability. Patriarchal societal norms influenced men's responses to pandemic communication, and the role of the family in potentially contributing to positive health outcomes was highlighted.

The results point to a need for risk communication and community engagement at a more granular level. The study argues for a participatory communication process that amplifies community voices and reveals context-specific and culturally-informed perceptions that impact on decision-making around COVID-19. This culture-centred exploration ensures that health communication interventions are developed from a positive perspective, that extends beyond highlighting the negatives, but rather focuses on enhancing the positive through a recognition of the positive and unique aspects of a people's culture. The study recommends the application of a culture-centred theoretical lens to communication during a health crisis, as opposed to the proliferation of individual-focused theories of behaviour change that characterised the COVID-19 communication landscape, for future pandemic preparedness efforts.

KEY WORDS: COVID-19, health communication, culture-centred theorizing, PEN-3 Model, participatory communication, risk communication and community engagement

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LIST OF ACRONYMS AND ABBREVIATIONS

AFSA	AIDS Foundation of South Africa
AIDS	Acquired Immunodeficiency Syndrome
ARV	Anti-Retroviral
CBO	Community-based Organisations
CDC	Centres for Disease Control
CE	Community Engagement
CFSC	Communication for Social Change
FGD	Focus Group Discussion
GCIS	Government Communication and Information System
H1N1	Swine flu
HIV	Human Immunodeficiency Virus
iNGO	International Non-governmental Organisation
KZN	KwaZulu-Natal
LGBT	Lesbian, gay, bisexual and transgender
MAC	Ministerial Advisory Committee
MERS	Middle East Respiratory Syndrome
NGO	Non-governmental Organisation
NCCC	National COVID-19 Command Council
NICD	National Institute for Communicable Diseases
PAR	Participatory Action Research
PLHIV	People Living with HIV
RCCE	Risk Communication and Community Engagement
RTA	Reflexive Thematic Analysis
SANDF	South African National Defense Force
SBCC	Social and Behaviour Change Communication
STI	Sexually Transmitted Infection
SRHR	Sexual and Reproductive Health and Rights
SAPS	South African Police Services
SARS	Severe Acute Respiratory Syndrome
TWG	Technical Working Group
TB	Tuberculosis
TA	Thematic Analysis
UNAIDS	United Nations Joint Programme on AIDS
UNICEF	United Nations
WHO	World Health Organisation

CHAPTER ONE

INTRODUCTION

Introduction

The global outbreak of COVID-19 created unprecedented havoc worldwide, attracting the status of being “the most profoundly communicated and mediated health event ever witnessed in history” (Lewis, Holland and Govender, 2021:1). While initially discovered in China, SARS-COV2, the virus that causes COVID-19, spread rapidly to other countries, leaving no country untouched. Governments soon faced a communication crisis as COVID-19 spread faster than scientists could collect enough knowledge about it. At a global level, COVID-19 prevention and control measures were quickly developed and broadcast to nations worldwide predominantly through the World Health Organisation (WHO), in efforts to protect citizens and halt its spread. As the science of COVID-19 evolved, a new vocabulary developed with terms such as ‘national lockdowns’ and ‘social distancing,’ to name a few, taking centre stage.

The COVID-19 communication landscape became characterised by prevention messages primarily focused on preventing individual risks, based on assumptions that prevention is within an individual’s control (Airhihenbuwa, Iwelunmor, Munodawafa, Ford, Oni, Agyemang, Mota, Ikuomola, Simbayi, Gallah, Qian, Makinwa, Niang and Okosun, 2020). In South Africa and elsewhere, it became clear that this dominant communication strategy adopted by most governments worldwide was proving to be missing the mark as it ignored cultural and structural factors predisposing others to be more at risk than others. This study is in response to the call for a more community-engaged COVID-19 communication response that incorporates community voices in a participatory communication process for social change (Govender, 2021).

The study is set in a South African context in three geospatial locations of rural, township and informal settlement areas in eThekweni Municipality in KwaZulu-Natal province and sets out to explore localised interpretations of COVID-19 communication in these three research sites, and their influence on perceptions of risk, threat and self-efficacy. The study adopts a cultural

lens to this exploration, driven by Airhihenbuwa's assertion that culture should be seen as an asset, instead of a barrier in health communication practice (Airhihenbuwa, 1990).

Background to the study

It is important to provide a broader background into the South African COVID-19 response in general, and its accompanying communication response, in particular, to provide the reader with the context within which the study was conducted.

The South African COVID-19 response

The National Minister of Health reported the first COVID-19 case in South Africa on 5 March 2020 and announced that this was a 38-year-old man from KwaZulu-Natal who had travelled to Italy (NICD, 2020). Subsequent COVID-19 cases reported after this initial case were identified as citizens who had travelled to various countries in Europe and China (NICD, 2020). By the 15th of March 2020, the country had 61 reported cases of COVID-19, and South African President Cyril Ramaphosa declared a national State of Disaster which involved the closing of schools, borders and ports of entry into the country, limitations of not more than 100 people at any event, including funerals, and various other measures aimed at controlling the further spread of COVID-19 (National Department of Health, 2020). A National Coronavirus Command Council (NCCC) was also established for co-ordination of all aspects of the COVID-19 response in the country, as part of these measures.

With the number of reported COVID-19 cases increasing six-fold in just eight days, South Africa was now reporting increased local transmission, necessitating the announcement of a 21-day full lockdown by 23 March 2020 (Business Tech, 2020), which would last from Thursday, 26 March to Thursday, 21 April 2020, although it was later extended to the end of April 2020 (Ramaphosa, 2020). The basis for the justification of the 21-day lockdown was that countries that had implemented similar containment measures in the West had been "far more effective in controlling the spread of the disease" (Business Tech, 2020). The country's military apparatus, in the form of the South African National Defence Force (SANDF) and the South African Police Services (SAPS), was deployed to support and enforce the lockdown (The Presidency, 2020).

A Ministerial Advisory Committee (MAC) consisting mainly of scientists was also set up to provide ongoing guidance to the government on developments with COVID-19 (Leburu,

Shilumani, Bhengu, Matlala, Maja, Jimoh, and Mayet, 2022). To cushion the economic blow resulting from the lockdown, a cross-sectorial response was implemented, with significant financial resources deployed to support various initiatives aimed at alleviating the negative socio-economic effects of the lockdown (The Presidency, 2020). The full national lockdown in South Africa lasted for a little over a month, after which the NCCC started a process of a phased easing of the lockdown, which was known as the five-level risk-adjusted strategy.

Risk-adjusted COVID-19 strategy

The risk-adjusted strategy involved the imposition of specific measures at different alert levels and was classified according to five levels, as follows:

- Alert level 5 (Severe Measures): This level involved the most stringent restrictions and included a full national lockdown with limitations on movement, closure of non-essential businesses, faith-based gatherings, weddings, sporting events and many others. Funerals and cremations were permitted, but with limitations on numbers attending and the prohibition of other rites related to funerals, such as the washing of the body by the family, night vigils, the viewing of the body and the handling of the body with bare hands. Mask wearing in public and at funerals was mandatory and enforceable by the law, with fines and imprisonment as possible consequences for failure to adhere to the stipulated regulations. Public transport vehicles were restricted to 50% occupancy. Personnel working in health facilities, the police and the army were termed ‘essential service’ workers and were allowed to continue working on the frontlines, as it were, with health workers attending to the sick and the police force and the army mainly working to enforce the national lockdown in communities. The rallying call from government to citizens was to ‘Stay Home: Save South Africa’ (see Figure 1), which was a tagline on all government-produced COVID-19 communication products, justified on the basis of high COVID-19 transmission and low health system readiness.



Figure 1.1 - Level 4 Communications – www.sacoronavirus.co.za

- Alert level 4 (Extreme Precautionary Measures): Alert level 4 indicated moderate to high COVID-19 spread with a low to moderate health system readiness. At this level the aim was to limit community transmission, while allowing some activities to resume, but under strict health and safety protocols. Most of the restrictions related to Level 5 remained in place, and activities that were allowed were mainly economic, to address the economic concerns of the country. Due to the lifting of some restrictions, government's rallying call changed from 'Stay Home ...' to 'Stay Safe: Save South Africa', a tagline that remained in place throughout all alert levels lower than level 5.
- Alert level 3 (Restrictions on activities): Alert level 3 indicated moderate COVID-19 spread with moderate health systems readiness and aimed to balance the need for economic activity with the need to prevent the spread of COVID-19. Whilst casinos, theatres, museums, beaches and other similar places were opened with limitations of numbers, prohibition of faith-based gatherings and funeral restrictions of no more than 50 people remained in place. Key messages communicated were the compulsory wearing of masks in public, with non-compliance punishable through a fine and/or imprisonment, and the slogan 'No mask, no entry' being promoted for entry into shops and other gatherings, handwashing, and the maintenance of physical distancing guidelines.



Figure 1.2 - Level 3 Communications – www.sacoronavirus.co.za

- Alert level 2 (Physical Distancing Measures): This level indicated moderate COVID-19 spread with high health systems readiness. Measures at this level were focused on physical distancing and some restrictions on leisure activities to prevent a resurgence of COVID-19, while allowing for further easing of restrictions. Messages at this level praised South Africans for their collective efforts in slowing the spread of COVID-19 and encouraged communities to prevent a resurgence through the continuous practice of prevention measures of face masks, handwashing and physical distancing.



Figure 1.3 - Level 2 Communications – www.sacoronavirus.co.za

- Alert level 1 (Resumption of Normal Activities): This alert level indicated low COVID-19 spread with high health systems readiness. Most normal activities were allowed to resume at this level, provided precautionary measures were in place and health guidelines were followed, although hospital visitations remained prohibited. The use of masks, frequent handwashing and physical distancing continued to be emphasised at this level.

These alert levels were the main method that the government used to control movements of people, as a safety measure for the prevention and control of COVID-19.

Whilst the risk-adjusted strategy aimed to strike a balance between reducing economic hardships and preventing the spread of COVID-19 (sacoronavirus.co.za, 2020), it instead sparked an outcry as most of the public health measures imposed were impossible to adhere to, especially in overcrowded informal settlement areas (Jansen and Madhi, 2022; Ellison et al., 2022). News reports of open flouting of the COVID-19 restrictions by communities gave credence to this fact (Pijoos, 2020; Mtetwa, 2022). The taxi industry protested the occupancy restrictions, as well as the fact that they were not properly consulted before these restrictions were put in place (Parliamentary Monitoring Group, 2020). The militarised approach adopted by the government through the enforcement of prevention measures by the South African Police Services (SAPS), backed by The South African National Defence Force (SANDF), with

penalties of imprisonment for lack of adherence also led to harsh criticisms (Staunton, Swanepoel and Labuschaigne, 2020), especially when news broke out of the arrest of 50 wedding guests, including the bride and groom, for flouting COVID-19 regulations (BBC News, 2020).

Experiences of confusion, fear and resentment caused by restrictions on funeral customs and practices were reported, as rural communities in the Eastern Cape perceived these regulations as an assault on the dignity of death and the ability of families to send their loved ones to the afterlife (Bank and Sharpley, 2022). Regardless, communication remained a key consideration for the management of the COVID-19 crisis in South Africa, as information was rapidly changing and often incomplete (Leburu et al., 2022).

The South African COVID-19 communication strategy

The COVID-19 communication landscape in South Africa was predominantly government-led, and centrally coordinated through the government's central communication agency, the Government Communication and Information Services (GCIS). Starting with South Africa's President Cyril Ramaphosa's declaration of a National State of Disaster on 15 March 2020, because of COVID-19, subsequent communication remained predominantly monologic through paid-for advertisements in electronic and print broadcasting, including community radio, as well as media engagement and the use of government digital media platforms, including social media channels. Regular television addresses by the state president featured strongly in the South African COVID-19 communication response, with periodic addresses to the nation on the latest developments on the pandemic, and government measures to control its spread. Dubbed 'family meetings' by South Africans on Twitter (now X) (Gibson, 2021), these presidential addresses were unprecedented due to their frequency and popularity at the time (Feltham, 2021: online), and were seen by others to contribute to nation-building as they were characterized by "political rhetoric" that worked "to construct the nation and its people as under threat", while also urging people "to unite as a nation through a shared sense of belonging, responsibility and participation in the nation state itself" (Gibson, 2021:281).

The SA National COVID-19 website¹ was quickly established and specifically dedicated to disseminating information on COVID-19 (Kretzer and Pfeiffer, 2022). The National

¹ www.sacoronavirus.co.za

Coronavirus Command Council (NCCC), which consisted of representatives from different government departments also held televised media briefing sessions with updates on COVID-19 advisories and latest regulations. The communication approach was overall government-driven in a one-way fashion that left no space for dialogue, either with the public or with the media (Feltham, 2021), and attracted criticism for “discarding the inclusion of communities directly affected and infected by the plight of COVID-19”, culminating “in behavioural change and communication interventions that excluded the voices of beneficiaries of health interventions for whom these were developed” (Govender, 2021:104).

The South African RCCE Strategy

Prior to the unfolding of the above events, the South African government had already embarked on a draft preparedness plan which included, amongst other strategies, the establishment of a national COVID-19 Risk Communication and Community Engagement (RCCE) technical working group (TWG) in March, 2020, which consisted of government departments, agencies and inter-agencies and implementing partners, and which would primarily lead the COVID-19 communication effort in the country (Department of Health, 2022). Supported by provincial RCCE TWGs, the national RCCE TWG became the main body that planned and co-ordinated all risk communication related to COVID-19 in the country, including managing perceptions and misinformation (Department of Health, 2022).

The RCCE TWG started various engagements with different sectors of the public, and instituted an SBCC strategy whose main goal was to get the COVID-19 pandemic under control and to work towards opening the country for business, education, sports and various other activities (sacoronavirus.co.za, 2020). This RCCE strategy was characterised by an attempt to ensure transparent communication, empowering communities to act, strengthening public trust and community participation, using multiple communication channels for information dissemination, monitoring rumours and misinformation, and capacity enhancements to ensure systems for message dissemination across all districts (Leburu et al., 2022). South Africa’s RCCE strategy was not without its challenges, however, some of which included limited financial resources that limited the scope and reach of communication channels, and the rapid spread of rumours and misinformation via social media platforms, highlighting the need for more effective management of communication channels and increased community participation (Moonasar, Pillay, Leonard et al., 2020).

The South African government's RCCE strategy later included social listening as part of its strategy to remain abreast with conversations, rumours and misinformation that were circulating at community level concerning COVID-19 and vaccines (sacoronavirus.co.za, 2021). According to Stewart and Arnold (2018:86), social listening is "an active process of attending to, observing, interpreting, and responding to a variety of stimuli through mediated, electronic and social media channels". The main aim of social listening is to identify unanswered questions, complaints and suggestions and to help identify rumours, misinformation and disinformation circulating at community level (Sommariva, Mote, Bon, Razafindraibe, Ratovoanany, Rasoamanana, Abeysekera, Muhamedkhojaeva, Bahsar, James and Sani, 2021:58). In South Africa, social listening as an additional RCCE strategy, started later in the pandemic response in May 2021, when COVID-19 vaccines were introduced, as this period marked a rapid increase in misinformation and conspiracy theories, particularly related to vaccines. COVID-19 social listening reports were shared on the sacoronavirus.co.za website to increase transparency in communication and to inform the public on rumours and misinformation circulating at the time, with the aim of correcting them.

Since social listening was started later in the SA COVID-19 response, and mostly in response to fake news and conspiracy theories around vaccines, the rumours and disinformation identified in social listening reports were mainly about COVID-19 vaccines, and included concerns about efficacy and side effects of vaccines, the use of religion and Christianity, in particular, to imply that vaccines were a tool of the devil, ungodly and unchristian, mRNA vaccines will kill people in two years, the COVID-19 vaccine is intended to reduce/control the African population (sacoronavirus, 2021). There were some rumours and disinformation that were not necessarily about vaccines, and which persisted in community narratives picked up through social listening mechanisms, and these are that COVID-19 does not exist, COVID-19 case and mortality numbers are exaggerated, and that herbal remedies and Ivermectin are effective in treating COVID-19. According to the Africa Infodemic Response Alliance, the belief that Africans are immune to COVID-19 was a rumour that was not only specific to South Africa but was also picked up in social listening reports in other African countries such as Nigeria, Ghana and others (WHOa, 2020).

COVID-19 rumours and misinformation in South Africa were dispelled mainly through the use of debunking strategies, despite evidence showing that online "debunking posts remain mainly confined within the scientific echo-chamber" and that citizens belonging to the conspiracy

theory echo-chamber mainly ignore debunking messages, and that debunking further entrenches beliefs in conspiracy theories; what has been referred to as “backfire effects” (Zollo, Bessi, Del Vicario, Scala, Caldarelli, Shekhtman, Havlin, and Quattrociocchi, 2017); Harambam, 2021).

Criticisms of the South African COVID-19 communication response

The COVID-19 strategy adopted by the country was applauded initially by some for being swift in containing the spread of the pandemic through several containment measures, including a hard lockdown, widespread community screening, early isolation and quarantine of suspected cases, and a well-co-ordinated cross-sectoral response to cushion the economic effects of the pandemic (United Nations South Africa, 2020). However, there were scathing attacks on this strategy as well coming from several quarters (Nyashanu, Simbanegavi and Gibson, 2020; Dintsi, Mbanga and Smallwood, 2020; Mbambo and Agbola, 2020), mainly questioning the justification of a blanket hard lockdown that was impossible to adhere to in most communities, notably townships and informal settlement areas characterised by overcrowding, insufficient water supplies and unhygienic environments.

Rationale for The Study

In light of the predominantly individual-focused COVID-19 messaging, calls started coming in from civil society organisations and academia for governments to take on board lessons learnt from other pandemics such as Ebola and HIV in the African context, and to ensure COVID-19 communication responses that recognise the influence of the cultural and structural environment in increasing vulnerability (Anoko, Barry, Boiro, Diallo, Belizaire, Djingarey, N'da, Yoti and Fall, 2019). In addition, the WHO’s COVID-19 research roadmap called for social science research that explores how individuals and communities make sense of COVID-19, what the most effective strategies are for addressing underlying drivers of fear, anxieties, and risk amongst populations, and what the relevant, acceptable and feasible pathways are for engaging communities meaningfully in the COVID-19 response (WHO, 2020c). Soon thereafter, Airhihenbuwa et al., (2020:2) joined the debate, calling for “community-engaged communication” that acknowledges “the voices of those in the community with culturally relevant solutions”, arguing that that an effective global COVID-19 communication response is one that “invites community engaged solutions with culture as a connecting space”.

The study is a response to these calls and investigates local interpretations of the dominant COVID-19 messages to determine how they influence perceived risk, threat and self-efficacy in relation to COVID-19 within densely populated or spatially congested informal settlement, rural, and township settings in eThekweni Municipality in KwaZulu-Natal province in South Africa. The study further explores social, cultural and structural factors that influence decision-making around COVID-19 in these research sites, as well as the influence of personal and community networks on the adoption of COVID-19 prevention messages. Explored through a cultural lens, the study seeks to respond to these calls by determining the acceptable and feasible pathways for the development of locally relevant COVID-19 prevention messaging.

Problem Statement

In Africa, despite considerable experience with past pandemics and epidemics such as Ebola and HIV, COVID-19 containment measures of lockdowns, for example, were cut and pasted from the Global North with dire consequences for human life, the economy, security and freedom, sparking significant criticism (Ndlovu-Gatsheni, 2020). Health communication approaches adopted “a public health or health-promotion strategy” that failed to meaningfully engage communities in dialogue for collective action and social change (Govender, 2021:101). This “hegemonic communication response framework” advanced “the ideology of individualism” with its persuasion-based messages, devoid of structural and cultural considerations that impact decision-making around COVID-19, and neglecting culture as a site of meaning-making around illness and disease (Dutta, 2021a:86).

For Govender (2021:103-104), the South African government’s initial COVID-19 strategy “focused on a public health and epidemiological approach”, and “discarded the inclusion of communities directly affected and infected by the plight of COVID-19”. Govender’s criticism of this public health approach to the South African COVID-19 response was based on the resultant exclusion of community voices for whom these interventions were designed, arguing that this impacted the uptake of recommended preventive behaviours. This was echoed by others who expressed concerns that government communication on COVID-19 was top-down and left no opportunity for communities to have an input on the stringent containment measures that were implemented (Staunton, Swanepoel and Labuschaigne, 2020).

In addition, with South Africa being known for its high income inequalities, some cautioned against the expectation of a uniform behavioural response to COVID-19 (Kollamparambil and Oyenubi, 2021) as the main COVID-19 prevention behaviours of mask-wearing, physical distancing, hand-washing, limited numbers at funerals and other gatherings promulgated at the time, proved to be both impractical and impossible to maintain in most South African contexts, specifically in overcrowded informal settlements (Jansen and Madhi, 2022). Calls therefore increased for a more community-engaged strategy similar to the HIV response which had shown that when people are meaningfully engaged, they are able to contribute to meaningful solutions and innovations (United Nations South Africa, 2020).

This argument around the ineffectiveness of one-way, broadcast messages through mass media, devoid of critical dialogue and engagement with communities for behaviour change is not new, and has been advanced by several scholars (Servaes, 2013; Obregon and Waisbord, 2014; Arhihenbuwa and Dutta, 2012) who criticise it for stifling public participation and failing to integrate local knowledge and contexts (Charania and Tsuji, 2012). Evidence with HIV and AIDS in South Africa and elsewhere indicates that community mobilisation, the development of social capital, dialogue and empowerment leads to sustainable local responses to community health problems (Campbell and Cornish, 2010). Indeed the lack of community engagement in responding to the Ebola outbreaks of 2013 to 2016 in some African countries was associated with increased reluctance and resistance by local communities to adopt the recommended Ebola prevention measures, which involved isolating those infected in government health facilities and not touching or bathing the deceased' body, as localised cultural interpretations in these communities were incongruent with government communications for prevention (De Vries, Rwemisisi, Musinguzi, Benoni, Muhangi, De Groot, Kaawa-Mafigiri and Pool, 2012; Thiam, Delamai, Camara, Carter, Lama, Ndiaye, Nyagero, Nduba and Ngom, 2015).

Adding to this debate, some have argued that the situation imposed by COVID-19 on countries worldwide called for an immediate communication response, meaning that governments cannot be faulted for their predominantly one-way communication strategies to contain the possible effects of COVID-19 (Ellison, Mattes, Rhoma and De Wet, 2022). This argument is valid, considering the unprecedented nature of the COVID-19 pandemic that caught many governments, including South Africa, unprepared. Indeed, lockdown regulations of social distancing challenged consultation and engagement opportunities as people were confined to their homes. Key guidance documents in the global arena also emphasised the crucial role of

government in communicating with the public on COVID-19, with the overall rallying call being for governments to lead the risk communication efforts (WHO, 2020b; CDC, 2020). Based on the above, one can argue that the South African government's communication response was well-intentioned and necessary at the time, as the government had a moral responsibility to communicate effectively to all segments of the country's population.

However, as others argued, COVID-19 reproduced and circulated existing inequalities, further marginalising those at the margins, necessitating a pandemic communication response that is anchored in community voices (Dutta, 2021b). Arguing against the blanket one-size-fits-all approach adopted in COVID-19 communication, Airhihenbuwa et al. (2020:4) advocated for the need to “unpack the different rather than competing cultural logics” in COVID-19 communication and make space for multiple cultural logics through a communication approach that recognises the uniqueness of different cultural contexts.

Aim of the Study

Therefore, this study aims to explore how communities in three different types of localities (township, rural, and informal settlement) interpret COVID-19 prevention communication and how these localised understandings influence their perception of risk and self-efficacy to adopt preventive behaviours. Adopting a cultural lens, the study further explores the social, cultural and structural factors that influence decision-making around COVID-19 in these three geospatial locations, including how personal and community networks influence the adoption of the dominant COVID-19 prevention messages. Such an understanding can shape the development of a more localised response to COVID-19 prevention and contribute to future pandemic communication responses.

Research Objectives

1. To explore the perceptions of risk, threat, and self-efficacy evident in local interpretations of the dominant mainstream COVID-19 preventive messages in the three research sites.
2. To investigate the social, structural and cultural factors that influence decision-making around COVID-19.
3. To explore how personal and community networks influence the adoption of the dominant COVID-19 prevention messages.

4. To propose the acceptable and feasible pathways for the development of locally and culturally relevant COVID-19 prevention messaging.

Research Questions

1. What are the perceptions of risk, threat and self-efficacy evident in local interpretations of the dominant mainstream COVID-19 preventive messages in the three research sites?
2. What are the social, structural and cultural factors that influence decision-making around COVID-19?
3. How do personal and community networks influence the adoption of the dominant COVID-19 prevention messages?
4. What are the acceptable and feasible pathways for the development of locally and culturally relevant COVID-19 prevention messaging?

This thesis is located within the Communication for Social Change (CFSC) and Risk Communication and Community Engagement (RCCE) fields, necessitating a brief exposition of CFSC and RCCE and their relevance to this study. The following section provides a discussion of CFSC and Chapter 2 presents a broader discussion of RCCE and its relation to CFSC.

Communication for Social Change

The multi-faceted role of communication in society is well established. Times of crisis, upheaval, conflict, and change generally render communication in society even more important (Gibson, Dyll, Govender, and Gumede, 2023). The utility of communication to advance development and social change needs and agendas is also well-established in literature globally (Airhihenbuwa, 1999; Melkote and Steeves, 2015; Servaes and Malikhao, 2008; Dutta, 2008; Tomaselli, 2020; Gibson et al., 2023). Scholars have detailed the field's evolution, identifying different paradigms that have informed theory and practice over time, emphasising how the field has shifted from the dominant paradigm, which views development as a linear process from tradition to modernity, to more participatory paradigms, where the focus is on the active participation of citizens in all stages of the development process, although some argue that the two paradigms co-exist in terms of practice (Melkote and Steeves, 2015; Servaes and Malikhao, 2008; Dyll-Myklebust, 2012; Waisbord and Obregon, 2012).

Amongst those situating themselves within the participatory paradigm, different critiques are offered, with a range of contributions, some empirical, and some around epistemological foundations (Tufté, 2024). The unifying call, however, is the need for communication processes that address “systemic challenges, political economy issues, power dynamics, and notions of subjectivity”, whilst also suggesting alternatives that place community voices at the forefront of social change processes (Tufté, 2024:3). Tufté (2017: 14-15) traces the history of CFSC over time, from Nora Quebral’s Development Communication in the 1970s, to Communication for Development, largely influenced by critical thinking in European (and to some extent Latin American) contexts, to Alternative Communication largely influenced by Latin America’s rejection of the concept of ‘development’ for its association with top-down and autocratic development. He brings attention to CFSC which emphasizes “using communication strategically to address and often challenge the structural conditions that inform social change processes” through “bottom-up perspectives such as participatory communication as an empowering and process-focused approach” (Tufté, 2017:14015). This view of CFSC informs the theorising around COVID-19 communication in this study, as it foregrounds collective action with the overall aim of sustainable social change.

CFSC further captures communication not as a process “that presents experts ... as superior and more powerful than those who are presented as receivers of communication messages”, but as “involving attempts to share meaning” with culture being a significant consideration in the communicative endeavour (Chasi, 2011:20). Theorising COVID-19 communication in this study is therefore centred around this participatory paradigm of communication for social change where the analytical focus is on “how people talk about and make sense of issues related to health, disease, and well-being ... identifying challenges and solutions, and determining courses of action” (Waisbord and Obregon, 2012:19). As such, the study does not end at identifying local interpretations of COVID-19 communication and exploring the sociocultural and structural contexts that influence decision-making around COVID-19 but goes further to engage communities in a two-phase process where community voices are foregrounded as research participants offer culturally relevant and feasible solutions.

However, the foregrounding of culture and participation in this study is done with the awareness of the need to avoid what Dutta (2015) regards as the co-optation of these terms as tools for the advancement of neoliberal development to promote capitalist market promotion. To mitigate against this, virtual and face-to-face community dialogues are chosen as a method

to facilitate a dialogic process with research participants in this study on their local interpretations of COVID-19 communication to establish how these impact COVID-19 prevention efforts, and collectively formulate communicative solutions for pandemic communication responses that are contextually feasible and relevant, and which take the cultural context into account. The analytical focus of this study is on how research participants problematise COVID-19 communication and establish priorities for communicative action in the three research sites, based on the unique attributes of the different geospatial locations, and the resultant communicative solutions that they offer, based on their unique geographic and cultural contexts. With its emphasis on bottom-up, participatory communication approaches that consider the cultural context, CFSC frames not only the study, but also the theoretical framework chosen for this study, which is the PEN-3 Model.

Theoretical Framework

This study is theoretically framed within the PEN-3 Model by Airhihenbuwa (1989), which foregrounds the importance of “culturally appropriate and compelling strategies for behaviour change” through an understanding that goes beyond individual-level factors but extends to the relevance of “cultural norms including conditions in which people live, grow, eat and die” (Iwelunmor, Newsome and Airhhenbuwa, 2014:10). This theoretical grounding negates the ‘culture-as-barrier’ bias but instead locates culture as central in determining individual, family and community health by investigating positive, neutral, and negative impacts of culture on health behaviour. The PEN-3 Model is adopted as a theoretical framework, and as an analytical frame to guide data collection in the study. It will be explored in more detail in Chapter 3 of this thesis.

Methodology

This is a qualitative, ethnographic study that is framed within the Social Constructivism paradigm, but which borrows additional concepts from the Transformative and Critical Theory paradigms (Creswell and Poth, 2018). Due to restrictions posed by COVID-19 on data collection methods, the study predominantly uses virtual community dialogues through the medium of WhatsApp group chats, with a few face-to-face community dialogues, with 55 male and female participants in the three research sites for the study, and over a period of 10 months. Data were translated and transcribed and analysed using Reflexive Thematic Analysis (Braun

and Clarke, 2021). A more detailed discussion of the methodology is presented in Chapter 4 of this thesis.

Structure of the thesis

This thesis is divided into eight chapters.

Chapter One presents the introduction to the study, providing the background, rationale, problem statement, research aims, objectives and research questions. This chapter also introduces the theoretical framework adopted for the study and a brief introduction to the research methodology, both to be expanded on in later chapters.

Chapter Two provides the literature review for the study, which is a traditional narrative review that explores literature related to the research questions for the study. The literature review draws on literature from other pandemics that preceded COVID-19, notably HIV, Ebola, H1N1, MERS and other significant pandemics. The literature review first provides an overview of Risk Communication and Community Engagement, followed by an exploration of literature related to risk perceptions, trust in risk communication, socio-cultural and structural factors that influence health decision-making, including COVID-19.

Chapter Three presents the theoretical framework for the study, outlining the genesis of the PEN-3 Model, its main constructs, its varied applications, how it is applied in this study, and an exposition of each of the theoretical constructs, to facilitate an understanding of how the theory links with the research questions for the study, and how it facilitates the analysis of the data generated for the study, in its application as the analytic frame.

Chapter Four presents the Research Methodology adopted for the study, with an outline of the paradigmatic stance adopted, research design, participant sampling and recruitment, data collection processes, data analysis, research integrity, as well as how issues related to ethics were handled in the study.

Chapter Five presents the data analysis method adopted for this study, with visual representations of all the steps undertaken to sort and organize data into meaningful patterns that reflect essential themes emanating from the face-to-face and online community dialogues with study participants. The method used in analysing data is Reflexive Thematic Analysis,

which is “a method for developing, analyzing and interpreting patterns across a qualitative dataset” and involves a “systematic process of data coding to develop themes” (Braun and Clarke, 2021:4).

Chapter Six presents the findings of the study organised according to the themes generated through a comprehensive data analysis process as presented in Chapter 5. While the theoretical framework was used as an analytical frame for the study, the generation of themes was initially conducted inductively, and the themes were later linked to the theoretical framework. This chapter, therefore, presents the findings of this study organized according to the research questions for the study.

Chapter Seven presents a discussion of the findings of this study, with themes linked to the theoretical constructs of the PEN-3 Model. This discussion of findings chapter draws on the literature reviewed, as well as links the findings to the theoretical constructs of the PEN-3 Model.

Chapter Eight is the conclusion chapter, which synthesizes all the elements of the study into a coherent conclusion, highlighting how each research question for the study has been answered, and highlights the unique contribution to knowledge that this study makes.

CHAPTER 2

LITERATURE REVIEW

Introduction

This chapter presents a literature review related to the study's research questions. The approach adopted for the review of literature is that of a traditional narrative review (Efron and Ravid, 2018), which draws from diverse academic disciplines and includes qualitative, quantitative, mixed-methods and theoretical studies to provide a comprehensive background to the main research questions for the study. The literature review's organisation is tied to this study's main research questions.

This study explores community interpretations of COVID-19 communication and how these local interpretations influence perceptions of risk, threat and self-efficacy related to COVID-19 in three research sites of rural, township and informal settlement areas. Literature about local interpretations of illness and disease is explored in relation to different health issues, with attention paid to how these interpretations influence perceptions of risk, threat and self-efficacy and the subsequent influence on desired behavioural outcomes. The interplay of culture, structure and social context in influencing behaviours adopted or rejected as communities respond to the threat of COVID-19 is also explored as part of the second research question for this study. The review of literature in relation to this research question traces previous studies that reveal the influence of social context, culture and structural environment on the adoption (or not) of health behaviours related to various health issues, including COVID-19. Personal and community networks that influence the adoption of COVID-19 preventive messages are also explored as the third research question for this study to elucidate how they play a role in shaping individual and community behaviours necessary for the prevention of COVID-19. This exploration is undertaken to establish acceptable and feasible pathways for developing locally-relevant COVID-19 messaging across three geospatial locations of rural, township and informal settlement areas in eThekweni Municipality in KwaZulu-Natal, South Africa.

In line with the focus of this study, this chapter presents a review of the extant literature on communication during public health risk emergencies, tracing previous studies on the phenomenon. With COVID-19 being one of the more recent and highly mediatised pandemics

in the last decade, this literature review expands the discussion of communication during other emergency infectious diseases, including Ebola, HIV, H1N1, SARS, MERS and others. Exploring perceptions of risk, threat and self-efficacy necessitates scoping literature on risk perception and its link to health communication and behaviour change, which is also explored in this chapter. With COVID-19 being a pandemic of epic proportions, creating a global state of emergency, this chapter will first explore the peculiarities of communication during a public health emergency, including the concept of RCCE, before embarking on a review of the literature, campaigns and policies as stated above.

Communication during a public health emergency

It is generally accepted that communication is an essential component of responses to public health emergencies and is often an important resource available for responders when an emergency outbreak occurs (Vaughan and Tinker, 2009; Wray, Steven, Becker, N Henderson, Glik, C Henderson, Drury and Mitchell, 2008). Communication during a public health emergency assists communities in preparing, responding, and recovering before, during, and after the emergency (WHO, 2020).

Proactive, timely and consistent communication during a public health emergency alleviates confusion and misunderstandings and facilitates the public's adoption of prevention and control behaviours (WHO, 2020). Public health emergencies such as COVID-19 often have psychological impacts on the public, resulting from fear, hopelessness, and helplessness. However, the traditional approach to communication during public health emergencies, involving one-way broadcast messages, usually from the government to communities, has been criticised for stifling public participation and failing to integrate local knowledge and contexts, thus leading to poor adoption of protective behaviours by communities (Airhihenbuwa et al., 2020). In Uganda in 2012 and in Guinea in 2015, during the Ebola outbreak, the lack of engagement of communities was associated with increased reluctance and resistance by local communities to adopt the prevention measures communicated by government health officials (De Vries et al., 2016).

Significant community engagement is crucial in communication efforts during a public health emergency (Charania and Tsuji, 2012) because these events happen within local contexts (Novak, Day, Sopory, Wilkins, Padgett, Eckert, et al., 2019). This idea has been corroborated

in a systematic review of studies that investigated the impact of community engagement of disadvantaged populations in risk communication, which concluded that effective community participation and inclusion of disadvantaged communities is associated with improved health and health behaviours (Cyril, Smith, Possamai-Inesedy and Renzaho, 2015). This study, therefore, investigates localised interpretations of COVID-19 in three geospatial locations of township, rural and informal settlement areas. As such, the following section offers a discussion on RCCE, highlighting evolving thought and practice in the field.

Risk Communication and Community Engagement

Communication during an emergency has risen to prominence in recent years, following 9/11 and other large-scale natural disasters that have threatened the physical and mental health of large groups of people worldwide (Glik, 2007). Terms such as *Risk Communication (RC)*, *Crisis Risk Communication (CRC)*, *Crisis and Emergency Risk Communication (CERC)* and *Risk Communication and Community Engagement (RCCE)* have proliferated in the literature in recent years as practitioners try to formulate strategies for communication during disaster and public health emergencies (Glik, 2007; CDC, 2018).

In a review of literature aimed at tracing the origins of risk communication, Glik (2007:34) distinguishes between *crisis risk communication* – “accurate and effective communication to diverse audiences in emergency situations” and *risk communication* – “Information exchange about health risks caused by environmental, industrial or agricultural processes, policies, or products among individuals, groups and institutions”. The Centers for Disease Control and Prevention (CDC) (2018) refers to CERC as communication in response to a public health emergency meant to help communities prepare for, respond to, and recover from a public health emergency. While CERC combines elements of risk communication and crisis communication, it differs from pure risk communication in that in CERC, decisions must be made in a short space of time, in periods of uncertainty, and with incomplete information (CDC, 2018).

Risk Communication

There is general agreement that the field of risk communication is evolving, with research and practice boundaries in the field being shaped and reshaped over time (Balog-Way, McComas and Besley, 2020). Risk communication has been applied in addressing a variety of risks, including nuclear disasters (Figueroa, 2013), climate change (Roeser, 2012), deforestation

prevention (Chania and Hidayat, 2024), and other health-related risks. Earlier articulations of risk communication drew mainly from the sender-receiver communication model, where expert risk assessments would be communicated to a lay public, assuming that lay perspectives of risk are irrational and subjective (Covello, 1992). As a result, the practice of risk communication focused mainly on aligning lay perspectives of risk with those of scientific experts, expecting this to result in the desired behaviour change.

Subsequent definitions added the dimension of recipients reflecting on risk communication and expressing their concerns and opinions, as well as the idea that risk communication should be action-oriented and incorporate and respect recipients' perceptions (Ropeik, 2008). This is due to the growing acceptance in the field of risk communication that interpretations of risk by the lay public are inherently different to those of scientists, which necessitates an acceptance that "both science-based views of experts and the intuitive view of risk among the general public are valid, and both must be respected and incorporated if communication about risk is to be effective" (Ropeik, 2008:1030). This is why, in this study, community perceptions of risk emanating from local interpretations of the dominant COVID-19 messages are investigated to establish how these perceptions of risk influence the adoption of preventive behaviours with regards to COVID-19 by communities in these three geo-spatially different locations. Insights emanating from this exploration will contribute to the extension of knowledge on participatory pandemic communication responses that amplify community voices and consider the socio-cultural and structural contexts as critical mediators of health meaning/sense-making and decision-making.

Community Engagement during health emergencies

Significant community engagement (CE) is crucial in communication efforts during a public health emergency (Charania and Tsuji, 2012), since these events happen within local contexts (Novak, et al., 2019). This idea has been corroborated in a systematic review of studies that investigated the impact of community engagement of disadvantaged populations in risk communication, which concluded that effective community participation and inclusion of disadvantaged communities is associated with improved health and health behaviours (Cyril, Smith, Possamai-Inesedy and Renzaho, 2015).

The WHO additionally argues that effective RCCE should be grounded on sound and evidence-based community engagement strategies (WHO, 2020). The dimension of community

engagement in RCCE is founded upon the premise that in responding to public health emergencies, engagement with communities is critical to understanding community dynamics and cultural practices more profoundly and ensuring that communities are involved in planning and managing the communication response (UNICEF, 2020). Indeed, the fourth research question for this study explores acceptable and feasible pathways for the development of locally relevant messages on COVID-19. This aspect requires a focus on how communities can be engaged in responding to the COVID-19 pandemic.

Defining Community Engagement

The Centre for Disease Control (CDC) defines community engagement as “a process of working collaboratively with groups of people who are affiliated by geographic proximity, special interests, or similar situations, concerning issues affecting their well-being” (CDC, 1997:9). However, UNICEF (2020:6) expands on this definition to provide a wholistic picture of what is involved in community engagement processes, including outcomes that should emanate from a CE process in their expanded definition below:

A foundational action for working with traditional, community, civil society, government, and opinion groups and leaders; and expanding collective or group roles in addressing the issues that affect their lives. Community engagement empowers social groups and social networks, builds upon local strengths and capacities, and improves local participation, ownership, adaptation and communication. Through community engagement principles and strategies, all stakeholders gain access to processes for assessing, analysing, planning, leading, implementing, monitoring and evaluating actions, programmes and policies that will promote survival, development, protection and participation.

Whilst the CDC definition explains the ‘what’ question, the expanded UNICEF definition identifies additional aspects that characterise a CE process: it empowers and builds on community assets, thus leading to community ownership that can be sustained over time. The UNICEF definition further explains the benefits of CE, which include the affordance of authentic community participation in all processes. Risk communication is, therefore, strengthened if the CE component is integrated fully into the communication effort as it allows communities to participate in determining courses of action on issues that directly affect them, enhancing the ability of the communication process to resonate more with local communities.

The case for Community Engagement for COVID-19 prevention and control

CE has been adopted as a strategy in health research and practice in the past decades based on the recognition that individual and community health is influenced by a range of social, cultural and structural factors, necessitating the need for the engagement of communities to understand their perspectives on causal factors, and to co-design health solutions with them (CDC, 2011). There is general agreement amongst scholars on the various benefits of CE, some of which include increased buy-in by communities, ensuring sustainability of health interventions, the establishment of trust and reciprocity between intervention planners and communities, ensuring that health interventions are tailored to locally and culturally grounded interventions and building partnerships and trust between authorities and communities (Palmer-Wackerly, Krok, Dailey, Kight and Krieger, 2014; Gilmore, Ndejjo, Tchetchia, de Claro, Mago, Diallo, et.al., 2020; King, Hicks, Rassi, Shafique, Barua, Bhowmik, et al., 2020).

As already established, this study is situated within the broad scholarship on RCCE, as it explores COVID-19 communication. This global health risk overwhelmed health systems and required reliance on risk communication to ensure that communities are informed of the pandemic and the relevant protection measures as it evolved. A discussion on CE as part of RCCE is therefore essential to incorporate into this literature review, as it is the premise in this study that community voices are imperative to amplify to understand the acceptable and feasible pathways for the development of locally relevant COVID-19 prevention messages, which is the fourth research question for this study.

In a rapid evidence synthesis of the use of CE in previous epidemics, Gilmore et al. (2020) provide evidence that CE is effective for infectious disease prevention, including COVID-19. Based on evidence on the use of CE in other infectious diseases such as H1N1, MERS, Ebola and Zika, Gilmore et al. (2020:8) identify essential programme and policy recommendations for COVID-19 prevention and control through CE, which are:

- Ensuring community entry processes early at the onset of the pandemic to understand sociocultural contexts and develop culturally appropriate strategies for prevention and control, and identifying safe, feasible and acceptable pathways for prevention interventions, leveraging on already-existing community assets.
- Involvement of communities in participatory processes of codesigning prevention and control interventions, including the development of locally relevant messages.

- The incorporation of community members into planning, implementation and monitoring mechanisms, where communities themselves play an active role in informing surveillance measures of contact tracing and preferred isolation and quarantine measures, and adjustments of burial practices.
- The involvement of communities in the planning and execution of measures to ensure community health and safety, including the availability of water and sanitation supplies, personal protective equipment and protocols for contact with suspected and/or confirmed cases of COVID-19 at the community level.

Having conducted this rapid synthesis review in 2020, in the early days of the COVID-19 pandemic, Gilmore et al. (2020:2) expressed concern “over the lack of involvement of communities and ‘bottom-up’ approaches used within COVID-19 responses” globally. They advocated for the incorporation of CE into broader country-level COVID-19 responses to reach marginalised populations and ensure equity in health responses. Echoing a similar sentiment, in his critique of “message-based responses” that turn to the individual as “the site of rational decision-making to prevent the spread of the pandemic”, Dutta (2021:89) argues that such a framework for pandemic communication “is silent about the role of structures in shaping, impeding and enabling preventive behaviour”. Pandemic responses, therefore, Dutta (2021:94) argues, should build “voice democracies” that enable communities to articulate their own understandings of the challenges they face regarding COVID-19 and should provide space for communities to digest and understand scientific evidence so that they can offer their own solutions that are based on both the science and “community-anchored knowledge”. CE processes then become critical in ensuring that communities at the margins play a crucial role in co-creating contextually and culturally relevant solutions that enhance opportunities to adopt prevention and control measures at the community level.

This study aims to unearth sociocultural and structural factors that influence decision-making around COVID-19 and to further identify acceptable and feasible pathways for developing locally relevant COVID-19 communication in the three identified research sites. The study adopts the principles of CE in conducting this exploration through the two phases of data collection, the first phase being geared towards engaging in community dialogues that provide an understanding of contextual factors that influence COVID-19 decision-making, and the second phase engaging communities in formulating acceptable and feasible communicative

solutions that can be employed at community level to influence community agency to mitigate against COVID-19 infections at community level. This links to the key tenets of CFSC, which prioritises the amplification of community voices in a participatory and democratic process aimed at meaningful social change.

Local interpretations of COVID-19 messaging

The bio-medical explanation of COVID-19 as a viral pathogen with specific characteristics, transmission pathways, and recognised and widely promoted prevention methods is well established. Communication responses on COVID-19 globally served to entrench this understanding, mainly to encourage prevention efforts in line with the global priority of saving lives. However, equally established in the literature is the phenomenon whereby communities will hold their own interpretations of disease, which may sometimes run counter to the established bio-medical definitions, as seen with Ebola, HIV, H1N1, MERS and other viral pathogens that have preceded COVID-19 (Thomas, 2008; Yeatman, 2011; Henrich and Holmes, 2011; Legg and Penn, 2013; De Vries et al., 2016). Understanding local interpretations of disease outbreaks, especially in emergency health disasters, is therefore vital as it can help identify possible factors that can aid or challenge prevention efforts.

A case in point is a study exploring how communities in rural Malawi explained the relationship between childbearing and HIV infection in a woman, where Yeatman (2011) discovered that interpretations of formal top-down public health messages produced by the government and selective observation led community members in this setting to conclude that childbearing was associated with more adverse health outcomes for HIV positive women, including death. In this study, the message that HIV-positive people should always use a condom was interpreted as meaning that women who are pregnant should not bear children since condom use is also promoted for the prevention of pregnancy. The author concludes that biomedical messages, such as the condom promotion message, are often subjected to a process of translation into meaningful language and concepts by communities based on prevailing narratives in the social context and on previous experiences of illness and that these interpretations are then shared locally in a dynamic process that evolves over time. Whilst this demonstrates an example of cognitive translation of an already-existing health message to correspond with localised understandings of the health message, in other instances it is the

cultural interpretations and explanations of disease in general that run counter to the biomedical narrative promoted by health communication authorities.

In a comprehensive review exploring social determinants of adherence to COVID-19 prevention guidelines, Shashturi et al. (2021) identify religious beliefs, government-citizen relationships, party political dynamics, geographical area, confidence in science (or lack thereof), fatalism and conspiracy theories, as structural factors with a significant influence on people's abilities to adhere to COVID-19 prevention guidelines. This finding is further supported by Airhihenbuwa et al. (2020:1), who argue that research on health disparities related to COVID-19 "demands a focus on risk environment and risk situation rather than the conventional epidemiological focus on risk factors," which is characteristic of conventional biomedical approaches to health communication. The authors argue that this epidemiological approach inadvertently places the burden of behaviour change on the individual instead of the contextual and structural factors that define and constrain their vulnerability.

Other studies have shown that while the pathogen itself is acknowledged as the legitimate cause of illness and death, its severity is downplayed, as was seen in online comments to newspaper articles on the H1N1 vaccine, where commenters felt that the vaccine was not necessary as H1N1 was not as severe as it was projected by government and the media, as it had caused much fewer deaths than the ordinary flu (Henrich and Holmes, 2011). Whilst not disputing the biomedical explanation of H1N1 in this context, social media narratives alleging collusion between governments and pharmaceutical companies for profit displayed differing interpretations by communities to those of communicators, leading to reduced vigilance and adoption of protection measures at a community level and further demonstrating the effect of local interpretations of disease on containment measures. The arguments presented above demonstrate the centrality of the cultural, social and structural context in influencing local interpretations of disease and illness, hence the need in this study to explore what these factors are and how they influence health decision-making at community level.

Pertinent questions of interest in this study are: to what extent do localised interpretations influence perceptions of risk and threat posed by COVID-19? In addition, the role of the social, cultural, and structural context in influencing local interpretations of COVID-19 communication in the three research sites for the study is also explored to determine the extent to which these influence risk perception toward COVID-19. The premise is that risk perception

is directly linked to the adoption (or lack thereof) of protective health behaviours related to COVID-19.

The Influence of Social and Structural Factors in COVID-19 decision-making

The conditions in which people live influence decision-making related to health and disease management (Airhihenbuwa, 1990). Living and working conditions, knowledge, attitudes, risk perceptions, exposure to information sources, social support, trust, social norms, psychosocial well-being, and socio-demographic characteristics are some of the social conditions that may have an impact on how individuals and communities navigate health and health decision-making (Shushtari, Salimi, Ahmadi, Rajabi-Gilan, Shirazikhah, Biglarian, Almais and Gharehghani, 2021).

Structural factors can be categorised as those that encompass economic, social, and political elements in a society (Shushtari et al., 2021). According to Basu and Dutta (2009) structural factors can provide or limit access to resources, which, in turn, can impact human behaviour related to health. In arguing for a culture-centred approach to health communication, Dutta (2008) highlights the imperative of understanding the structural factors in healthcare settings that constrain access to health and health resources at the community level through engagement with communities at the margins. Health communication strategies that fail to engage communities oftentimes lead to intervention planners missing key behavioural health issues that impact health decision-making.

In this section, social and structural factors of trust, risk perception, misinformation, disinformation, conspiracy theories and language are discussed to elucidate their influence on COVID-19 decision-making and behaviour.

Risk Communication, Risk Perception and Health Behaviour

In line with the first research question for this study, which explores perceptions of risk, threat and self-efficacy evident in local interpretations of the dominant mainstream COVID-19 messages, a discussion of the concepts of risk perception and self-efficacy is therefore essential to include. The link between risk communication and risk perception is well-established in the literature on risk communication (Heydari, Zarei, Sadati, Moradi, Akbari, Mehralian and Lankarani, 2021). According to Lundgren and McMakin (2018), this relationship between risk

communication and risk perception is complex and interconnected and shapes people's responses to health-related risks. An exploration of this complex and interconnected nature of risk perception and risk communication is therefore apt.

Literature shows that risk communication can shape individuals' perception of risk, which, in turn, can influence individuals' behavioural intentions and actions (Heydari et al., 2021). Some have also argued that risk perception can influence individuals' perception of the effectiveness of risk communication, as risk communication often invokes emotional responses and is influenced by social factors such as trust in the information source or social norms (Gutteling, Terpstra and Kerstholt, 2018). Recognising the intertwined relationship between risk perception, risk communication, and health decision-making, this study further explores social, cultural and structural factors that influence health decision-making around COVID-19 in the three geospatial sites of township, rural and informal settlements; the second research question for this study.

The argument that risk perception of a health threat is a necessary precursor to health behaviour change has been established in literature (Renner, Schupp, Vollman, Hartung, Schmalzle and Panzer, 2008). According to Rohrman (2008:1), risk perception refers to "people's judgments and evaluations of hazards they (or their facilities, or environments) are or might be exposed to." In the case of COVID-19, exploring risk perceptions has become increasingly important as it is believed that risk perception influences beliefs, knowledge, values, and attitudes that impact health decision-making (Cori, Bianchi, Cadum and Anthonj, 2020).

Studies conducted in different contexts globally have also shown that a high perception of risk is likely to influence individuals and communities positively in terms of their likelihood to adopt prevention measures stipulated, while a low-risk perception results in communities abandoning prevention measures and engaging in high-risk activities (Renner et al., 2008). In the case of COVID-19, some studies have shown that people who value individual responsibility show lower levels of adherence to COVID-19 prevention measures than those who hold communitarian values (Siegrist and Bearth, 2021). This is similar to findings from a meta-analysis examining the relationship between cultural worldview and risk perception, which revealed that cultural worldviews, reflected in preferences for social organisation, were significant determinants of risk perception of environmental hazards (Xue, Hine, Loi, Thorsteinsson and Phillips, 2014). Results of this study, which explored four cultural

dimensions of egalitarianism, individualism, hierarchism and fatalism, showed that respondents with an individualistic and hierarchical orientation had lower risk perceptions of environmental hazards, whilst those with an egalitarian worldview displayed high risk perception and those with a fatalistic orientation were indifferent to environmental hazards (Xue et al., 2014).

This study, however, was conducted in the Australian context, and in relation to environmental risks and hazards that are not immediate, as was the case with the advent of COVID-19. The authors additionally acquiesce that this meta-analysis did not include any Asian, African or South American studies, rendering the results unable to be generalised to these cultural contexts and that the theoretical framework of Cultural Theory that was applied in their study is based on measures developed in the West, which may not be relevant in other cultural contexts. This study explores local interpretations of the dominant COVID-19 communication and their role in influencing perceptions of risk and self-efficacy in communities in the three research sites. The assumption is that local interpretations of COVID-19 communication are influenced by social, cultural, and structural factors inherent in these three communities.

Therefore, the aim is to establish what these factors are and how they influence decision-making around COVID-19 at the community level. Insights from this exploration can elucidate how the socio-cultural worldviews of research participants in the three research sites influence decision-making around COVID-19. In line with the PEN-3 Cultural Model applied as the theoretical framework for this study, culture is explored for its positive, existential and negative attributes that may affect health decision-making. With most studies in risk communication adopting a negative view of culture, the thesis of this study is that all aspects of the cultural environment should be explored so that positive and existential aspects can be leveraged for positive health outcomes, while negative aspects should be addressed to limit their effect on health decision-making around COVID-19.

With the understanding that trust influences risk perception, in this study the concept of trust is a pertinent one to explore in terms of its role in influencing risk perception in the three geospatial locations for this study. With government as the chief communicator in the South African COVID-19 response, the extent to which communities' current and previous experiences of the government influence their level of trust in the government's response is an important consideration that may determine how communities interpret COVID-19

communication and how these interpretations affect risk perception and consequent acceptance of COVID-19 prevention measures.

Trust and its influence on COVID-19 decision-making

Trust in the communication source is another socially contextual factor that impacts risk perception and how communities view risk communication and consequently act on it. Trust is a well-studied phenomenon across various disciplines, including management studies, economics, psychology, sociology and others (Rousseau, Sitkin, Burt and Camerer, 1998). According to Rousseau et al. (1998:395) and based on a broad synthesis of definitions across various disciplines, trust is “a psychological state comprising the intention to accept vulnerability based upon positive expectations or behaviour of another”.

According to Earle (2010), trust can be conceptualised as relational trust, meaning that it's based on relations between the trusting person and the other, or as calculative, where it is based on past behaviour of the other or anticipated constraints on future behaviour. According to these two conceptualisations, the former is termed *trust*, and the latter is referred to as *confidence*. Inherent in these two conceptualisations of trust is the understanding that trust depends on the current relationship between the trusting person and the other, as well as on the nature of past behaviour of the other. In the field of communication, which distinguishes between the sender and receiver in the communication process, trust then becomes fundamental in influencing human behaviour, as it is mediated by perceptions emanating from the nature of current relationships between the sender and receiver of communication, as well as past behaviours of the sender of the communication (Rousseau et al., 1998).

Trust in risk communication emerged as a significant predictor of compliance with prevention measures during the Ebola outbreak in some West African countries. In Liberia, between 2014 and 2016, Blair, Morse and Tsai (2017) found that trust in government was positively correlated with the adoption of prevention measures and overall support for Ebola control interventions, although trust in government was also positively associated with lower levels of knowledge. In addition, in the same study, evidence revealed that personal experiences of hardships related to Ebola reduced trust in government. Of interest in this study is that trust in international Non-governmental Organizations (iNGOs) was not positively correlated with compliance or support of prevention measures, which is in contrast to findings by Arthur, Horng, Bolay, Tandanpolie, Gilstad, Tantum and Luby (2022), who report that trust in iNGOs

was consistently higher than trust in government, and that iNGOs should be leveraged for support in future pandemic communication, but without alienating the government from the populace. Amid this conflicting evidence regarding trust and communication sources with regard to iNGOs, other evidence points to community-based sources of information as more credible in enhancing trust in pandemic communication.

In another study examining the impact and effectiveness of government outreach during the Ebola epidemic in Liberia, strategies such as door-to-door canvassing and the involvement of local intermediaries in persuading communities to adopt Ebola prevention measures yielded positive results as knowledge increased and attitudes towards the prevention measures were improved significantly (Tsai, Morse and Blair, 2020). These authors conclude that the credibility of local intermediaries contributed to building trust in the government, resulted in increased cooperation with Ebola control policies and prevention measures by local communities, and emphasised the importance of community engagement in pandemic responses. As such, in this study, communities in the three research sites are involved in a participatory community engagement process to identify acceptable and feasible pathways for developing locally relevant COVID-19 communication, the fourth research question for this study. Insights from this process are essential to inform future pandemic communication responses and to challenge “the hegemonic health communication response framework” that embodies “the ideology of individualism” and “message-based strategies of persuasion” which ignore the cultural and structural contexts in which people live (Dutta, 2021:86).

In the context of COVID-19, the concept of trust in risk communication expectedly emerged as a significant predictor of behavioural decision-making related to the prevention of infections. In a two-wave longitudinal survey in Switzerland involving 1223 citizens, Siegrist and Bearth (2021) explored factors that influenced perceived risks and acceptance of COVID-19 prevention measures over two waves of the pandemic approximately three weeks apart. In this study, individualistic worldviews were associated with low trust in government and less acceptance of prevention measures. In addition, the study also revealed that people with low social trust and low-risk perceptions had less acceptance of the prevention measures, as opposed to those who held the opposite view. In the same study, the number of infections decreased between the first and second waves, further decreasing risk perception and acceptance of prevention measures.

The authors thus conclude that trust, worldviews, and risk perceptions were significant determinants of health decision-making with regards to COVID-19 in this context and that future pandemic responses should consider both the science and societal values in designing pandemic communication responses as the implementation of risk management strategies during a pandemic is “a question of not only scientific evidence but also people’s worldviews” (Siegrist and Bearth, 2021:4). This underpins the importance of exploring risk perceptions evident in local interpretations of COVID-19 communication, as well as the socio-cultural and structural factors that influence decision-making around COVID-19 in this study, to demonstrate the shortcomings of a predominantly public health response that ignores the socio-cultural and structural context. The finding related to individualistic worldviews and the low trust in government is an interesting factor to explore further in this study, which is conducted in a context characterised by a communal worldview in the three research sites for the study. It will be interesting to explore if this finding also holds true in this study’s context and what the implications are for future pandemic communication responses.

Whilst the study by Siegrist and Bearth (2021) highlights characteristics inherent within individuals and societies as determinants of public trust in COVID-19 measures imposed by governments, other studies purport that government actions before and during the health crisis imposed by COVID-19 influence public trust in government measures to control the pandemic, invoking Earle’s (2010) conceptualisation of *calculative trust*, which he refers to as *confidence* in the communication source. In an analysis of the Israeli government’s COVID-19 response, Gesser-Edelsburg (2021) claims that the public lost trust in the government’s response and subsequent demonstrations protesting the COVID-19 regulations were along political lines, based on the political climate that existed before COVID-19, where President Netanyahu was head of a caretaker government, and was facing several criminal cases against him. The Israeli COVID-19 response was additionally said to be characterised by non-inclusivity in its communication style, lack of transparency about morbidity and mortality data and the presentation of conflicting and irrational, unscientific guidelines, the disregard for older populations living in old age homes and the blaming of some religious groups, perpetuating othering narratives that preceded the advent of COVID-19. In addition, in this setting, leaders were seen as negative role models as they continuously flouted COVID-19 regulations themselves. This then led to waning trust in the government’s COVID-19 response, with subsequent non-adherence to prevention measures by the public and widespread demonstrations against the Israeli government’s COVID-19 response. The Israeli example,

then, shows both *relational trust* and *calculative trust* in operation as trust was eroded by both previous experiences with the government as well as the current approach that government adopted in managing the pandemic.

This is similar to Sierra Leone's example with Ebola, where the longstanding enmity between government and citizens, stemming from decades of poor service delivery, transferred feelings of mistrust in dealing with the Ebola crisis in the country (Richards et al., 2019). In this study, citizens continued to believe that Ebola was a Western-manufactured contagion with suspicious intents as citizens expressed suspicion at the well-funded Ebola response amidst a long history of poor healthcare service delivery in the country. This situation then became fertile ground for the proliferation of conspiracy theories around the origins of Ebola, further complicating prevention efforts by authorities, a situation similar to what has been observed with COVID-19, where various conspiracy theories emerged around its origins, impacting trust in the government's response and subsequent risk perception and adoption of prevention measures (Gagliardone, Diepeveen, Findlay, Olaniran, Pohjonen and Tallam, 2021).

Trust in communication sources is further related to the proliferation of misinformation, disinformation and conspiracy theories, which were rampant at the height of the COVID-19 pandemic.

Misinformation, Disinformation and Conspiracy Theories

Similar to what was observed with other disease outbreaks, misinformation, disinformation and conspiracy theories flourished with COVID-19, further complicating how communities interpreted COVID-19 communication and impacting the subsequent adoption of prevention measures. The COVID-19 landscape was characterised by what has been termed an infodemic, which is described as “a situation in which there is an overwhelming abundance of information, including false, misleading, or unnecessary information, in digital and physical environments during an epidemic” (Ishizumi, Kolis, Abad, Prybilski, Brookmeyer, Voegeli, Wardle and Chiou, 2024:397). This information overload subsequently gives rise to the proliferation of misinformation, disinformation and conspiracy theories that circulate as communities and individuals try to make sense of the evolving and fast-changing information characteristic of the COVID-19 landscape.

The WHO (2024) describes misinformation as “the spread of false information without the intent to mislead” and distinguishes it from disinformation, which “is designed or spread with full knowledge of it being false ... as part of an intention to deceive and cause harm” for reasons related to economics, ideology, religion, politics or in support of a social agenda. Literature shows that there is a direct correlation between misinformation, disinformation and risk perception, with beliefs in misinformation and disinformation associated with low-risk perception and resistance to disease prevention measures (Osuagwu, Miner, Bhattari, Mashige, Oloruntoba, Kwasi Abu, et al., 2021). In addition, misinformation and disinformation can erode trust in scientific information about a pathogen, its causes and effects, further entrenching widespread resistance to disease prevention measures at the community level (Okereke, Ukor, Ngaruiya, Mwansa, Alhaj, Ogunkola, et al, 2020).

The circulation of misinformation and disinformation influences community interpretations of disease, mostly with negative consequences for health decision-making. Similarly, with COVID-19, the infodemic caused by the emergence of a novel pathogen, characterised by the simultaneous information overload, as well as gaps in understanding and information, resulted in the rapid spread of misinformation and disinformation, which was further exacerbated by the simultaneous existence of a range of conspiracy theories, most of which refuted the scientific evidence for the existence of COVID-19 (Govender, 2021). The exploration of local interpretations of COVID-19 communication in this study seeks to unearth the ways in which misinformation and disinformation influenced how communities in the three research sites perceived the threat and risk of COVID-19 and whether this influenced the extent to which they took measures to prevent infections with COVID-19.

Several scholars have explored the phenomenon of misinformation and disinformation in Western and Asian contexts with varied conclusions pertaining to mitigation measures against it (van der Linden, 2022), recommendations for strategies to nullify its negative effects (Ishizumi et al., 2024), advocacy for trust-based communication and transparent and accessible services (Vaezi and Javarnmad, 2020) and explanations of why people are attracted to misinformation, disinformation and conspiracy theories (Douglas, 2021), amongst others. Given that these studies emanate from contexts vastly different from those of the research sites for this study, it may be imprudent to extrapolate relevance from the conclusions these authors draw. It is indeed the thesis of this study that local context influences local interpretations of COVID-19 communication and that perceptions of risk, threat, and self-efficacy inherent

within the study locations directly or indirectly influence the adoption of prevention measures, hence the need for the study. Moreover, in this study, there is recognition of the perils of relying upon evidence generated from contexts that prioritise the individual over the collective, advancing “hegemonic pandemic communication strategies that operationalise the individual as the unit of analysis” (Dutta, 2021:87). Instead, this study acknowledges the influence of the cultural, social and structural context in influencing local interpretations of disease and subsequent health decision-making.

In the African context, some scholars have deliberated on factors predisposing communities to misinformation in rural Africa, suggesting low literacy levels and detachment from communication networks due to poor digital communication infrastructures as possible contributory factors (Okereke et al., 2020). Others have confirmed the prevalence of misinformation in sub-Saharan Africa, highlighting resultant challenges related to lack of compliance to prevention measures and emphasising the importance of addressing misinformation and promoting accurate information to combat the challenges posed by false beliefs in the region (Osugwu et al., 2021). In these studies, geographical location is broadly defined in terms of either the entire African continent or the sub-Saharan region, and there are no empirical studies that qualitatively explore community narratives that expose how misinformation influences risk perception and resultant health decision-making related to COVID-19. In this study, local context is conceptualised at a more granular level within one metropolitan area (eThekweni Municipality), and with comparisons between rural (Umbumbulu), township (Umlazi) and informal settlement (Cato Crest) areas. The assumption is that social, cultural and structural environments influence how communities interpret COVID-19 prevention measures and that beliefs in misinformation and disinformation may differ regarding their content and impact on health behaviour.

In South Africa, there is acknowledgement that rumours, misinformation and disinformation significantly hindered COVID-19 communication efforts despite the measures of social listening put in place to identify and dispel such information (Leburu et al., 2022). There is also equal acknowledgement of the need for “a more agile and targeted approach to risk communication and community engagement” (Moonasar, Pillay, Leonard, Naidoo, Mngemane, Ramkrishna, et al., 2021:4).

Understanding that communication is mediated by language, it is also important to discuss language and its role in influencing community interpretations of disease, particularly COVID-19.

The role of language in local interpretations of illness and disease

The issue of language also plays an important role in influencing how communication is interpreted and subsequent action stemming from these interpretations. Language is the primary medium through which COVID-19 communication is disseminated to communities worldwide by governments, health organisations and media outlets. The choice of language and terminology used in communicating a health crisis influences public perceptions about what is communicated. In South Africa and Lesotho, Kretzer and Pfeiffer (2022) examined challenges facing governments in communicating information about COVID-19 to diverse linguistic communities, the extent to which language policies were inclusive, as well as the application of language policies during the height of the pandemic. This exploration revealed varying levels of language policy application in these two contexts, revealing linguistic inequalities where English dominated the communication landscape despite the linguistically diverse communities in these two countries. It is the interest of this study, therefore, to examine the effect of this linguistic landscape on how communities interpreted and made meaning of government-led COVID-19 communication. Pertinent questions to explore include how language and terminology used in COVID-19 communication influenced local interpretations and how these interpretations, in turn, impacted health decision-making as communities tried to make sense of the unfolding pandemic amid competing cultural and religious frameworks and media framings of the disease.

Several instances of communication inequalities are documented where the dominant use of English in COVID-19 communication, despite the existence of communities who speak other languages, results in minority communities being left out of the COVID-19 communication response (Ortega et al., 2020; Ahmed, 2020, Haimovich and Márquez Mora, 2020). In a scoping review of available evidence on risk and crisis communication during COVID-19 in linguistically and culturally diverse communities, Krystallidou and Braun (2022) highlight challenges faced in providing accurate information on COVID-19, and the role of top-down, bottom-up and hybrid approaches in addressing these challenges. Their analysis indicated that top-down COVID-19 communication, often emanating from governments and other health authorities, failed to convey health messages to linguistically and culturally diverse minorities,

mainly due to the information not being translated into other languages. In addition, these authors highlighted challenges related to insufficient information that addressed challenges related to unique cultural contexts of indigenous populations, resulting in local interpretations that conflicted with the recommended COVID-19 prevention measures. The authors advocated for the availability, accessibility, availability and adaptability of communication products and called for a more inclusive and culturally sensitive approach to risk and crisis communication in diverse communities.

In an exploration of language and language policies during the COVID-19 pandemic in South Africa and Lesotho, Kretzer and Pfeiffer (2022) highlight the lack of translation of COVID-19 communication materials into local languages as an impediment to how communities interpret COVID-19 and the various prevention measures advocated. The authors argue that opportunities to increase the accessibility and appropriateness of COVID-19 information communicated to the public were underutilised, and they advocate for a future pandemic communication response that involves language experts, community leaders and cultural mediators who can work together with official pandemic communicators to ensure risk communication that is accurate, culturally appropriate, and which is relevant to the target audience. As articulated by Ortega, Martínez and Diamond (2020), linguistic barriers can result in unmet communication needs, contributing to health disparities, particularly to racial and/or ethnic minorities.

Further complexity related to language is the use of new, predominantly scientific terminology that comes with pandemic communication. The “internationalised stock phrases” that came with COVID-19 (Ogola, 2020:442), such as ‘COVID-19 waves’, ‘social/physical distancing’, and many others, were reproduced in African countries without any reference to locally understandable concepts, rendering them open to varied local interpretations as people tried to make sense of this pathogen. According to Kretzer and Pfeiffer (2022), complex medical terminology related to health challenges in general and COVID-19 communication, in particular, leads to miscommunication threatening people’s lives.

Therefore, language in health communication transcends concerns about the spoken word only but compels health communicators to appreciate the effect of terminology used in framing illness discourse on how communication is interpreted at community level. The exploration of language dynamics around COVID-19 communication in this study will help to determine what

role it played in influencing local interpretations of COVID-19 communication emanating from the South African government. Such insights are vital in influencing the design and conceptualisation of future pandemic communication efforts, not only for South Africa but also for the global risk communication community of practice. In exploring perceptions of risk, threat and self-efficacy evident in local interpretations of COVID-19 communication in this study, a discussion of communication during a public health emergency is important to start with, as health emergencies present unique challenges of a rapidly evolving information landscape, whilst requiring significant behavioural adjustments amongst populations.

Cultural factors related to COVID-19 prevention

This study foregrounds the influence of cultural context on health decision-making. This is due to the recognition that culture plays a significant role in influencing how individuals and communities interpret information about health and disease and how this influences their subsequent health decision-making (De Vries et al., 2016). The exploration of cultural factors calls for an exploration of the concept of culture to understand various definitions, including the one adopted for this study, as well as to facilitate an understanding of the complexities of the concept and its application in this study.

Culture

Culture is increasingly being realised as an important factor to consider in addressing health issues (Airhihenbuwa and Webster, 2004). There has been a dramatic increase in explorations of how culture impacts interpretations of health and disease, as how it influences health decision-making (Airhihenbuwa, 2007). Earlier conceptualisations of culture as a barrier to overcome in health communication are being increasingly replaced with attempts to centre culture in health decision-making, and to recognise its impact (Iwelunmor et al., 2014). According to Airhihenbuwa (1990), culture refers to shared values and norms that collectively shape a group's beliefs, attitudes and behaviours as they interact with their environments.

This study adopts Obregon and Airhihenbuwa's (2000: 106) conceptualisation of culture as a "collective consciousness of a people often shaped by a shared history, language and psychology". Culture is seen not as something to be overcome, but rather as "the local contexts within which health meanings are constituted and negotiated" (Dutta, 2008:7). Culture, in this sense, then provides a "communicative framework for health meanings" (Dutta, 2008:3), hence

the exploration of positive, neutral and negative aspects of culture that may influence decision-making on COVID-19 in the selected geospatial locations.

Locally situated meanings about health and disease should inform the theorising and practice of health communication (Elers, Tau, Dutta, Elers and Jayan, 2020). Placing local interpretations of health and well-being at the centre of COVID-19 communication ensures a bottom-up communication, inclusive of community voices, and ensures a sustained response (Dutta et al., 2021).

This study explores the role of culture in influencing health decisions made at the individual, family and community level on COVID-19. The positive, indifferent and negative aspects of culture that may impact on people's ability to adopt protective health behaviours are explored to ensure that health interventions are developed not from a negative stance, "but also to promote the good and recognise the unique and indifferent aspects of culture" (Airhihenbuwa & Webster, 2004:7). This allows for the identification and promotion of cultural beliefs and practices that aid the adoption of health behaviours, while avoiding those that serve as barriers.

Cultural influence on disease interpretation

At the onset of the HIV pandemic in the late 1980s, various local interpretations emerged as people tried to make sense of the AIDS pandemic in different parts of the globe. In the Caprivi region in Namibia, for example, Thomas (2008) found that in making sense of the HIV epidemic, community members in this region had generated alternative narratives to explain HIV infection and illness, which reflected their shared cultural understandings and values. Narratives pertaining to witchcraft and religion superseded biomedical explanations of HIV infection and illness with AIDS and were used to explain HIV infection and AIDS. Thomas (2008) argued that these alternative narratives provided useful insights into how people make sense of illness and disease and should not be seen as cultural barriers but should be used as a starting point in initiating dialogue with communities on the epidemic instead of the top-down imposition of the biomedical narrative that prevailed. Equally, in this study, local interpretations of COVID-19 communication are not regarded as barriers but are explored to explicate the positive and existential aspects that can be leveraged to influence positive behaviour change, with the negative barriers identified to reduce their impact on preventive behaviours for COVID-19.

Equally, in Uganda, during the 2012 Ebola outbreak in Kakute village in Ssambwe Parish, north of Kampala, when several members of one family fell sick and died of Ebola, the prevailing belief and interpretation of this occurrence in the Kakute village was that it was due to witchcraft, with the existence of Ebola widely disputed, despite various attempts by aid organisations and government health workers to explain that the cause of these deaths was Ebola (De Vries et al., 2016). Attempts to dismiss the witchcraft narrative in this community through clinical explanations of Ebola disease were futile, with community members holding fast to this belief, which was corroborated through various sources, including a local traditional healer who had pronounced that these deaths were a result of bewitchment. Ebola containment efforts in this community were therefore challenged, as this resistance to accepting the biomedical explanation of the disease meant that community members were unwilling to adjust key behaviours necessary for the prevention of Ebola, most notably around burial rites. This demonstrates that when health authorities fail to consider these local interpretations, communication messages may fail to influence the desired health behaviour change as communities often resist prevention measures advocated based on their own interpretations of disease.

In other instances, narratives and meaning-making around illness and disease are influenced by plurality in belief systems, oftentimes compounded by contradictory perspectives emanating from competing knowledge systems of religion, Western medicine, traditional healing systems, and media narratives. For example, in a three-year ethnographic study conducted in Khayelitsha, a township on the outskirts of Cape Town, South Africa, where Legg and Penn (2013) explored understandings of stroke and aphasia by people living in this community, results showed competing and sometimes contradictory frameworks of understanding of stroke and aphasia that were linked to cultural perspectives and social realities. In this study, causality for illness was linked to pervasive cultural scripts related to supernatural interventions of ancestors who were using illness either as punishment or as a cautionary measure for wrongdoing by those affected, whilst also simultaneously explained through biomedical framings of disease that were oftentimes inaccurate. These authors concluded that the traditional biomedical approach to illness and disease provides only a partial understanding of disease as experiences of illness are “almost certainly entangled in a complex web of social and cultural constructs and structures”, necessitating the need for exploring the cultural context of illness as this provides policy-makers with a deeper understanding of salient issues at play,

and to design communication responses that take into account these cultural and contextual realities into account (Legg and Penn, 2013:140).

The cultural context of illness is an essential consideration in this study, which explores social, cultural and structural factors that impact decision-making around COVID-19. In this study, culture is not regarded as a barrier, but an attempt is made to explore positive, existential and negative aspects inherent in people's cultural belief systems so that those that are negative can be discouraged and those that are positive and existential can be leveraged for better health outcomes in pandemic communication. It has been argued that locally situated meanings about health and disease should inform the theorising and practice of health communication (Elers, Te Tau et al., 2021). In advancing this argument, Dutta et al. (2020) further assert that placing local interpretations of health and well-being at the centre of COVID-19 communication ensures that the communication is bottom-up, inclusive of community voices, and ensures a sustained response.

This, however, can be fraught with challenges in the case of an emerging pandemic, characterised by competing 'knowledges' of various actors such as the church, the state, indigenous knowledge systems and the public, all fighting for legitimacy and hegemony. Indeed, Ogola (2020:440), in a commentary on the early days of COVID-19, argues that Africa, in particular, faces a "double crisis"; that of the pandemic as well as an "information framing crisis". In this commentary, Ogola (2020) asserts that, in the public discourse, the COVID-19 landscape is characterised by a myriad of framings, including political framing by governments, disinformation and misinformation emanating from social media and some religious groupings, and media framings, all of which provide little opportunity for translation of concepts into local vocabularies based on everyday experiences. The proliferation of stories related to 5G technology, alleged African immunity to COVID-19 and information sharing about traditional medicines that treat COVID-19 leads to multiple interpretations that ultimately influence health decision-making related to COVID-19. However, this commentary serves only to sound a warning bell and does not go further to suggest communicative solutions that address this crisis, as this study attempts to do.

The influence of personal and community networks on health behaviour

This study explores the influence of personal and community networks in influencing the adoption of COVID-19 prevention messages. This exploration is in line with the PEN-3 Model that stipulates that friends, family, significant others and community contexts influence individuals' decision-making on health behaviour (Airhihenbuwa, 1995; Iwelunmor et al., 2014; Airhihenbuwa and Webster, 2004). Evidence of this has been observed in other studies as well. For example, in a study to explore culture-centred strategies for addressing the high prevalence of Diabetes amongst African Americans in Michigan, Cowdery, Parker, and Thompson (2010) concluded that family and community networks can play a significant role in addressing health disparities related to Diabetes prevention in this community.

The role of family in health decision-making

In the Mayan community in Guatemala, family members reported feelings of responsibility towards their fellow family members, expressing high levels of willingness to care for family members if they fell sick with AIDS (Dunleavy, Chudnovskaya, Phillips and Mcfarlane, 2018). The family, in this case, was considered a positive nurturer in terms of HIV and AIDS care and support. Additionally, in responding to the HIV epidemic, evidence in Uganda showed that family support and coherence played a crucial role in ensuring adherence to HIV treatment for adolescents living with HIV (Damulira, Mukasa, Byansi, Nabunya, Kivumbi, Namatovu, et al., 2019). The same phenomenon was observed in South Africa, where evidence suggests that family support played a crucial role in caring for and supporting those who were infected with HIV, particularly those who needed home-based care when sick with AIDS (Brown, BeLue, and Airhihenbuwa, 2010).

Recent literature has highlighted the family unit as “an unparalleled player for maintaining health and preventing disease for public health because members may support and nurture one another through life stages and over time” (Barnes, Hanson, Novilla, Magnusson, Crandall and Bradford, 2020:2). According to the authors of this study, family members can protect, nurture, care, teach and influence each other with regards to issues of health, making the family an important entry point for health promotion directed towards individuals and communities.

Studies conducted in the context of the COVID-19 pandemic also show a positive correlation between family support and adherence to COVID-19 prevention measures (Wong, Wai, Zhao, Yip, Wong, Wang, et al., 2020); Adebisi, Donga, Omukunyi, and Roman, 2022). Whilst there were several studies that explored the positive and negative effects of the COVID-19 pandemic on the family (October, Petersen, Adebisi, Rich and Roman, 2022; Campbell, 2020; Adebisi, Roman, Chinyakata and Balogun, 2021), not enough attention was paid to the role that the family can play in mitigating against negative COVID-19 outcomes within the family unit, presenting a gap in the literature.

In this study, the family is explored for its role in influencing health decision-making related to COVID-19, and the role of the family is explored for its positive, existential and negative attributes in influencing COVID-19 health decisions. One of the research sites for this study is a rural area, Umbumbulu, where traditional leadership structures are significant players with considerable influence on community norms. It is, therefore, essential to explore traditional leaders' role in influencing decision-making at the community level and their possible role in COVID-19 mitigation strategies.

Traditional leadership structures and their role in health decision-making

A study on political will, traditional leaders, and the fight against HIV/AIDS (Campbell, 2010) in a South African rural village showed that the traditional leader had a significant influence on community values and behaviour related to HIV in this village. A similar finding was made in a Zimbabwean study exploring the role of traditional leaders in combating the spread of HIV in rural communities there, where traditional leaders were found to influence minimising the spread of HIV in their jurisdictions (Marashe, 2014). Additionally, a study conducted in Sierra Leone during the 2014-2015 Ebola outbreak showed that traditional leaders played an important role in curbing the spread of Ebola in their jurisdictions (van der Windt and Voors, 2020).

The involvement of traditional leaders in COVID-19 mitigation strategies was also explored in several studies, with findings showing that the traditional leadership institution is an important link between health service providers and rural communities in pandemic prevention and should, therefore be integrated into overall prevention strategies for COVID-19 (Dziva, 2020;

Grieco, 2020). In South Africa, Bhuda, Marumo and Motsoaledi (2021) revealed that in some parts of the country, traditional leaders had played a significant role in enforcing the observance of COVID-19 precautions in their communities and ensuring that activities such as traditional male initiation were suspended to protect citizens from infection with COVID-19.

However, no empirical studies in the South African context explored community perceptions of the role of traditional leaders in COVID-19 prevention and control. In examining personal and community networks that influence the adoption of COVID-19 prevention measures, it is vital to explore the positive, existential, and negative roles that traditional leaders play to establish the extent to which they can influence risk perceptions at the community level and enhance the adoption of prevention measures.

Conclusion

This chapter presented a review of the literature for this study, according to the research questions for the study. The complexities of communicating during a public health emergency have been discussed, and the application of RCCE in this study has been elucidated, with key explanations provided for the concepts of risk communication and community engagement, highlighting the importance of the participatory engagement of communities in risk communication. The chapter has additionally presented a review of the literature pertaining to social, cultural, and structural factors and has highlighted how localized interpretations of disease influence perceptions of risk and self-efficacy, which, in turn, influences health decision-making.

Drawing from experiences with Ebola, HIV, stroke, aphasia and other diseases, the chapter has demonstrated how biomedical explanations of disease are oftentimes incongruent with local interpretations by communities and how this impacts subsequent health behaviour. The argument has been advanced of the need to recognise these localised interpretations into account in formulating communicative responses to disease, in particular pandemics such as COVID-19.

Social and structural factors that influence decision-making related to COVID-19 that have been discussed in this chapter include risk perception, trust in communication source, misinformation, disinformation, conspiracy theories and language. These have been discussed

to demonstrate their influence on COVID-19 decision-making and to highlight how a localised, community-engaged COVID-19 communication response is necessary to ensure increased participation by communities. Culture as a key consideration in pandemic communication has also been highlighted as a key factor that must be considered in advancing a participatory COVID-19 communication response. Various examples of how ignoring the cultural context in past pandemics and epidemics has resulted in resistance by communities to adopt the recommended prevention measures were provided, highlighting the need for a culture-centred approach to pandemic risk communication.

The social influence of family and traditional leadership structures was also discussed in this chapter, highlighting the significant role of these structures in influencing COVID-19 decision-making. The argument was made that these are important institutions that play a significant role in health decision-making, and which should be considered for their positive influence on health behaviour.

The next chapter presents the Theoretical Framework for this study, which is the PEN-3 Model.

CHAPTER THREE

THEORETICAL FRAMEWORK

Introduction

This chapter presents the theoretical underpinnings that frame this study. The study is premised on the understanding that meaning-making around illness and disease is socially and culturally grounded, resulting in localized interpretations of health messages, in this case, COVID-19 messaging. These localized interpretations then influence communities' perceptions of risk, threat, and self-efficacy, impacting the adoption of COVID-19 preventive measures promoted by communication planners. The study emphasizes the mediating role of the socio-cultural and structural context in influencing meaning-making, risk perception, and resultant health decision-making concerning COVID-19. In exploring the above factors in this study, the aim is to establish acceptable and feasible pathways for developing locally relevant COVID-19 prevention messages derived from genuine engagement with communities in democratic communicative processes that amplify community voices in providing solutions.

The PEN-3 Cultural Model (Airhihenbuwa, 1989) is adopted to frame the study theoretically based on its emphasis on context rather than the individual. The Pen-3 Cultural Model was developed by Collins Airhihenbuwa in 1989 to guide a cultural approach to HIV and AIDS communication in Africa (Airhihenbuwa and Webster, 2004). It is a “framework based on African ways of knowing,” which locates “human experience within African cultural logic” and is informed by “the need to debunk Westernized theorizing about African health issues” (Airhihenbuwa, 2007:36). The model is based on a school of thought that rejects the “dominant paradigm” that is based on what Obregon and Waisbord (2014:18) term a “narrow understanding of both communication and health” and which “carries specific theoretical and epistemological premises that are problematic for studying the rich and complex relation between communication and global health”. The PEN-3 Model, therefore, aims to “deconstruct conventional assumptions and theories that have been used to frame public health problems and solutions in Africa” (Airhihenbuwa, 2007:31) through the foregrounding of positive aspects inherent in a people's culture, in contrast to the negative framing of culture common in Western-centric forms of theorizing.

In theorizing about health communication, Airhihenbuwa (2007) asserts that the imposition of non-African solutions on African identity with impunity needs to be challenged. He is careful, though, to caution that he is not only proposing African solutions to African problems but is rather advocating for “locally grounded modes of addressing and framing problems, regardless of their geocultural locations” (Airhihenbuwa, 2007:32). Indeed, his PEN-3 Model has been applied with success in varied geocultural locations (Erwin, Treviño, Saad-Harfouche, Rodriguez, Gage and Jandorf, 2010; Beech and Scarinci, 2003; Mathews, Sanchez-Johnsen and King, 2009; Saulsberry et al, 2013; Grace, Begum, Subhani, Kopelman and Greenhalgh, 2008; Okoror, Belue, Zungu, Adam and Airhihenbuwa, 2012; Okoror, Airhihenbuwa, Zungu, Makofani, Brown and Iwelunmor, 2007; Petros, Airhihenbuwa, Simbayi, Ramlagan, and Brown, 2006).

Drawing from Chinua Achebe (1988), who once wrote that “no man should enter his house through another man’s gate”, Airhihenbuwa insists that African scholarship should begin with the local culture to achieve global relevance (Airhihenbuwa, 2007:33). He aligns himself with Mudimbe’s (1988) concept of “epistemological vigilance” which refers to “the need to critically examine the assumptions that inform the theoretical question” (Airhihenbuwa, 2007:33). Questioning the question for Airhihenbuwa means rejecting the theoretical question that seeks to identify flaws or barriers in the cultural context and embracing theorizing that explores positive aspects of the cultural context, which can be leveraged for positive health outcomes at community level.

The exploration of positive, existential, and negative perceptions and enablers that influence decision-making around COVID-19 prevention in this study is predicated on this epistemological grounding. With the inclination of African governments to adopt Western-informed COVID-19 prevention and control measures of physical distancing through lockdowns, including various other restrictions that were placed on burial rites and procedures, this study investigates alternative ways of communicating during a pandemic, which open dialogic spaces for communities to engage meaningfully in identifying challenges and proposing locally-relevant solutions to them.

Based on this understanding, this chapter presents an exposition of the PEN-3 Cultural Model, detailing its epistemological foundations, basic theoretical constructs, how it has been applied in previous studies, and its relation to the research questions for this study.

The PEN-3 Cultural Model

The PEN-3 Cultural Model foregrounds the importance of “culturally appropriate and compelling strategies for behaviour change” through an understanding that goes beyond individual-level factors but extends to the relevance of “cultural norms including conditions in which people live, grow, eat and die” (Iwelunmor, Newsome and Airhhenbuwa, 2014:10). This theoretical grounding negates the ‘culture-as-barrier’ bias but instead locates culture as central in determining individual, family and community health by investigating positive, neutral, and negative impacts of culture on health behaviour. Framed as “a cultural model that addresses the health behaviour of African collectives rather than their individuality” (Airhihenbuwa and Webster, 2004:6), the PEN-3 Cultural Model explores the impact of culture on health beliefs and actions and proposes a focus on cultural context that involves the individual, their family and community in health communication and health promotion research and practice. When it was first conceived, the PEN-3 Model had three theoretical constructs or dimensions, which were (a) Health Beliefs and Behaviours, (b) Health Education, Educational Diagnosis of Health Behaviour, and (c) Cultural Appropriateness of Health Behaviour. The Model was later revised as presented in Figure 3.1., and as applied in this study.

The PEN-3 Cultural Model consists of three inter-related domains that shape health-related behaviours and decisions: (1) *Cultural Identity*, (2) *Relationships and Expectations*, and (3) *Cultural Empowerment* (Airhihenbuwa and Webster, 2004), as can be seen in Figure 4. Each of these three domains, in turn, has three components that form the acronym – PEN (Iwelunmor *et al*, 2014). The three components embedded within the *Relationships and Expectations* domain are *perception, enablers and nurturers*, and the *Cultural Empowerment* domain explores *positive, existential or negative* health behaviours that should either be encouraged or discouraged, while the *Cultural Identity* domain explores *person, extended family and neighbourhood* factors that impact on health behaviour (Airhihenbuwa, 1990).

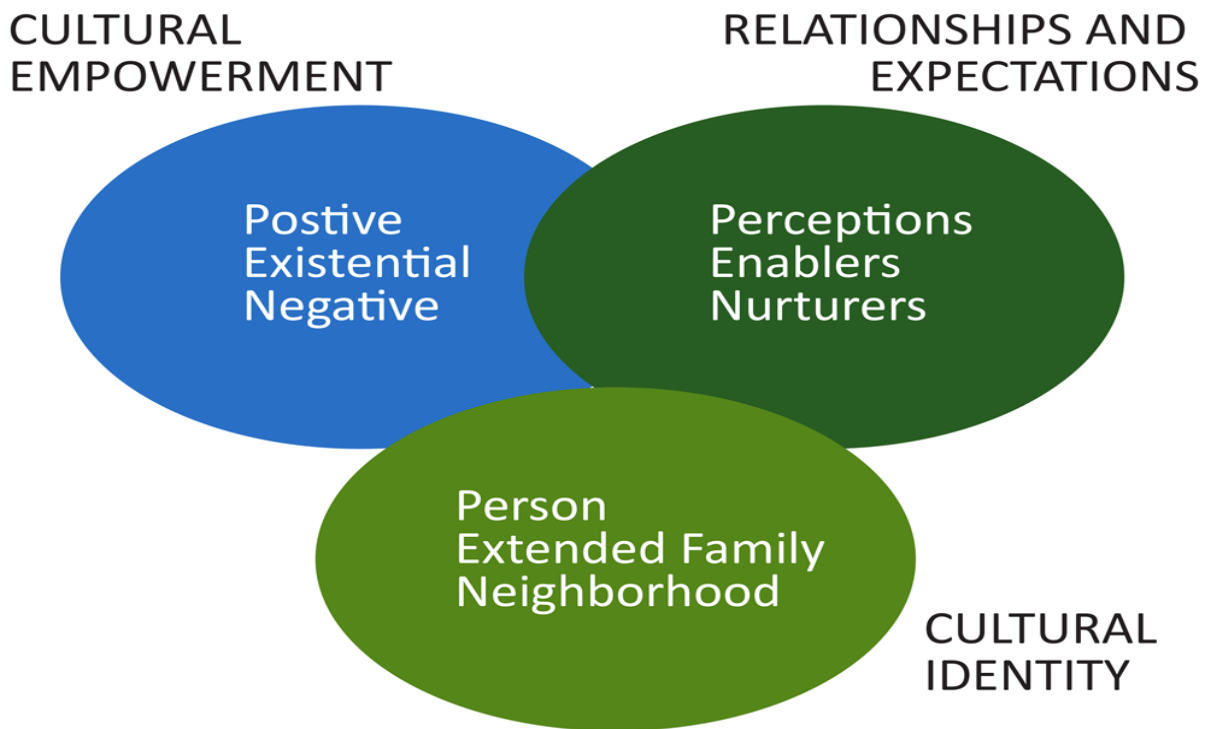


Figure 3.1 - The PEN-3 Cultural Model (Airhihenbuwa et al., 2020)

The application of the PEN-3 Cultural Model

The PEN-3 Cultural Model is applied in two main stages: (1) assessment and (2) intervention. The two domains of *Relationships and Expectations* and *Cultural Empowerment* are applied as assessment domains. In the assessment phase, the two domains and their corresponding three components are crossed to generate a nine-cell matrix which is used to generate nine instruments: positive perceptions, enablers and nurturers; existential perceptions, enablers and nurturers; and negative perceptions, enablers and nurturers, as indicated in Table 3.1. These instruments are then applied in a participatory process with communities to identify attitudes and cultural beliefs that impact on health behaviour and decision-making (Dunleavy, Chudnovskaya, Phillips and McFarlane, 2018).

THE PEN-3 CULTURAL MODEL NINE-CELL MATRIX

Cultural Empowerment Domain →	POSITIVE	EXISTENTIAL	NEGATIVE
Relationships and Expectations Domain ↓			
Perceptions	Theory: Positive perceptions: <i>knowledge, attitudes, beliefs and values within a cultural context that positively influence decisions about COVID-19 prevention, care and support.</i>	Theory: Existential perceptions: <i>knowledge, attitudes and beliefs that influence decisions about COVID-19 prevention that could be described as unique to that culture/context.</i>	Theory: Negative perceptions: <i>knowledge, attitudes, beliefs that negatively influence decisions about COVID-19 prevention, care and support.</i>
Enablers	Theory: Positive enablers: <i>Availability, accessibility, acceptability and affordability of resources needed to support preventive behaviour.</i>	Theory: Existential enablers: <i>availability, accessibility, acceptability and affordability of resources that are traditionally available in the community to support prevention.</i>	Theory: Negative enablers: <i>lack of available, accessible, acceptable and affordable resources needed to promote positive preventive COVID-19 decisions and actions.</i>
Nurturers	Theory: Positive nurturers: <i>friends, family, community members with a positive influence on health decision-making regarding COVID-19.</i>	Theory: Existential nurturers: <i>influence of significant others and community contexts in making health decisions and choices within certain traditional values and practices.</i>	Theory: Negative nurturers: <i>influence of significant others and community contexts in negatively shaping health decisions and choices that contribute to the spread of COVID-19.</i>

Table 3.1 - A nine-cell matrix representing the Cultural Empowerment and Relationships and Expectations domains of the PEN-3 Cultural Model and its applicability to COVID-19 communication. (Dunleavy, Chudnovskaya, Phillips and McFarlane, 2018).

The *Cultural Identity* domain is applied in the second stage to determine the point of entry for health behavioural interventions, where researchers share their findings with the research participants, and endeavour to determine and identify the point of entry for the researched

health intervention (Airhihenbuwa, Okoror, Shefer, Brown, Iwelunmor, Smith, Adam, Simbayi, Zungu, Dlakulu, and Shisana, 2009). In this way then, the PEN-3 Cultural Model offers “a strategy for organising and analysing complex and interlocking spheres of cultural identity and health behaviour” (Airhihenbuwa et al, 2009:4) and locates cultural meanings as central in both understanding factors that impact on health behaviours in social and cultural contexts, and in formulating culture-centred health intervention strategies with communities.

Application of the PEN-3 Model in other studies

The PEN-3 Cultural model has been applied in different ways by researchers and behavioural health practitioners. This model has been widely used in various contexts to frame health communicated-related research on cancer (Erwin, Treviño, Saad-Harfouche, Rodriquez, Gage and Jandorf, 2010), smoking (Beech and Scarinci, 2003; Matthews, Sanchez-Johnsen and King, 2009; Scarinci et al., 2007), depression (Saulsberry et al, 2013), diabetes (Grace, Begum, Subhani, Kopelman and Greenhalgh, 2008) and HIV (Okoror, Belue, Zungu, Adam and Airhihenbuwa, 2012; Okoror, Airhihenbuwa, Zungu, Makofani, Brown and Iwelunmor, 2007; Petros, Airhihenbuwa, Simbayi, Ramlagan, and Brown, 2006).

Some studies have applied the PEN-3 Cultural model as a theoretical framework. For example, in the United States, the PEN-3 Cultural Model was applied as a theoretical framework to assess cultural factors that influence Human Papilloma Virus (HPV) vaccine acceptability amongst African American female college students (Bynum, Brandt, Annang, Friedman, Tanner and Sharpe, 2012). Similarly, a study with the Bangladeshi community in a socioeconomically deprived area in the United Kingdom (UK) applied the model as a theoretical framework to understand cultural and religious beliefs and perceptions related to diabetes prevention (Grace, Begum, Subhani, Kopelman and Greenhalgh, 2008). Both studies concluded that adopting a cultural lens to communication on these health issues is an important step in informing programme development for health communication campaigns that are relevant to specific communities.

Other studies have applied the PEN-3 Cultural Model to guide data collection, analysis and interpretation. A study with Latinas in New York City employed the use of the model to guide data analysis for a cancer control intervention and concluded that PEN-3 is a useful framework to interpret and transform qualitative data into interventions that address specific cultural, gender and religious perspectives and experiences of Latina immigrant women in the United

States (Erwin et al, 2010). In order to address HIV prevention in rural Guatemala, the PEN-3 Cultural model guided data collection in a community engagement process to identify cultural factors that impact on HIV prevention behaviours and to identify intervention entry points that would enhance cultural acceptance and efficacy in the community (Dunleavy, Chudnovskaya, Phillips and McFarlane, 2018).

There have also been differences in the application of the PEN-3 Cultural Model with regards to its three domains, with some studies applying one, some two and some all three domains of the model. In a study to examine whether cultural and personal identity variables are associated with socio-economic and health lifestyle in African Americans in Washington DC, Airhihenbuwa, Kumanyika, TenHave and Morssink (2000) applied the *Cultural Identity* domain only to identify aspects of cultural identity that impact positively on participants' health-protective behaviours. Similarly, in another study, Iwelunmor, Zungu and Airhihenbuwa (2010) applied the *Cultural Empowerment* domain only to explore HIV disclosure in the context of motherhood amongst South African women.

Other studies have applied what is called cross-tabulation, where the two domains of *Cultural Empowerment* and *Relationships and Expectations* are cross-tabulated in a nine-cell matrix and applied in the assessment phase of community engagement processes. In the study by Dunleavy et al. (2018), all three domains of the PEN-3 Cultural model were applied, with the cross-tabulation forming the assessment phase of engaging Guatemalan communities for HIV prevention, and the *Cultural Identity* domain being applied to determine culturally relevant entry points for a communication campaign on HIV prevention. Similarly, Greene, Dlamini, D'Errico, Ruark and Duby (2009) applied all three domains of the model to explore cultural patterns and ways of working with traditional leaders in HIV prevention efforts in Botswana, Lesotho, South Africa and Swaziland.

Further variations in the application of the PEN-3 Cultural Model have been observed, with a study to explore the effects of a radio entertainment programme on HIV/AIDS in Tanzania only applying the *Nurturers* component of the *Relationships and Expectations* domain in a cross-tabulated matrix with the *Cultural Empowerment* domain (Olufowote, 2021). While this study elucidated important findings with regard to the interplay of positive, existential and negative nurturers from a cultural perspective, the author cautioned against this narrow application of the PEN-3 Cultural Model in this study and recommended that future studies

should explore all PEN-3 Cultural Model domains for richer and more comprehensive insights into the role of culture in influencing perceptions and efficacy beliefs of communities in health communication interventions (Oluwofote, 2021).

Application of the PEN-3 Model in this study

In this study, the PEN-3 Cultural model is being applied as a theoretical lens through which to investigate the research questions for the study, and as an analytic frame to guide data collection and analysis. All three domains of the model are applied in a two-phase process. While Airhihenbuwa and Webster (2004) name the two phases of the model as (1) the assessment phase and (2) the intervention phase, in this study these are renamed (1) the community engagement phase and (2) the risk communication phase. This is done to ground the study in Risk Communication and Community Engagement (RCCE), and to explore the utility of the PEN-3 Cultural model in advancing culture-centred RCCE that creates “spaces and opportunities for those who live in the community to have their voices heard in naming the problem and offering solutions to the problems they face” (Airhihenbuwa, Iwelunmor, Munodawafa, Ford, Oni, Agyemang et al., 2020:1). Furthermore, in a study exploring the impact of HIV and AIDS-related stigma in Cape Town, South Africa, Brown, BeLue and Airhihenbuwa (2010:445) assert that “community engagement is critical to the application of the PEN-3”. Phase 1 in this study therefore provides an opportunity for communities to name the problem, while phase 2 provides an opportunity for communities to provide solutions to the problems they face in relation to COVID-19 communication.

In the *Community Engagement* phase, the first 3 research questions of the study are explored using the nine-cell matrix involving the two domains of *Cultural Empowerment* and *Relationships and Expectations* (Table 3.2). In investigating perceptions of risk, threat, and self-efficacy evident in local interpretations of COVID-19 communication, *positive, existential, and negative perceptions* are explored. To explore social, structural, and cultural factors that influence decision-making around COVID-19, *positive, existential, and negative enablers* are investigated in all three communities that are the focus of this study. This study further explores how personal and community networks influence the adoption of the dominant COVID-19 communication and *positive, existential and negative nurturers* are investigated with research participants in this regard.

DOMAIN	POSITIVE	EXISTENTIAL	NEGATIVE
Perceptions RQ1 What are the perceptions of risk, threat and self-efficacy evident in local interpretations of the dominant mainstream preventive messages in the three research sites?	Positive perceptions: <i>knowledge, attitudes, beliefs and values within a cultural context serving as motivators/inhibitors of group behavioural change</i>	Existential perceptions: <i>knowledge, attitudes and beliefs that influence decisions about COVID-19 prevention that could be described as unique to that culture/context</i>	Negative perceptions: <i>knowledge, attitudes, beliefs that negatively influence decisions about COVID-19 prevention</i>
Enablers RQ2 What are the social, structural and cultural factors that influence decision-making around COVID-19?	Positive enablers: <i>local interpretations/metaphors that positively influence health decisions</i>	Existential enablers: <i>local interpretations embedded in cultural beliefs, practices and behaviours that are neutral and have no harmful effects</i>	Negative enablers: <i>local interpretations based on values, beliefs and attitudes known to be counter COVID-19 prevention.</i>
Nurturers RQ3 How do personal and community networks influence the adoption of the dominant COVID-19 prevention messages?	Positive nurturers: <i>friends, family, community members with a positive influence on health decision-making regarding COVID-19.</i>	Existential nurturers: <i>influence of significant others and community contexts in making health decisions and choices within certain traditional values and practices.</i>	Negative nurturers: <i>influence of significant others and community contexts in negatively shaping health decisions and choices that contribute to the spread of COVID-19.</i>

Table 3.2 - Link between the research questions and the PEN-3 Model as the analytic frame

The third domain of *Cultural Identity* is applied to explore acceptable and feasible pathways for the development of locally and culturally relevant COVID-19 communication. This is the *Risk Communication* phase of the application of the PEN-3 Cultural model, where researchers return to the community where data for the first phase was generated, to share findings, and collectively work with communities to identify communication solutions that “identify those cultural influences that are beneficial and should be encouraged, acknowledging those that are harmless, and then tackling those processes that are harmful” (Iwelunmor et al., 2014: 10). In a systematic review exploring the application of the PEN-3 Cultural model in various studies, Iwelunmor et al. (2014) assert that this is the most crucial phase of the PEN-3 Cultural model, but which most studies either neglect or do not report on. This study further aims to fill this gap.

The above provides a broad explanation of applying the PEN-3 Cultural model in other studies, and particularly in this study. However, a detailed understanding of each of the domains of the model is required to further elucidate the model and its theoretical application in this study. Each domain will be explained in more detail, and its relevance to this study made explicit in the next section.

The Cultural Empowerment Domain

According to Airhihenbuwa and Webster (2004), the domain of cultural empowerment explores the good, indifferent and negative aspects of culture that may impact people's ability to adopt protective health behaviours. An exploration of this continuum of positive, neutral, and negative aspects of culture ensures that health interventions are developed not with the bad in mind, "but also to promote the good and recognize the unique and indifferent aspects of culture" (Airhihenbuwa and Webster, 2004:7). This allows for the identification and promotion of cultural beliefs and practices that aid the adoption of health behaviours, while avoiding those that serve as barriers. This theoretical construct explores two "continuously evolving concepts" (Servaes and Verschooten, 2008:45): culture and empowerment, which will be explored in further detail in the next sections. The concept of culture has been discussed in detail in Chapter Two. Therefore, only the concept of 'empowerment' will be discussed in more detail here.

Empowerment

For Airhihenbuwa (1999), the concept of empowerment holds different meanings for different scholars based on context, scholarly discipline, and other factors, rendering it difficult to define. The concept of empowerment is said to have emerged in the 1960s and 70s as a term rooted in social action to achieve power and autonomy for oppressed groups in civil rights and democratization movements in South America, South Africa, and the United States of America, amongst others (Halvorsen, Dihle, Hansen, Nordhaug, Jerpseth, Tveiten, Joranger and Knutsen, 2020). Empowerment is closely connected to the concepts of power and participation and draws attention to individuals' and communities' rights, capabilities, and abilities to exercise control over their own lives (Tengland, 2008).

The conceptualization of empowerment as "the process of enabling or imparting power transfer from one individual or group to another" (Rodwell, 1996:306) is seen as problematic as it suggests a linear process where enlightened professionals transfer power to the disenfranchised

(Airhihenbuwa, 1999). As a result, Airhihenbuwa (1999) rejects the conceptualization of empowerment, which assumes that the disenfranchised are to be taught about power acquisition by intervention planners, and instead argues that the basis of cultural empowerment is raising critical consciousness through dialogue and collective engagement, as advanced by Paulo Freire (2020). The aim of this dialogic and collective engagement process, he argues, should be “to politicize and remove the veil from contextual elements and structures that are responsible for the disenfranchised state” (Airhihenbuwa, 1999:271). The concept of self-empowerment, therefore, as borrowed from the field of psychology, is rejected as it inherently assumes an individual focus that is blind to the environmental constraints that may be out of individuals’ control.

Cultural empowerment, therefore, places emphasis on the totality of the context that influences behaviour instead of the conventional Western-centric theorizing that focuses on the limitations of individuals devoid of contextual considerations. In this study, the *Cultural Empowerment* domain allows for exploring social, cultural, and structural factors that influence meaning-making and subsequent decision-making concerning COVID-19, which is the second research question for this study. Premised on the fact that “every culture has something positive that must be recognized and promoted”, the *Cultural Empowerment* domain places emphasis on starting with the positive aspects inherent in the social, cultural, and structural environment in a strengths-based approach that prioritizes positive community assets that can aid health promotion efforts, before exploring existential and negative aspects inherent in a people’s culture (Airhihenbuwa, 1999:271). The *Cultural Empowerment* domain’s three components are *positive*, *existential*, and *negative* cultural practices, each of which will be discussed in the next section.

Positive factors

This refers to “values and relationships that promote the health behaviour of interest” (Airhihenbuwa and Webster, 2004:8). This focus on positive aspects of a culture is premised upon the notion that previous health communication efforts have pitted culture against positive health outcomes, suggesting that a people’s culture is an impediment to be overcome in health communication efforts (Airhihenbuwa and Dutta, 2012). The exploration of positive aspects that promote health and well-being in communities is not new and has been the focus in other fields of study, such as *Positive Psychology* in the field of psychology, which encouraged a redirection of focus from negative aspects of individuals to positive personal attributes that can

be harnessed to improve overall health (Seligman and Csikszentmihalyi, 2000). However, this theory places emphasis on individual characteristics and does not factor in community-wide cultural beliefs and practices that can positively influence health behaviour.

Asset-based approaches in the field of public health similarly place emphasis on identifying factors that are protective in addressing community health and wellbeing (McLean, 2011). This approach recognizes that the ‘deficits’ approach to public health service delivery does not yield the desired results and that quality of life and longevity can be enhanced by promoting inherent capabilities within individuals and communities. While asset-based approaches consider individual and community strengths, they emphasize skills, knowledge, and connections and pay less attention to cultural practices and beliefs that may impact health and well-being positively. In the PEN-3 Cultural Model, the positive aspect of the *Cultural Empowerment* domain opens “space for researchers to discuss behaviour and culture from a positive perspective” while allowing for the reframing of negative aspects of culture “to develop culturally congruent explanations and culturally relevant interventions for health” (Iwelunmor et al., 2014:8). As Airhihenbuwa, Iwelunmor, Munodawafa, Ford and Agyemang (2020:4) assert, “COVID-19 communication should begin with positive factors such as persistence and resilience to achieve solutions that nurture and revive the community”. In this study, positive perceptions of COVID-19 communication and perceived self-efficacy to adopt prevention behaviours are explored to establish how they influence subsequent decision-making around COVID-19.

Existential factors

Existential factors are defined as “values and beliefs that are practised in the culture but pose no threat to health” (Airhihenbuwa and Webster, 2004:8). Providing a rationale for the focus on existential factors, Airhihenbuwa (1990) argues that some practices and/or behaviours may be unfamiliar but have no harmful health consequences. He argues that these should, therefore, be acknowledged without trying to change them. In a study exploring stigma directed at people living with HIV (PLHIV) in Cape Town, South Africa, Brown et al (2010) concluded that community members, including counsellors and social workers, who step in to fill in the role of a family member provided an extra layer of support and security for PLHIV and could be regarded as an existential enabler for disclosure of their positive HIV status to the family.

Airhihenbuwa (1999:272) argues that existential cultural qualities are not neutral but are better seen as unique, as “every aspect of a culture is active.” For example, the oral tradition is an existential feature in most African cultural contexts that is often overlooked by health communication campaigns that emphasize the written word through posters, billboards, pamphlets, and other visual materials. Intervention planners who are cognisant of the oral tradition as an existential factor in this context, in this instance, would need to adapt their communication methods to suit the existential nature of the cultural context within which they are applied. This study explores existential factors that influence perceptions of risk, threat, and self-efficacy to determine how they impact the adoption of dominant COVID-19 messages in the three research sites for the study.

Negative Factors

While advocating for the exploration of positive cultural factors that may have an impact on the adoption of health behaviours, there is acknowledgment within the PEN-3 Cultural Model that some values and relationships have a negative impact on the adoption of health behaviours and should therefore be discouraged or changed (Airhihenbuwa, 1990). In a study to understand cultural factors that impact HIV prevention in rural Guatemala (Dunleavy et al., 2018), high poverty levels, stigma, and fatalistic attitudes towards HIV infection were identified as factors that negatively impacted health decision-making related to HIV prevention. The exploration and subsequent identification of these negative factors enabled intervention planners and the Guatemalan community to address them in a participatory process where community voices played a central role in determining solutions to overcome the negative aspects identified.

According to Airhihenbuwa and Webster (2004), additional factors that may negatively affect health decision-making can include racism, unequal distribution of resources such as education and housing, and political leadership dynamics that may privilege some groups of people over others. In other words, while some negative factors are related to individual and sometimes communal attitudes and values, some are situated within broader socio-political systems at play within communities. Regardless of the nature and effect of such negative factors, the PEN-3 model advocates for “community-centered strategies” that explore perceptions and address structural factors that may negatively impact health decision-making (Airhihenbuwa et al., 2020).

In this study, both negative attitudes and values, as well as negative structural factors related to each of the research sites, are explored for their impact on decision-making related to COVID-19 prevention.

The Relationships and Expectations Domain

The *Relationships and Expectations* domain explores *perceptions, enablers, and nurturers*. Like conventional individual-based models of behaviour change, which focus on perceptions, resources, and the influence of family and friends in making health-related decisions, this domain of the PEN-3 cultural model explores the same characteristics but with a focus on how these characteristics are defined by culture and influenced by context (Airhihenbuwa and Webster, 2004).

Perceptions

Perceptions are defined as “knowledge, beliefs and values in decision making that are focused on either individuals or groups, or the complementarity of emotion and rational cues to behavioural actions” (Airhihenbuwa and Webster, 2004; 7). Individual and community perceptions of a health phenomenon are considered important in influencing whether health behaviours will be adopted or not (Renner, Schupp, Vollman, Hartung, Schmalzle and Panzer, 2009).

During the 2018-2020 Ebola epidemic in the Democratic Republic of Congo (DRC), research indicated that insufficient knowledge about the outbreak and the government response to it, doubts that Ebola was real and concerns about the Ebola vaccination programme resulted in lack of adoption of Ebola prevention measures at community level (Earle-Richardson, Erlach, Walz, Baggio, Kurnit, Camara, Craig, Dios, Yee, Soke, Voahary and Prue, 2020). However, in the same study, when community engagement approaches were revised and these negative perceptions were addressed, it was found that community perceptions changed, and there was more acceptance of Ebola prevention measures.

It must be emphasized that perceptions, as they pertain to this theoretical construct of the PEN-3 Cultural Model, do not necessarily refer to risk perceptions but rather individual and community perceptions of the contagion and related communication about it. These perceptions can influence how communities interpret and localize health messages related to a health contagion, in this case, COVID-19. This study explores perceptions in the three research

sites to reveal those positive perceptions that need to be promoted to ensure positive health outcomes, existential perceptions that may either aid or impede prevention efforts and negative perceptions that must be discouraged.

Similarly, in this study, individual and community perceptions of COVID-19 are explored to determine their impact on health behaviour related to COVID-19, and to establish ways in which these perceptions can be addressed in a participatory community engagement process with communities.

Enablers

Enablers are referred to as “resources and institutional support, socio-economic status, wealth ... as a measure of resources and power, and costs and availability of services such as drugs for treatment” (Airhihenbuwa and Webster, 2014). Enablers can also be referred to as “societal, systematic or structural influences that may enhance or create barriers to maintain or change these health/illness beliefs and practices” (Erwin et al, 2010). The availability and accessibility of HIV treatment, for example, can be regarded as an enabling factor that promotes the uptake of ARVs by HIV positive individuals. In Guatemala, for example, mandatory HIV testing for pregnant women, widespread promotion of HIV testing, as well as the promotion and free distribution of condoms were considered enablers for communities to be able to adopt HIV prevention measures (Dunleavy et al., 2018).

Interestingly, however, some institutions can possess both positive and negative components in terms of how they affect the adoption of health behaviours. A study with Latinas in New York City established that the Church acted both as an enabler and disabler of positive health behaviour adoption as it was sometimes a resource for education and awareness on cancer prevention for women, while in other instances it promoted a discourse that illness was punishment for sins (Erwin et al., 2018).

This study seeks to explore positive, existential, and negative enabling factors in the three communities with the aim of establishing how this aspect impacts the adoption of COVID-19 prevention behaviours by communities.

Nurturers

Nurturers have been described as “supportive and/or discouraging influences of families and friends including eating tradition, community and events, spirituality and soul, values of friends (e.g., alcohol consumption), and marriage rules and expectations” (Airhihenbuwa and Webster, 2014). In a study to explore knowledge, beliefs, and attitudes towards Type 2 Diabetes amongst Mexican American and Mexican Native men and women in North Texas in the United States of America, the authors (Melanchon, Oomen-Early and del Rincon, 2007) found widespread lack of family support and stigmatisation of people with Type 2 Diabetes and recommended that a diversity of people within the community be recruited to deliver educational programmes in the community. They believed that training already influential people in the community would lead to increased knowledge levels in the community and serve to counteract negative views held by community members. Similarly, in HIV programming practice in South Africa, it was found that the culture of caring for the sick at home was a positive nurturer for the adoption of home-based care programmes for those with full-blown AIDS (Airhihenbuwa and Webster, 2014).

To answer the third research question for this study, which explores how personal and community networks influence the adoption of the dominant COVID-19 prevention messages, this study investigates positive, existential, and negative nurturers to establish their impact on adopting COVID-19 communication in the three research sites for the study.

The Cultural Identity Domain

The Cultural Identity domain explores *person*, *extended family*, and *neighbourhood*. The exploration of *person* focuses on the one person that influences health decisions; *extended family* explores how the extended family and kinship ties influence health decision-making, and *neighbourhood* explores how the social context and communally held values shape health decision-making within a given context (Brown, BeLue and Airhihenbuwa, 2010). This exploration of person, extended family and neighbourhood is conducted in a participatory process with communities and is intended to facilitate decision-making on intervention points of entry for a health intervention. Cultural Identity in the PEN-3 Model is not restricted to limited categories of race and culture only but encompasses the multiple identities that individuals may assume within a cultural context (Luquis, 2021).

In this study, the *Cultural Identity* domain is explored to establish preferred intervention points of entry for COVID-19 prevention communication, especially to identify whether these should be at the person, extended family, or neighbourhood level. These insights can then facilitate an understanding of the acceptable and feasible pathways for developing locally relevant COVID-19 prevention messaging, which is the final research question for this study. Each of the three components of the Cultural Identity domain will be explained further.

Person

The Person component of the Cultural Identity domain identifies the person with the most influence on health behaviour (Airhihenbuwa and Webster, 2004). When the PEN-3 model was applied to understand the role of cultural competence perceptions in Mammography adherence amongst African American women in Harris County, Texas, results showed that when the cultural incompetence of medical professionals is not addressed, this can lead to a decrease in the utilization of medical and health care services and can cause health inequities and disparities amongst minority populations (Hall, Carter-Francique, Lloyd, Eden, Zuniga, Guidry and Jones, 2015). The authors of this study concluded that one of the important intervention entry points would be to target medical professionals with sensitization training to facilitate a more compassionate and personable approach toward their patients. It was hoped that this would increase Mammography adherence among women with cancer. The focus on the influencing *Person* can also be appreciated in the HIV response, where attempts to train women on condom use may not yield the desired results if they experience resistance from their sexual partners. In this study, the *Person* component of the *Cultural Identity* domain is explored to identify the person most likely to influence the adoption of COVID-19 prevention and control measures.

Extended Family

The *Extended Family* component of the *Cultural Identity* domain explores how kinship ties and the extended family influence health decision-making. For example, in India (Young et al., 2020) and Nigeria (Hidayah and Fatima, 2023), mothers-in-law and husbands were found to significantly influence exclusive breastfeeding by mothers, suggesting that a possible entry point for an intervention to promote exclusive breastfeeding could be mothers-in-law in Nigeria and both mothers-in-law and husbands in India. Additionally, in the HIV response in South Africa, Brown, BeLue and Airhihenbuwa (2010) identified the family as a significant support

system in the care and support of those who were infected with HIV, suggesting that the family could be an important point of entry for an intervention promoting care and support for people living with HIV. This study also explores the role of the extended family in influencing decision-making around COVID-19.

Neighbourhood

The *Neighbourhood* component of the *Cultural Identity* domain explores the role of the social context and communally held values in shaping health decision-making. The assumption is that prevailing narratives and local interpretations of disease at the community level have the capacity to influence health decision-making at the individual level. In the Mayan community in Guatemala, for example, community entry points that were identified in a participatory process with affected communities in developing a communication intervention to address HIV infections were religious groups, LGBT interest groups, and heterosexual young adults (Dunleavy et al., 2018). In this study, the *Neighbourhood* component is explored to identify community-level groups that have an influence on COVID-19 decision-making.

Limitations of the PEN-3 Model

As with most theories, the PEN-3 Model has its limitations. The model is quite elaborate in its many permutations, rendering it challenging to apply all its three domains in one study. As a result, most studies that have applied the model do not apply all three theoretical constructs of the model; hence, Iwelunmor et al. (2014) call for other researchers to apply all three domains of the model. In this study, all three domains of the PEN-3 model are applied in a two-phase process that seeks to establish the positive aspects of culture in influencing COVID-19 decision-making, and forging dialogue with communities to establish feasible and locally relevant pathways for culturally centred COVID-19 communication.

Another limitation pertains to the transferability of research findings derived from the application of the PEN-3 Model. The highly contextualized nature of the model may render the results from one study untransferable to another context, although there is evidence of similar findings between studies. Therefore, the application of the PEN-3 Model should always begin with a qualitative study to capture the uniqueness of each context, culture and population” (Iwelunmor et al., 2014:9).

Conclusion

This chapter has presented the theoretical framework applied in this study, which is the PEN-3 Model. The chapter has provided a detailed discussion of the genesis of the model, its epistemological grounding, and its application in other studies as well as in this study. The three domains of the model have been discussed in detail, exposing their application and relationship to the research questions for this study.

The rationale behind the application of the PEN-3 Model in this study has been provided, highlighting the centrality of cultural context and, more importantly, the positive framing of culture in its application and the focus on context instead of the individual. The PEN-3 Model has additionally been explored for its emphasis on a participatory, bottom-up, and empowering approach to health communication, with the aim of achieving tangible social change outcomes.

The three domains of the PEN-3 Model, which are Relationships and Expectations, Cultural Empowerment, and Cultural Identity, were outlined in detail, and the link between the model and the research questions for this study was clarified. Various examples of the use of the model were presented in this study, showing the utility of the model over time and in different geographic and cultural contexts. The chapter additionally presented the application of the PEN-3 Model in this study, where it is applied as a theoretical framework, as well as an analytic frame for data analysis. The limitations of the model have also been discussed, as all theories and models have limitations, although some of these are addressed in this study.

The next chapter presents the methodology adopted in conducting the study.

CHAPTER FOUR

RESEARCH METHODOLOGY

Introduction

This chapter presents the research methodology adopted in exploring community perceptions of COVID-19 communication, how they are culturally influenced and how they can form pathways for the development of locally relevant COVID-19 communication. The chapter presents the paradigmatic stance adopted, research design, participant sampling and recruitment, data collection processes, data analysis, research integrity, as well as explains how issues related to ethics were handled in the study.

In contrast to the other chapters, I write this chapter in the first person. The use of the first-person pronoun, “*I*”, in the writing of this chapter is not simply a matter of informal language but is informed by how I see myself as “standing for an ‘embodied’ rather than the ideal, rational subject of positivist research” (Starfield and Ravelli, 2006:223). I situate myself as a ‘Contemporary Humanities’ scholar, meaning that I “challenge the traditional depiction of the researcher as scientific, rational and objective”, and acknowledge that I operate in a more subjective and/or intersubjective mode and engage reflexively in conducting this research (Starfield and Ravelli, 2006:223). To this end, I also include in this chapter a section that explains my positionality as a researcher in this study.

Research Paradigm

It is well-established that all research is influenced by a guiding philosophy that determines the various methodological choices that a researcher makes in conducting the study. These are beliefs that the researcher has about the nature of reality (ontology), what counts as knowledge and how knowledge claims are justified (epistemology), the role of values in research (axiology) and the actual process of research (methodology) (Creswell and Poth, 2018). In this section I detail the philosophical assumptions that gird my study and explain how they influence the methodological choices made in conducting the study.

This is a qualitative study that seeks to explore community interpretations of COVID-19 prevention messaging. The study seeks to understand community interpretations and

perceptions of COVID-19 messaging and how these influence risk perception and self-efficacy of research participants from the three different geospatial locations. The assumption is that participants' views are reflective of their different socio-economic, historical, geographical and cultural contexts. An enhanced understanding of context-specific community interpretations will allow for tailored communication responses that are relevant to communities within these different geo-spatial localities.

My study is philosophically situated within the Social Constructivism paradigm, which stipulates that people seek an understanding of the world in which they live and work, then develop varied and multiple subjective meanings of their experiences, leading the researcher to look for complexity of views (Creswell and Poth, 2018). However, since the Social Constructivism paradigm “does not go far enough to advocate for action to help individuals” (Creswell and Poth, 2018: 61), additional concepts are borrowed from the Transformative paradigm, where the researcher collaborates with research participants to amplify their voices in a dialogic process for social change. The aim of this study is to raise critical consciousness through a community-engaged process, utilising community dialogues, to enable communities to transcend the social and structural constraints placed on them, additional concepts are borrowed from the Critical Theory paradigm (McDonald, 2017).

According to Guba, Lincoln and Lynham (2018:199), while different paradigms have concrete borders that delineate them from each other, in recent years “the boundary lines between these paradigms and perspectives have begun to blur” and paradigms are now beginning to “interbreed”. These authors further assert that there is now increased potential for different philosophical viewpoints or perspectives to be incorporated into one study and for bricolage or borrowing where this is deemed useful and may enhance the richness of the study. Similarly, in my study, there is recognition of the fluidity and shifting of boundaries between the two paradigms that inform the study.

Social Constructivism

The social constructivist paradigm postulates that reality is neither absolute nor static, but is instead variable, multiple and complex (Creswell and Poth, 2018). According to Tracy (2019:41), social constructivist researchers regard knowledge as “socially constructed through language and interaction, and reality as connected and known through society’s cultural and

ideological categories”, with reality not something tangible that can be measured, but which is considered a text to be read, interpreted and analyzed. This study seeks to produce “reconstructed understandings of the social world” (Guba and Lincoln, 2018:202) of participants in three geospatial locations and therefore recognises that participants’ views may vary depending on the socio-cultural context inherent within each geospatial location.

Ontologically, I believe that there is no singular reality, but that reality is multiple and varied, and, therefore, perceptions in these three geospatial locations may differ. As Creswell and Creswell (2018:32) assert, Social Constructivist researchers are interested in “varied and multiple” meanings “leading the researcher to look for the complexity of views rather than narrowing meanings into a few categories or ideas”. In exploring participants’ perceptions, therefore, I particularly look for similarities and/or differences in perceptions and seek to establish how these are influenced by the socio-cultural and structural context inherent within each geospatial location.

Epistemologically, I am influenced by the view that participants’ subjective perceptions of COVID-19 communication are influenced by historical and cultural norms that have been formed over time in social interactions within these communities. My interest is therefore in exposing the varied and multiple meanings that research participants assign to COVID-19 communication, with the understanding that these are influenced by structural, social and cultural factors inherent within their unique geospatial locations. In line with the Social Constructionist stance, I put value in “transactional knowledge” (Lincon and Guba, 2018: 202), which means that my interaction with research participants is based on two-way communication where participants’ viewpoints are honoured. Methodologically, I interacted directly with participants in the field, using open-ended questions and probes to solicit the multiple and varied perceptions of COVID-19 communication in these three geospatial locations. All of these ‘moves’ situate me within the Social Constructivist paradigm and reflect my ontological, epistemological, axiological and methodological stance as a researcher.

Some have argued, however, that social constructionist researchers are interested in things “as they are”, and “do not go far enough in advocating action to help individuals” (Creswell and Poth, 2018:61). My study explores socio-culturally influenced perceptions of COVID-19 communication but goes further to make the case for the engagement of communities in a

bottom-up, culture-centred and participatory approach to health communication. I therefore borrow additional concepts from the Transformative paradigm as explained below.

The Transformative research paradigm

The basic tenet of the Transformative research paradigm is that “knowledge is not neutral, and it reflects the power and social relationships within society” and should help people to transform and improve their society and therefore research should have an action agenda for change at community, institutional and/or policy level (Creswell and Poth, 2018:61). In addition, “transformative enquirers collaborate with research participants” (Creswell and Poth, 2018:61) and involve participants in formulating research questions, collecting and analysing the data and in writing and disseminating the research report. Participatory Action Research (PAR) studies are said to embrace this transformative framework (Kemmis and Wilkinson, 1998). As such, while this study is not a PAR study in the fullest sense, it borrows elements of collaboration with research participants.

As a result, in this study I collaborate with research participants in the second phase of data collection, following the data collection in Phase 1 through community dialogues, where participants get involved in some of the analytic work for the data collected in the first round of data collection, and they formulate solutions for a contextually relevant COVID-19 communication strategy. Based on the Freirean concept of critical consciousness (2001), participants are engaged as critical thinkers who can question certain assumptions and formulate possible COVID-19 communicative solutions that foreground their unique socio-cultural, structural, and geo-political contexts.

Creswell and Poth (2018:61) further argue that collaboration with participants in a participatory research process serves to “unshackle people from the constraints of irrational and unjust structures that limit self-development and self-determination”. In this study, top-down COVID-19 communication is regarded as irrational and unjust, hence the aim to engage participants in a liberatory process where they determine and suggest an alternative, bottom-up COVID-19 communication strategy that foregrounds community voices and offers contextually relevant communicative solutions.

This study is therefore influenced by these principles of the Transformative research paradigm in that I not only investigate community perceptions of COVID-19 communication, but I go further to explore how these community perceptions may form pathways for the development of locally relevant messages, which is the fourth research question for this study. It is hoped that the answer to this research question may influence both practice and policy at a KZN provincial level, or wider, especially in responding to the WHO Co-ordinated Global Research Map (2020a) call for social science research that leads to an increased understanding of contextual vulnerability related to COVID-19. The call for action is for pandemic communication responses that consider the socio-cultural and structural contexts, and which do not frame culture as a barrier, but which recognise the positive, existential and negative attributes of a culture that may influence the adoption of COVID-19 prevention measures. In advocating for action in line with my Transformative paradigmatic orientation, I additionally seek to expose hegemonic pandemic communication that silences the voices of the marginalised and, therefore, borrow additional concepts from the Critical Theory paradigm.

The Critical Theory Paradigm

Critical Theory researchers in communication “seek to expose how dominant groups are able to shape discourse in ways that serve their interests at the expense of the interests of nondominant groups” (McDonald, 2017: 3). In this study, I adopt Dutta’s (2020) assertion that hegemonic COVID-19 communication has contributed to the marginalization of communities, further driving them to the margins of the margins. Tracy (2019:42) states that “critical researchers view cultural life as a constant tension between control and resistance” and constantly question the hegemonic communicative practices that further marginalise communities and render them voiceless in the COVID-19 communication response. Accordingly, in this study, I problematize this top-down, hegemonic pandemic communication that ignores the social, cultural, and structural context, and engage in affirmatory practices through community dialogues to collectively challenge the existing asymmetrical power relations in the South African COVID-19 response.

Critically Quasi-Ethnographic Research Design

This is a qualitative study that adopts a critically quasi-ethnographic research design (Murtagh, 2007). Ethnography “is a qualitative design in which the researcher describes and interprets the shared and learned patterns of values, behaviors, beliefs, and language of a culture-sharing

group” (Creswell and Poth, 2018:143). A comprehensive definition of ethnography is provided by O’Reilly (2012:3), where she states that ethnography is

a practice that evolves in design as the study progresses; involves direct and sustained contact with human beings, in the context of their daily lives, over a prolonged period of time; draws on a family of methods, usually including participant observation and conversation; respects the complexity of the social world; and therefore tells rich, sensitive, and incredible stories. Ethnography should be informed by a theory of practice that understands social life as the outcome of the interaction of structure and agency through the practice of everyday life; that examines social life as it unfolds, including looking at how people feel, in the context of their communities, and with some analysis of wider structures, over time; that also examines, reflexively, one’s own role in the construction of social life as ethnography unfolds; and that determines the methods to draw on and how to apply them as part of the ongoing, reflexive practice of ethnography.

In line with the above definition, in this study, I interact with research participants over a prolonged time period, spanning 8 months, over two phases of data collection, where I engage in conversations with them that highlight their experiences of COVID-19 in their everyday social lives, allowing me to describe and interpret the shared patterns of behaviours, values, and beliefs related to COVID-19. This further affords me the opportunity to provide a detailed and thick description of the social life experienced by research participants as they interact with structure and agency in their everyday lives.

I also engage reflexively, as a researcher, in this study, outlining how my positionality influences my methodological choices and interpretations of the data generated. Theory also plays an important role in focusing the researcher’s attention in the practice of ethnography (Creswell and Poth, 2018), and accordingly, I draw on the PEN-3 Model, the theoretical framework of this study, to focus this study’s exploration of the research questions. In reporting the findings for this study, I provide verbatim quotes of the research participants and then “synthesise the data, filtering it through the researcher’s etic scientific perspective to develop an overall cultural interpretation” which exposes the themes related to the theoretical concepts being explored in the study (Creswell and Poth, 2018:145).

However, my engagement with research participants in this study was episodic, with periodic engagements, as opposed to sustained engagement involving total immersion in participants' lives, which is characteristic of authentic ethnography. The term 'quasi' is adopted to acknowledge the limited timescale and frequency of visits to the research sites. This is to acknowledge that while my study draws from ethnographic principles in its research design, the inability to fully immerse myself in the participants' everyday lives, mainly due to restrictions related to COVID-19, meant that some attributes of ethnography were adopted, but not all.

Creswell and Poth (2018) further distinguish between two types of ethnographic research, which are realist and critical ethnography. Realist ethnography presents an objective account of the situation, often in the third person, whereas critical ethnography includes an advocacy perspective, challenging the dominant communication systems that further marginalise communities at the margins (Ellers et al., 2020). In line with my Critical Theory paradigmatic stance, I use critical ethnography in this study to advocate for participatory pandemic communication responses that amplify community voices and consider the cultural context for its positive influence on health decision-making. As a result, the use of community dialogues is adopted as a research method in this study for the opportunity it provides to engage in not only the identification of challenges but also in the sharing of communicative solutions that are locally and contextually relevant in each of the three research sites for the study.

It is, therefore, these three main considerations that render this study a critically quasi-ethnographic research design.

Community dialogues as a research method

The concept of using community dialogues to address community challenges is not new and has been used in health communication as a tool to stimulate community participation in community health decision-making. Community dialogues have been described as “an interactive participatory communication process of sharing information between people or groups of people aimed at reaching a common understanding and consensus to address specific issues” (Martin, Leitão, Muhangi, Nuwa, Magul and Helen, 2017: 2). Inspired by the work of Paulo Freire (2020), community dialogues encourage critical thinking and the questioning of

assumptions and help community members envision and formulate new ways of thinking about commonly held community challenges and ways to solve them.

Community dialogues have been used as a participatory communication method in programme implementation in addressing various community health issues including; influencing gender and sexual norms for HIV prevention in Mozambique (Figueroa, Poppe, Carrasco, Pinho, Massingue, Tanque and Kwizera, 2016), to improve child health outcomes in Zambia, Mozambique and Uganda (Martin et al, 2017), for the prevention and control of schistosomiasis in Mozambique (Martin, Rassi, Antonio, Graham, Leitão, King and Jive, 2021) and to explore receptivity dynamics with Latinos and non-Latinos in the US (Schuch, Smith and Harden, 2021). In Zambia, Community Dialogues were also used to prevent adolescent pregnancy, early marriage and school dropouts (Zulu, Zulu, Svanemyr, Michelo, Mutale and Sandøy, 2022).

While community dialogues have been used extensively in programme implementation, their use as a research method is scarce, but emerging. The work of Moodley (2007), for example, showcased the use of community dialogues as a research method, where she explored university students' perceptions of HIV and AIDS communication. The use of community dialogues as a research method has also been observed in the work of Peggy Determeyer and Jerome Crowder (2019), where they assert that community dialogues provide a safe space for active information exchange between the researcher and research participants and overall lead to the empowerment of both the research participants and researchers. It was important in this study to ensure that the research process involves participatory learning and action, with research participants actively involved in sharing their experiences and perceptions related to COVID-19 communication, while also envisioning and formulating appropriate responses that would be culturally relevant for their different contexts. In line with the transformative research paradigm that influences this study, community dialogues were deemed fit as they allowed for a collaborative process between the researcher and research participants and provided for the amplification of community voices in determining what works and what doesn't in their unique cultural contexts.

According to Determeyer and Crowder (2019), community dialogues differ from focus group discussions (FGDs) as a research method in that with FGDs participants are asked about their opinions on a singular issue at a particular point in time, whereas in community dialogues participants meet over a prolonged time period, discussing various aspects of one topic.

Similarly, in this study, participants were involved in virtual WhatsApp community dialogues over a prolonged time period, discussing various aspects of COVID-19 communication as they had experienced it in their communities. The authors (Determeyer and Crowder, 2019) further assert that community dialogues offer space for a meaningful exchange of knowledge, resulting in both researcher and participants learning and gaining new knowledge in the process and research participants also learning from each other. This was observed in this study as participants engaged in a robust exchange of information, and both researcher and research participants asking questions and learning from each other. Evidence of this is demonstrated in Chapter Six which presents the findings of the study.

Physically distant online community dialogues

While community dialogues have largely been conducted face-to-face with research participants physically present in a venue, in this study the bulk of the community dialogues were conducted virtually via WhatsApp chat group platform. This was necessitated by restrictions brought about by COVID-19, which limited physical contact with people as a mitigation strategy against the spread of infections.

WhatsApp is a mobile application (app) that has a lower bandwidth than Zoom, allowing users to send text and voice messages, make voice and video calls, and share media such as images and documents even when internet connectivity is poor (The Seep Network, 2020). WhatsApp has grown exponentially to attract the largest percentage of users and has been used successfully in qualitative research in many contexts (Cruz and Harindranath, 2020). It is useful for providing “rich and context-specific data”, through its dialogical, instantaneous and multimedia capacities (Staudacher and Kaiser-Grolimund, 2016; Kaufmann and Peil, 2020; Barbosa and Milan, 2019). In a study in Singapore, researchers found that “WhatsApp group chat does have the potential to generate well-elaborated responses and group interaction” (Chen and Neo, 2019: 1).

In South Africa, WhatsApp is the most used social media platform, with 93,2% of internet users actively using the platform (Business Tech, 2020). Some studies have provided evidence of a rural-urban divide in technology access and usage, with urban, more affluent areas showing higher technology usage rates than rural areas (Gillwald, Mothobi and Rademan, 2018). However, other studies have demonstrated that this divide is more pronounced with regards to

computer usage and internet browsing, and much less so with mobile phone usage and the use of social networking sites (Gunzo and Dalvit, 2012). In a study exploring the data divide in a South African rural community, Lorenzo Dalvit, Steve Kromberg and Mfundiso Miya (2014:95) concluded that there is “a rapid uptake of networked activities in rural areas despite the relatively low socio-economic status of most respondents”. This platform was therefore deemed appropriate to utilise for this study as it has good penetration in marginalised settings where this study is located, is easy to use, affordable, allows for multi-way communication, and lends itself well for robust and open discussion envisaged to solicit communities’ localised understandings of COVID-19 messaging (Henry et al., 2020).

Admittedly, the consideration to use virtual community dialogues came as a result of movement restrictions brought about by COVID-19. My view of online Community Dialogues was that they were a less preferred second option, with face-to-face interaction regarded as the best option. However, experience with this data collection method revealed different possibilities for data collection, and not necessarily losses as I had initially imagined. In their review of *Innovations in Qualitative Methods*, Braun, Clarke and Gray (2017:246) discuss various benefits to online data collection methods, including the benefit of asynchronous communication, which involves “researchers posting questions that participants respond to in their own time”. In her appraisal of asynchronous email interviews, Gibson (2010) argues that this data collection method gives participants time to reflect on their experiences and allows for more in-depth explanations of people’s experiences.

Similarly, in this study, I engaged in asynchronous communication with participants, as I would initiate a discussion in the WhatsApp chat group, and participants would then respond in their own time. As can be seen in Figure 5, while one participant responds at 10h59, another one responds at 16h13. Other participants would only respond late in the evening on the same day, while others would respond the following morning. The only condition that we had agreed on with participants was that we would respond to one discussion point within a period of 24 hours, to enable us to move on to other discussion points that were planned for the virtual community dialogues.

An additional benefit of online data collection methods, especially through the medium of WhatsApp, is that participants can respond using written text, voice notes or visuals such as videos and pictures. In Figure 5 we see that one participant responded using written text, while

another one responded using a voice message. Another participant used a picture to make his point about COVID-19 not being feared in communities anymore, as seen in Figure 6. Indeed, the dialogic and multimedia functionality of WhatsApp has been mentioned as a positive feature of this platform when conducting research (Kaufmann and Peil, 2020).

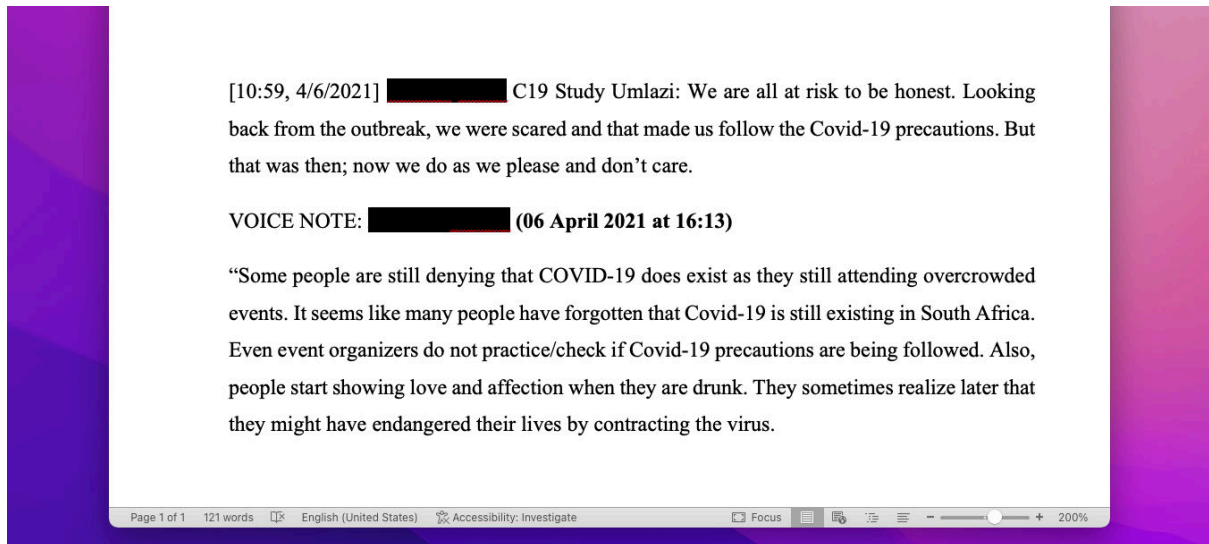


Figure 4.1 - WhatsApp chat group displaying asynchronous communication

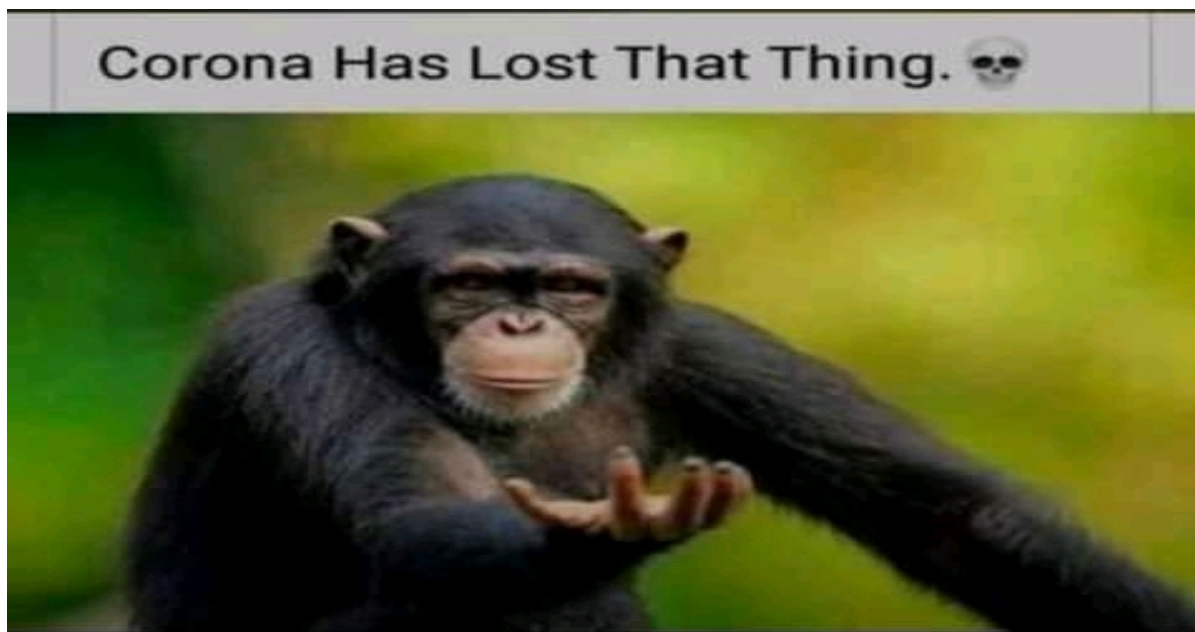


Figure 4.2 - Multimedia functionality of WhatsApp

Limitations of virtual data collection methods

While virtual data collection yielded the required results in terms of data collection in this study, it was not without its limitations. Even though participants were provided with data to facilitate uninterrupted connection on WhatsApp during the virtual community dialogues, connectivity issues became a challenge particularly at the rural area of Umbumbulu, where participants would have poor internet signal and not be able to fully participate in online discussions on WhatsApp. South Africa is also burdened with frequent power outages which result in planned rolling blackouts from time to time to ease the burden on the national electricity power grid. During these times of blackouts, better known as ‘load shedding,’ participants would lose internet connectivity or run out of battery on their mobile phone devices, and this would curtail their ability to participate in online discussions for the duration of the power outages. However, since the virtual community dialogues were conducted over a period of two weeks, participants would get the opportunity to engage in online discussions once they had the connection restored.

The lack of face-to-face interaction also challenges efforts to follow up through probing questions as research participants may not be online at the time that the probing question is asked, resulting in the probing question getting ‘lost’ as other participants continue engaging in the virtual group chat. In this study, I noted down all unanswered probing questions to ensure that I asked them again during follow-up face-to-face dialogues. Overall, I found that virtual data collection in this study worked better as I had combined it with face-to-face data collection sessions.

Another limitation of virtual data collection may be related to encouraging participation of group members who may be silent in the group. I found it challenging to call for more participation from those who seemed ‘silent’ in the group chat as I didn’t know why they were not participating at the time, as this could have been due to a variety of reasons, some related to connectivity issues, and some related to other personal circumstances.

Research Sites

The study is located in eThekweni Municipality in the KwaZulu-Natal province of South Africa, with a sample of communities that are categorized as rural (Umbumbulu), informal settlement (Cato Crest) and township (Umlazi) settings. South Africa has a legacy of racial

spatial segregation resulting from the apartheid system, with the majority of the non-white population living in rural areas, townships and informal settlements (Nwosu and Oyenubi, 2021). These have been classified as low socio-economic areas, with sub-optimal development, over-crowding and high unemployment rates (Ellison, Mattes, Rhoma and De Wet, 2022).

Umbumbulu is a rural area situated in tribal land, 45kms south of Durban. Tribal rural land in the province of KwaZulu-Natal is under the jurisdiction of traditional leadership structures of amakhosi (chiefs) and *izinduna* (herdsmen allocated to smaller geographical areas within a chiefdom and reporting to the chief) (Koenane, 2017). The population in Umbumbulu is 98,8% Black African, with 93,4% of residents being IsiZulu mother tongue speakers (Statistics South Africa, 2021). In contrast to single-home dwellings characteristic of suburban dwellings in South Africa, rural households are typically compounds with several dwellings within one compound, typically built with concrete blocks and cement, although there are still instances of mud huts in the area (see figure 4.3).



Figure 4.3 - Umbumbulu rural household (Shutterstock)

Cato Crest (Figure 4.4) is one of 581 informal settlements in eThekweni Municipality and is situated in Cato Manor, 9kms from the Durban city centre. The population of Cato Crest is predominantly Black African, with isiZulu and isiXhosa being the predominant languages in the area (Statistics South Africa, 2021). As in most informal settlement areas in the country, housing in Cato Crest is in damp, unlevelled temporary structures or shacks mostly built with second hand corrugated iron and/or wooden poles or pallets, and is densely-populated (Khumalo, 2020). Informal settlement dwellers in South Africa typically relocate from rural areas to pursue employment and other economic opportunities in the country's urban and industrialised areas. They are more likely to be unemployed and under-educated, with minimal access to water and electrification services (Ellison, Mattes, Rhoma and De Wet, 2022).



Figure 4.4 - Cato Crest Informal Settlement (Shutterstock)

Umlazi (Figure 4.5) is a township 19kms south of Durban. The township is the 4th largest in South Africa, and the biggest township in KwaZulu-Natal (Statistics South Africa, 2021). Umlazi is a predominantly Black African township, with isiZulu being the most predominant language in the area. Housing in this area is formalized with houses built with concrete blocks and cement, although some informal settlements have encroached upon the area. Umlazi enjoys the provision of refuse, water and electricity services from eThekweni Municipality, with good tar roads, schools, libraries and other essential facilities.

The three research sites have been selected for their unique location attributes, which provide useful insights on similarities and differences pertaining to positive, existential and negative perceptions that influence decision-making on COVID-19.

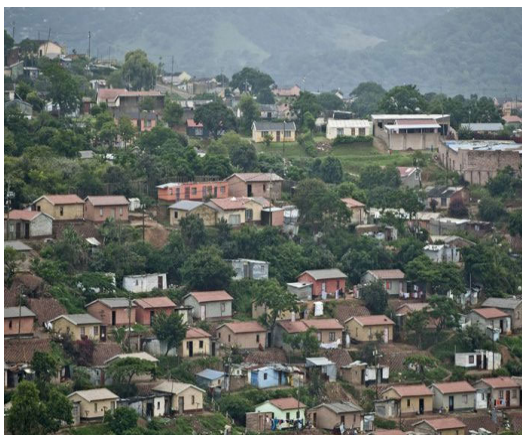


Figure 4.5 - Umlazi Township (Shutterstock)

Accessing the field

It has been argued that the process of gaining access to ‘the field’ has been overlooked and rarely acknowledged in social science research methods literature (Bengry, 2018). As Doykos, Brinkley-Rubinstein, Craven, McCormack and Geller (2014) have asserted, research is a complex social process and the interactions between the researcher and the researched continuously shape the research process, starting from the point of entry into the research field. In this study, I therefore provide a detailed account of my process in entering the field and accessing research participants for this study.

I am cognisant of McCall’s (2006) conceptualisation of *The Fieldwork Tradition*, where the field is understood as a ‘naturalistic’ research setting with geographic boundaries. Indeed, this study is located within specific geographical boundaries of rural, township and informal settlement areas in eThekweni Municipality. However, in line with post-modern constructions of the field, my understanding transcends the link to a geographical location, with the term being applied “more broadly to cultural settings and sites of social interaction” (Bengry, 2018:100). Due to restrictions on movements posed by COVID-19, adjustments to the research methods became necessary to avoid the further spread of COVID-19. What would have been face-to-face community dialogues in the three research sites for the study, turned to virtual community dialogues through the medium of WhatsApp chat groups. With most of the fieldwork conducted in virtual spaces through WhatsApp group chats, therefore, this conceptualization of the field as a site of social interaction within cultural settings is more relevant.

While it may be tempting to report on the process of accessing the field as linear and free of challenges, I recognise the importance of reflecting on the complexities involved in my process of accessing the field and to elaborate on how fieldwork access was negotiated and established, especially considering access challenges posed by COVID-19, which meant negotiating access into the field through virtual platforms, and engaging with research participants via virtual chat groups. In this section, I therefore provide a detailed account of how contact was made with community gatekeepers, and how research participants were recruited and enrolled into the study.

Initial gatekeepers

At the conceptualisation stage of the research, contact was made with a local NGO that has worked in the target communities for the study for more than two decades. Discussions to explain the nature of the research and to explore possibilities for collaboration were conducted with the director of this NGO. Agreement was reached that the NGO would allocate Community Facilitators that live and work in these communities to this research project, and they would help with recruitment of participants and other logistics that would be required from time to time. This NGO would facilitate access into all three research sites for the study.

It later came to light that this NGO was under financial strain as their major donor had not renewed their funding. This meant that the community facilitators would lose their jobs as a result. While the NGO director remained confident that I could continue to work with community facilitators to recruit participants for the study, I felt that this would be unethical, as participant recruitment involved time and resources, which the community facilitators would not be compensated for. This process that had taken two months to negotiate with this NGO had to be abandoned through mutual agreement, and an alternative NGO with a presence in similar geographic settings was sought.

After attempts to work with the first NGO had failed, contact was made with the AIDS Foundation of Southern Africa (AFSA), a local NGO based in Durban. AFSA is a development organisation that supports local, national and regional efforts in the fight against HIV, STIs, TB and which also works to remove barriers to the realisation of Sexual and Reproductive Health and Rights (SRHR) in communities where it works (AFSA website, 2022). The organisation works with local Community-Based Organisations (CBOs) and other NGOs with proximity to vulnerable communities and target populations, and therefore prides itself on succeeding to extend its reach to hard-to-reach, marginalised and vulnerable communities. In their HIV prevention work, AFSA works with communities in rural, township and informal settlement areas in many parts of KwaZulu-Natal, including in the eThekweni Municipality.

Recruitment of participants

The role of AFSA in this study was important as they provided access to the research sites and to community members that they work with on HIV prevention programmes. In this sense, they worked as gatekeepers into the field. AFSA management allocated their community facilitators

who live and work in the research sites, as key people that I would work with in recruiting participants for the study. Inclusion and exclusion criteria were discussed with the AFSA community facilitators. Thereafter, community facilitators were given a recruitment screener (Appendix 1), which they used in recruiting potential research participants for the study. The community facilitators had a period of two months to recruit participants before fieldwork commenced. Recruitment was done telephonically with community members that participate in AFSA’s programmes on a regular basis. I engaged in ongoing communication with AFSA community facilitators during the recruitment period, as it was important to ensure that participants who met the inclusion and exclusion criteria were selected. Once a full list of research participants was concluded, I started calling each participant on the list to further ensure compliance with the inclusion and exclusion criteria for the study, and to plan for the first meeting with them.

Inclusion and exclusion criteria

The following table presents inclusion and exclusion criteria for research participants that took part in this study (see Table 4.1).

Inclusion Criteria	Exclusion criteria
Participants over the age of 18 years	Participants below age 18
Participants that have lived in the area for at least one year	Participants that do not live in the specified research site or who have not completed a year living in that area.
Participants with a smart mobile phone with internet connectivity	Participants without a cell phone or with a cell phone with no internet connectivity
Participants with WhatsApp installed in their smart phones, and who were familiar with the basic functionality of the app	Participants without WhatsApp installed or with WhatsApp, but who had never used it before
Participants willing to be part of the study	Participants not willing to be part of the study

Table 4.1 - Inclusion and exclusion criteria

Sampling

Non-random, purposive sampling was used to select study participants based on pre-specified selection criteria above. According to Schreier (2018:88), purposive sampling involves the selection of participants that are most likely to yield “rich” information regarding answering

the research questions. In this study, participants were selected based on specific criteria, which included being a permanent resident of the area for at least one year and having access to a cellular phone with WhatsApp installed. Participants also needed to be above the age of 18 years, which is the age of consent in South Africa.

In the first phase of data collection, 24 participants were recruited, with equal numbers of male and female participants (see Table 4.2). In the second phase of data collection, 31 (11 male and 20 female) new participants took part in the study. This made 55 participants overall for the study, ranging in age from 18 to 50 years. The first phase of data collection took place in April, 2021, immediately after the first wave of COVID-19 infections in South Africa, and the second wave took place in November, immediately after the third wave of COVID-19 infections.

Demographic	Umbumbulu	Umlazi	Cato Crest	Total
Phase 1				
Gender				
Male	4	4	4	12
Female	4	4	4	12
Age				
18-35	4	4	4	12
36-50	4	4	4	12
Occupation				
Employed	3	2	1	6
Unemployed	5	6	7	18
Student	0	0	0	0
Phase 2				
Gender				
Male	4	5	2	11
Female	9	5	6	20
Age				
18-25	8	5	4	17
26-40	5	5	4	14
Occupation				
Employed	1	0	0	1
Unemployed	11	10	7	28
Student	3	0	1	4

Table 3.2 - Participant demographics

The recruitment of younger and older, as well as male and female participants in this study was in response to the WHO May 2020 Advocacy Brief on COVID-19 which called for research that considers age and gender differences to ensure a more effective response to COVID-19 (WHO, 2020d).

Participant Enrolment Meeting

Restrictions related to physical distancing for the prevention of COVID-19 infections prohibited face-to-face fieldwork for all researchers in South Africa. This necessitated a rethinking of how engagement with participants could be facilitated. Other scholars had started a shared online repository on how to conduct fieldwork during a pandemic, and this proved useful as I read up on alternative ways of conducting fieldwork via virtual platforms, eventually settling on WhatsApp as a preferred option due to its deep penetration in most geographic settings in South Africa. Evidence was emerging as well on the use of WhatsApp for conducting fieldwork in African contexts, confirming the virtual platform's utility in mediating engagement with research participants (Seep Network, 2020).

While the study was now planned as a virtual, online engagement with research participants, it was important for me to first meet them face to face as I had never worked with them before. The face-to-face contact was also important to help me create rapport with research participants before embarking on an online engagement with them via WhatsApp group chat. I was aware that accessing the field was not simply about establishing a physical presence to collect data, but that the process was rather a “social process of initiating, negotiating and maintaining field relations” with participants (Bengry, 2018:104).

While I realised that my ‘insider’² position as a resident of eThekweni Municipality and speaking the same language as the research participants (isiZulu), may enable me field access with minimal negotiation, it was important for me to facilitate a relationship with research participants through face-to-face interaction. Field access had already been granted through AFSA as a gatekeeper, however, field relations with research participants were important in this study as I would interact with them over a prolonged period and through a personal medium of WhatsApp group chat. Additionally, I was cognisant of the fact that the research participants themselves were not used to this type of virtual engagement and it was therefore important to have this face-to-face engagement as an initial step to talk through the intricate details of the study, explain what their role in the study was, and to engage with them to understand their opinions on the research process, and to address any fears and anxieties that they might have

² I thoroughly discuss my positionality as a researcher in this study in Chapter 5, demonstrating that my positionality was more than just about geography and language.

prior to starting with the virtual community dialogues. While I had established that all participants were quite conversant with WhatsApp and had used it for some time prior to this study, I was conscious of not making assumptions about the ease of this process and to ensure that we all agreed on mutual 'rules' of engagement for this research process.

While the usual practice is to hold meetings at local school and/or community halls, this was not possible due to COVID-19 restrictions that prohibited entry into these facilities by people that don't work there. At Umlazi and Umbumbulu, the participant enrolment meeting took place at one of the participants' homes. The enrolment meeting at Cato Crest took place at a local library. In all three venues, the meetings were conducted outdoors, and COVID-19 protocols of mask-wearing, physical distancing and sanitising were observed as this was mandatory according to the government regulations at the time. The Community Facilitators from AFSA played a vital role in communicating with participants about the details of meeting venues and other logistical transportation arrangements for participants to get to the meeting venue. At Umlazi and Umbumbulu, the AFSA Community Facilitators assisted with the transportation of some of the participants to the meeting venues. At Cato Crest, participants were able to get to the venue by themselves as it was near their homes.

The research participants were community members that had participated in AFSA programmes on HIV, STIs, SRHR and TB programmes before. In this way they regarded themselves as 'part of AFSA' due to their previous involvement in group interactions on these programmes. Most of them knew each other as neighbours and fellow participants in the AFSA programmes.

The study was explained to participants in isiZulu, the participants' home language. Participants were provided with English and IsiZulu copies of the informed consent form and they could choose which language version they wanted to use. Some participants preferred to have isiZulu version, while some preferred the English version. The study was explained to participants in detail and opportunity was provided for them to ask questions if they had any. Participants were then given the opportunity to decide whether they wanted to be enrolled in the study or not. In all three research sites, all participants opted to enrol after the study was explained and their questions were answered.

At this enrolment session, participants signed consent forms and then provided their cellular phone numbers. Data bundles of 1 gigabyte were transferred to each participants' phone immediately after signing consent. Upon confirmation of receipt of the data bundle, participants then signed to acknowledge receipt of the data bundle and signed for receipt of the per diem for their participation in the study.

It was important that participants be provided with data to enable participation in the WhatsApp group chats over a period of two weeks. While it is established that WhatsApp is easily accessible and available to most communities, regardless of their socio-economic status in South Africa, it is also acknowledged that data costs are comparatively high and unaffordable for most people (Gillwald, Mothobi and Rademan, 2018). It was therefore important for research participants to be allocated data that would enable them to remain connected for the duration of the two-week period while virtual community dialogues took place.

Data Collection

15 community dialogues were facilitated across the identified three research sites between March and November 2021 over two phases of data collection. The first phase of data collection took place in March/April 2021, immediately after the second wave of COVID-19 in South Africa. The second phase took place in October/November 2021, after the third wave of COVID-19 in South Africa. In both phases of data collection, some community dialogues were conducted virtually via WhatsApp group chat, and some were face-to-face Community Dialogues.

To comply with COVID-19 regulations for the prevention of infections, it was necessary to limit the number of face-to-face interactions to only one session in Phase 1 and two sessions in Phase 2 per research site and hold the rest of the dialogues virtually via WhatsApp group chat. All face-to-face community dialogues took place in open-air spaces and COVID-19 protocols of mask-wearing, hand sanitising and social distancing were observed.

Phase 1

Six community dialogues were conducted during the first phase of data collection, with two dialogues per research site. Virtual WhatsApp group chat community dialogues were conducted over two weeks, followed by a face-to-face community dialogue at the end of the two-week period. The same research participants participated in both the virtual and face-to-

face community dialogues for Phase 1. The WhatsApp community dialogue explored perceptions of risk and self-efficacy related to COVID-19. In this process I would post a discussion point in the WhatsApp group chat in the morning and allow participants to contribute their views on the discussion point.

Each discussion point was discussed over a period of 24 hours and participants could respond at any time convenient to them, if it was within 24 hours. Some participants would respond in written text, some using voice notes, while others would post pictures to express their views. While this method worked well most of the time, I found at times that if I asked a question for clarification, the owner of the post would not see my question in time and others in the group would continue to post their views and opinions until my probing question ‘got lost’ in the busy-ness of the discussion in the group, often times resulting in the probing question going unanswered. I noted down in my field diary all the probing questions that would go unanswered in the group chat, so that I could further probe during the face-to-face community dialogue that followed the virtual one.

The follow-up face-to-face community dialogue provided an opportunity for member reflections, which “are less a test of research findings as they are an opportunity for collaboration and reflexive elaboration” (Tracy, 2010:844). Others have discussed the importance of ‘member checks’ in qualitative research, where researchers return to the field to validate their findings with research participants to ensure that what they captured is an accurate reflection of what participants said and meant (Creswell and Poth, 2018). In my process, I started off the discussion by stating how I had interpreted what participants had said in the WhatsApp group chat, and allowed discussion where participants confirmed and further clarified what they had expressed.

However, my interest was not only in confirming what had been discussed in the virtual community dialogue. Instead, I adopted Tracy’s (2010:844) conceptualisation of this process as an opportunity for “member reflections” which “allow for sharing and dialoguing with participants about the study’s findings, and providing opportunities for questions, critique, feedback, affirmation, and even collaboration”. In addition to confirming what had been discussed in the virtual community dialogue, I was also interested in opportunities for the generation of “new data which throws fresh light on the investigation, and which provides a spur for deeper and richer analysis” (Bloor, 2001:239). As a result, new data was generated

during this face-to-face community dialogue, mostly through the probing questions that had not been answered during the virtual community dialogue.

Analysis of data from Phase 1

There was a seven-month time lapse between Phase 1 and Phase 2 data collection. This was intentional, as the aim was to first analyze data from Phase 1 before proceeding to Phase 2 of data collection. A secondary aim was also to collect data over two time periods in the COVID-19 pandemic to assess changing perceptions and local interpretations over time as the science progressed and new information came to light about COVID-19. This data analysis process was important as it would form the basis for further engagement with research participants in Phase 2 of the data collection.

Phase 2

Returning to the community to share findings from the 1st Phase is a key requirement of the PEN-3 model (Airhihenbuwa et al., 2012). In this phase of data collection, nine community dialogues were conducted, with three dialogues per research site. The first community dialogue was conducted face-to-face. In this community dialogue, data emanating from Phase 1 was shared with participants in a collaborative data analysis process. Since this was a different group of participants from those involved in Phase 1, I had summarised the key findings from Phase 1 in isiZulu, the participants' home language and written them up on large flipchart paper sheets. Whilst the original conceptualization of returning to the research site for Phase 2 data collection involves returning to the same research participants that had taken part in Phase 1, in this study, the research participants were not those involved in Phase 1, but different participants. However, these were community members from the same communities, and recruited through AFSA community groups as was done with Phase 1 research participants. My interest was in getting as many perspectives as possible from members of the same communities in this process of "member reflections", which is different from "member checking" (Tracy, 2010).

I explained that these were findings from dialogues conducted earlier in the year with members from their communities. At this stage, I had completed data analysis from Phase 1 and had isolated the positive, neutral, and negative perceptions, enablers, and nurturers. However, in sharing the data from Phase 1 with participants, I did not reveal how I had categorized the data according to these categories, but instead asked participants to work in groups to classify the

data according to what they thought was positive, neutral and negative perceptions, enablers and nurturers. It was important for me to ensure that my data categorization into positive, neutral, and negative aspects did not influence how participants categorized these aspects. Participants were provided with 3 colours of stickers; green for positive, yellow for existential and red for negative, and they were asked to stick these accordingly on the pre-written flipchart paper to indicate which aspect they thought was positive, existential or positive.

Once all groups were finished with this process, each group then took a turn to present their categorization to the whole group, with other group members having the opportunity to ask questions for clarification and further confirm if they also agreed with the categorization. There were some disagreements during this discussion process and where participants had different views, this would be indicated by placing another coloured sticker to indicate that some participants felt an aspect was positive, while others felt it was neutral, for example. In some instances, participants would also add additional perceptions, enablers and nurturers that they felt were important, but which had not been identified by participants in Phase 1. These were added onto the flipcharts as additional insights and categorised accordingly. A similar process of data sharing and collaborative analysis has been reported by Airhihenbuwa et al. (2012) in a study exploring HIV stigma in the Western Cape and Limpopo provinces in South Africa.

The virtual community dialogue was conducted over two weeks to identify entry points for a culturally appropriate COVID-19 communication response. The last face-to-face community dialogue was a reflexive elaborative process of member reflections on data collected during the virtual community dialogues (Tracy, 2010). The process adopted in this phase was similar to that applied in the member reflections stage in Phase 1.

Research site	1 st phase data collection	Dates	2 nd phase data collection	Dates
Cato Crest	WhatsApp community dialogue	1 – 13 April 2021	Face-to-face community dialogue	27 October 2021
			WhatsApp community dialogue	2 – 18 November 2021
	Face-to-face community dialogue	14 April 2021	Face-to-face community dialogue	19 November 2021
Umlazi	WhatsApp community dialogue	1 – 15 April 2021	Face-to-face community dialogue	28 October 2021
			WhatsApp community dialogue	2 – 16 November 2021
	Face-to-face community dialogue	16 April 2021	Face-to-face community dialogue	17 November 2021
Umbumbulu	WhatsApp community dialogue	1 – 16 April 2021	Face-to-face community dialogue	29 October 2021
			WhatsApp community dialogue	2 – 15 November 2021
	Face-to-face community dialogue	19 April 2021	Face-to-face community dialogue	18 November 2021

Table 4.3 - Data collection timeline in all three research sites

Data Analysis

The data were analysed using Braun and Clarke’s Reflexive Thematic Analysis (RTA), a data analysis process that “emphasises the importance of the researcher’s subjectivity as an analytic resource, and their reflexive engagement with theory, data and interpretation” (Braun and Clarke, 2021:3). While previously, it may have been thought that there is only one way of

conducting TA, it is now broadly accepted that there are different approaches to conducting TA, and that each approach is informed by the researcher's philosophical assumptions and procedural practices (Braun and Clarke, 2019; Clarke and Braun, 2013; Trainor and Bundon, 2021). Since their first articulation of thematic analysis (TA) in 2006, Braun and Clarke have subsequently 'rebranded' this data analysis method as RTA, to emphasise the role of the researcher as active and reflexive in the data analysis process (Braun and Clarke, 2019).

My approach to data analysis was informed firstly by my paradigmatic stance as a researcher, and secondly, by the theoretical underpinnings of the study. According to Creswell and Creswell (2018:32), social constructivist researchers "recognize that their own backgrounds shape their interpretation, and they position themselves in the research to acknowledge how their interpretation flows from their personal, cultural, and historical experiences". I was therefore cognisant of the fact that my own personal experiences and background would influence my data analysis process and would influence what interested me in the data and shape how I interpreted the data in the data analysis process.

Furthermore, as informed by the Transformative research paradigm, which foregrounds the non-neutrality of knowledge, I was aware of the need for the study to have "an action agenda for change", and to afford participants the opportunity to formulate communicative solutions for COVID-19 communication in their different spatial locations. It was therefore important for me to reflexively engage in the data analysis process, especially considering how my previous experience as a researcher and practitioner in health communication, influenced my thinking in the process of analysing data generated through the study. I reflect on my positionality as a researcher in detail in Chapter 6 of this thesis.

Braun and Clarke (2020) propose a six-phase process in analysing data using RTA, namely 1) data familiarisation and writing familiarisation notes; (2) systematic data coding; 3) generating initial themes from coded and collated data; 4) developing and reviewing themes; 5) refining, defining and naming themes; and 6) writing the report. The data analysis procedure adopted in this study is explained in detail in Chapter 6 of this study.

Research Integrity

The importance of ensuring rigour in qualitative research has been stated by several authors (Lincoln and Guba, 1985; Murphy and Yelder, 2010; Tracy, 2010; Nowell, Norris, White and Moules, 2017). It is also acknowledged that the quality criteria of generalisability, objectivity, reliability and validity commonly applied in quantitative research do not particularly apply in qualitative research methods (Guba and Lincoln, 1994; Cope, 2014), with some regarding these criteria as “illegitimate” in qualitative research (Tracy, 2010:838). Regardless, the need to ensure rigour and trustworthiness of qualitative research is an important consideration in any qualitative study. Similarly, in this study, several measures have been applied to ensure that the results of the study can be trusted.

Various authors have suggested specific criteria for ascertaining the quality of qualitative research, with the most common criteria used being those purported by Guba and Lincoln (1985, 1994), which are credibility, dependability, confirmability, transferability and authenticity. Subsequently, Tracy (2010:839) has proposed what she calls “eight big tent quality criteria” for ensuring rigour in qualitative research, and these are (1) worthy topic, (2) rich rigor, (3) sincerity, (4) credibility, (5) resonance, (6) significant contribution, (7) ethics and (8) meaningful coherence.

Some have argued that in naming these as universal markers of quality, Tracy “connects with a criteriological approach ... the belief that criteria for judging qualitative research needs to be, and can be, predetermined, permanent and applied to any form of enquiry regardless of its intents and purposes” (Smith and McGannon, 2018:114). Smith and McGannon (2018:114) therefore problematise the notion of universally applying criteria to all forms of qualitative research, arguing that universal criteria may be “exclusionary and punitive” and may serve to unfairly limit what may be termed good qualitative research.

Regardless of this, however, Gordon and Patterson (2013:693) apply Tracy’s criteria to their own work and conclude that they are useful because while they may be universal, they are not fixed, and therefore allow researchers the flexibility to apply “variant means” in reaching the end goal of research quality. Tracy (2010:837) herself has argued that each of these quality criteria “can be approached via a variety of paths and crafts”, depending on the researcher’s

context and theoretical grounding. In this study, I have drawn from Tracy's (2010) criteria, and I explain how each of the eight criteria applies to this study.

Worthy Topic

According to Tracy (2010), a worthy topic should be “timely, significant, interesting, or evocative”. An important distinction to note, however, is that while some topics may be timely, the way in which they are approached and investigated may be opportunistic and may thus be “likely to be pursued in a shallow way, with less care devoted to design and data collection” (Miles and Huberman, 1994:290). Admittedly, the topic of COVID-19 communication is a timely, significant and interesting topic, considering the novel nature of the epidemic and its global impact. However, the topic of my study goes beyond a shallow exploration of COVID-19 communication, but further “questions taken-for-granted assumptions” of top-down health communication approaches that focus on individual risk and disregard community socio-cultural contexts, often framing culture as a barrier (Tracy, 2010:840).

In framing this study within the PEN-3 Cultural Model (Airhihenbuwa and Webster, 2004), I explore the impact of culture on health beliefs and actions and engage in a dialogic process with communities to propose a focus on cultural context that involves the individual, their family and community in health communication and health promotion research and practice. At the onset of the COVID-19 pandemic, Airhihenbuwa et al. (2020) argued for the centrality of culture in determining an effective COVID-19 communication response that reduces collective risk. In addition, the WHO (2020a:92), in its *Coordinated Global Research Map for COVID-19*, called for research that explores “good participatory practice that includes communities in the public health response”.

I argue, therefore, that the topic for this study is a worthy topic as it not only explores a global priority of COVID-19 communication but does so within a theoretical framework that negates the ‘culture-as-barrier’ framing of health communication, rendering the study not only conceptually, but also theoretically compelling.

Rich Rigour

Rich rigour is an important end goal in a qualitative study, and can be achieved through various means, including collecting sufficient data to support claims that are made in the research report, spending enough time in the field to ensure that interesting and significant data is

collected, ensuring the alignment of context and sample chosen to the goals of the study, and utilising appropriate procedures in data collection and analysis (Tracy, 2010).

In this study, data were collected from 55 participants in two phases of data collection, and over a prolonged period of 10 months. The exploration of perceptions of risk, threat and self-efficacy (RQ1) and the social, structural and cultural factors that influence decision-making around COVID-19 (RQ2) in the three geospatial locations selected for this study required a sustained presence in the field to collect data. The Community Dialogue methodology adopted in the study was an appropriate methodology as it enabled critical thinking and exploration of community-driven solutions, which aligns with the Transformative Paradigm that epistemologically and ontologically grounds this study. The adoption of the RTA method to analyse data ensures rich rigor as it provides a rigorous and rich method of analysing data through the different phases of data analysis.

Sincerity

Sincerity is another end goal of Tracy's (2010) indicators for quality in qualitative research and is expressed through the researcher engaging reflexively on their own positionality in the research. In this study, I provide a reflexive account of my positionality as a researcher and practitioner in health communication, and how this influenced the overall design decisions that I made in all research processes involved in the study.

An additional marker of sincerity is transparency, which refers to "honesty about the research process" (Tracy, 2010:842). As such, in this chapter, I do not present my research process as being free of any challenges, but instead, I provide details of the field access challenges encountered and how these were overcome.

Credibility

Credibility is said to refer to "the truth of the data or the participant views and the interpretation and representation of them by the researcher" and is enhanced by the researcher verifying research findings with research participants and maintaining audit trails of the research (Cope, 2014:89). However, Tracy (2010:844) purports that rigour can be enhanced in research by going beyond the mechanistic verification of findings and instead recommends what she terms "member reflections", which allow for sharing and dialoguing with participants about the study's findings, and providing opportunities for questions, critique, feedback, affirmation, and even collaboration".

In this study, in each phase of data collection, I conducted follow-up, face-to-face community dialogues with research participants where my interpretation of the data from the virtual community dialogues was shared with them, and participants had the opportunity to further question, clarify and/or contribute additional insights on the various issues that were discussed. As such, the member reflections were “less a test of research findings”, but rather served as an “opportunity for collaboration and reflexive elaboration” with participants (Tracy, 2010:844), where new additional insights were gleaned. This process is explained in detail in the Data Analysis chapter.

An additional measure of credibility applied in this study was keeping an audit trail of all the processes involved in data collection and analysis. My field diary was maintained electronically and is shown in my discussion on reflexivity in this chapter. Other documentation related to this study, namely Informed Consent forms, Gatekeeper letters, Discussion guides, recordings and transcripts were also filed electronically, and examples are reflected in this, and the Data Analysis chapters, with some of the documentation included as appendices. This audit trail ensures transparency of the research process and further provides an opportunity for the study to be replicated by others who may wish to do so (Cope, 2014).

Resonance

Tracy (2010:844) uses the term, resonance, to refer to the researcher’s ability to “meaningfully reverberate and affect an audience”. She proposes that this can be done through aesthetic merit, formal generalizations and transferability. Aesthetic merit refers to the writing of the text in a “beautiful, evocative and artistic way” (Tracy, 2010:845), and this can be achieved through applying story-telling techniques that engage not only the mind, but also the heart of the reader. I fulfil this criterion through the writing of this methodology chapter in the first person to evoke empathy and identification by the readers that have no direct experience with the context of the research. This is in line with Dadds’ (2008) call for research that goes beyond the intellectual, but which can lead to emotional transformation of the reader, and which promotes greater mutual regard for the study. According to Creswell and Poth (2018:88), when readers experience ‘being there’, “the story and findings become believable and realistic”.

A second marker of resonance is Transferability and Naturalistic Generalizations, which refer to a study’s “potential to be valuable across a variety of contexts or situations” (Tracy,

2010:845). While it is generally accepted that qualitative research studies are situated within specific cultural and historical contexts and can therefore not be generalized to predict future outcomes, “knowledge generated through qualitative methods can still transfer and be useful in other settings, populations, or circumstances” (Tracy, 2010:845).

Significant contribution

For a study to fulfil the significant contribution criterion, it must demonstrate how, in the current climate of knowledge, practice and politics, it contributes to either extending knowledge, improving practice, or advancing liberation and empowerment in its field (Tracy, 2010). Four domains of significant contribution are identified: theoretical, heuristic, methodological, and practical (Tracy and Hinrichs, 2017), although it is not a requirement for a study to demonstrate all four domains. A study demonstrates theoretically significant contribution if it applies existing theory to new and different contexts, extending or problematizing current theoretical assumptions and offering new understandings that can be used by future researchers (Tracy, 2010).

Heuristic significance “is the quality of research that prompts curiosity in others, moving them to act, perform additional investigations, or examine how a concept might play out in a different context or group” (Tracy, 2010:241). While it may not be within the ambits of a study’s author to declare heuristic significance, one way in which heuristic significance is bolstered in this study is the fact that I outline possible future directions for research in the area of culture-centred pandemic communication, and I make specific recommendations for policymakers to act on the findings of the study. This study makes a significant contribution to knowledge and offers recommendations for improving research and practice. This is explained in more detail in the Conclusion chapter.

Ethics

Ethical research is concerned with procedural rules and regulations, as well as with “situational preferences and participants’ needs” (Tracy, 2010:245). Procedural ethics are ethical actions prescribed by research ethics committees (REC) or institutional review boards (IRB), with specific requirements pertaining to 1) do no harm, 2) avoid deception, 3) get informed consent, and 4) ensure privacy and confidentiality (Tracy, 2013). In this study, several actions were undertaken to ensure that ethics were upheld throughout the duration of the study.

Ethical Clearance

The study protocol was submitted to the University of KwaZulu-Natal's Human and Social Sciences Research Ethics Committee (HSSREC) and received ethics approval with the ethics clearance number – HSSREC/00002318/2021. The ethical clearance process requires that researchers ensure that gatekeeper letters are secured where researchers are to work with human participants in community settings. Additionally, evidence of informed consent by research participants must be produced, which provides details of how research participant confidentiality will be maintained to protect participants' identities if they do not wish to be identified in study reports. The advent of COVID-19 necessitated additional ethics requirements, particularly to ensure that no harm accrued to research participants during the course of data collection, ensuring protection from COVID-19 infection. The HSSREC provided amended guidelines for ensuring the protection of participants from infection with COVID-19. All these measures will be explained in detail below.

Gatekeeper Letter

Gaining entry into a research site requires the researcher to identify the relevant gatekeepers and negotiate entry into the field using the appropriate channels (Bengry, 2018). The challenges experienced with entering the field have been explained earlier in this chapter. The community-based NGO, AFSA that I collaborated with in entering the research sites was the official gatekeeper into the three research sites, and provided a gatekeeper letter, affirming their support of the research. The gatekeeper letter is attached as Appendix 5.

Respecting Autonomy - Informed Consent

Respecting research participants' autonomy in research means ensuring that their capacity and right to make decisions about their own lives are not undermined (Traianou, 2014). This is usually achieved through participants signing an informed consent form that stipulates that participants are aware of the procedures for the research and are voluntarily engaging in the research. In this study, all participants signed an informed consent form, agreeing to be part of the study, but with the awareness that they were doing this voluntarily without coercion and that they were free to exit the study at any time without this disadvantaging them in any way. The informed consent forms also stipulated measures for ensuring participant confidentiality, which were that their real names would not be used, but pseudo-names would be used instead, in the written reports. In this study, the participants spoke isiZulu. Informed consent forms were therefore translated from English to isiZulu. Participants were given the choice to sign either the English or isiZulu version after the contents of the informed consent form were

explained in detail and their questions were answered. The consenting process was done in person. The informed consent forms are attached as Appendix 3 and 4.

Protection from harm – COVID-19 safety protocols

Due to the COVID-19 outbreak, the UKZN HSSREC issued an amendment to the research ethics regulations and prohibited all face-to-face contact between researchers and human participants initially at the onset of COVID-19. These guidelines were later amended and allowed for face-to-face interactions with research participants but under strict COVID-19 protocols of physical distancing, mask-wearing, and hand sanitizing practices. Researchers were advised to ensure the provision of face masks and handwashing facilities or hand sanitizers for research participants if they held face-to-face sessions. In my study, I decided to change the community dialogue strategy from face-to-face to virtual, as a safety consideration for research participants. However, since virtual data collection was an experience new to me and possibly to the research participants, I recognized the need to have at least the enrolment session in person as this would allow participants to learn more about the study and ask any questions they may have had. The consolidation community dialogue that took place after the two-week virtual community dialogues was also conducted in person to allow for a proper conclusion to the data collection process. During the face-to-face sessions, all COVID-19 safety protocols were observed, with the sessions held in outdoor spaces, the researcher and research participants wearing masks and the use of hand sanitizer to prevent infections.

Meaningful Coherence

For Tracy (2010:848), meaningfully coherent studies should be characterized by the following:

- Achieve their stated purpose,
- Accomplish what they espouse to be about,
- Use methods and representation practices that partner well with espoused theories and paradigms,
- Attentively interconnect literature reviewed with research foci, methods and findings.

Meaningful coherence refers to “the overall consistency, soundness, and rationality of a study” (Tracy and Hinrich, 2017:9). Meaningful coherence is also evidenced when the researcher makes logical and intuitive connections between various arguments in their study. In this study, I have ensured that there is internal consistency between the research questions, the theoretical

framework for the study, and the research methods selected for the study. The research questions for the study are derived from the theoretical constructs of the PEN-3 Model and the paradigmatic stances adopted are in line with the methods adopted for the study, as explained earlier in this chapter.

Conclusion

This chapter has provided a discussion of the research methodology adopted for this study and has outlined my paradigmatic stances, where I straddle 3 paradigms of Social Constructivism, Transformative, and Critical Theory paradigms. I have explained my choice of critical ethnography as the research design for this study, linking it to the paradigmatic stance that informs my study. I have also outlined the data collection method adopted, which is that of virtual and face-to-face community dialogues, which afforded me the opportunity to engage critically with research participants in understanding factors related to answering the research questions for my study. I discussed possible limitations of virtual data collection methods, outlining how these were mitigated in this study. The recruitment process has been explained in detail, and the dynamics of entering the research site have been exposed to provide a picture of the challenges and successes during this process.

I have then outlined the data collection process, which took place over two phases, and justified the choices made throughout the data collection process. The quality criteria applied in this study have been explicated, based on Tracy's (2010; 2013;) 'big-tent-criteria', which include how ethical considerations were addressed in the study. The data analysis was discussed in brief terms, and will be explained in more detail in the next chapter.

CHAPTER 5

DATA ANALYSIS

Introduction

This chapter presents the data analysis methods and procedures used in analyzing data for this study. Data analysis is a necessary step in qualitative research which involves the observation and discernment of patterns within data to construct meanings that capture the essence of the data (Saldaña, 2014). In this chapter, I explain the data analysis method adopted for this study, with visual representations of all the steps undertaken to sort and organize data into meaningful patterns that reflect essential themes emanating from the face-to-face and online community dialogues with study participants. The specific method used in analyzing data is Thematic Analysis, which is “a method for developing, analyzing and interpreting patterns across a qualitative dataset” and involves a “systematic process of data coding to develop themes” (Braun and Clarke, 2021:4).

Thematic Analysis

Thematic analysis is varied (Terry, Hayfield, Clarke and Braun, 2017). This is due to the many ways in which thematic analysis has been conceptualized and utilized by different scholars over time. While it is beyond the scope of this study to trace its development over time, Thematic Analysis gained popularity as a named and claimed method of qualitative data analysis through Braun and Clarke’s seminal article, *Using Thematic Analysis in Psychology*, published in 2006. It was in this article that Braun and Clarke (2006:77) described TA as “a poorly demarcated and rarely acknowledged, yet widely used qualitative analytic method”.

The definition of TA adopted in this study is that of “a method for analyzing and interpreting patterns of meaning (‘themes’) within qualitative data” (Clarke and Braun, 2017:297). As already articulated by others (Trainor and Bundon (2021), Clarke and Braun, Terry et al., 2017), there is no one way to do TA. The two broad ‘schools’ of TA that can be differentiated are (a) the ‘small q’ TA that aligns more closely with positivist research, and where researchers aim for coding reliability (Kidder and Fine, 1987). The work of scholars such as Boyatzis (1998), Guest, McQueen and Namey (2012) and Joffe (2011), amongst others, can be said to

fall within this category of ‘small q’ TA. The second school of TA is referred to as ‘Big Q’ TA (Kidder and Fine, 1987) and is said to operate “within a qualitative paradigm and is characterised by (genuine) theoretical independence and flexibility, and organic processes of coding and theme development” (Terry et al, 2017:6). The TA adopted in this study aligns more with ‘Big Q’ TA, as it is firmly grounded within a qualitative paradigm, adopting an organic approach to coding and theme development, while emphasising the active role of the researcher in data collection and analysis (Clarke and Braun, 2017). I apply TA as a data analysis method in this study as it is a tool that provides “accessible and systematic procedures for generating codes and themes from qualitative data” (Clarke and Braun, 2017). TA provides me, as a researcher, the tools with which to identify and interpret key features of the data that are relevant to answering the research questions for this study.

Literature further points to differentiations that can be made between various forms of TA belonging to the “TA family of data analysis methods” (Braun and Clarke, 2020:139). To this end, Braun et al (2019) identify three broad categories, namely, *coding reliability*, *codebook* and *reflexive approaches*. *Coding reliability* approaches “involve early theme development” and the conceptualization of coding as “a process of identifying evidence of themes” with a structured approach to theme development involving the development of coding frames or codebooks where multiple coders work independently to apply the coding frame to the data (Braun and Clarke, 2021:39). In *codebook approaches*, multiple researchers will code different parts of the same data set to map the developing analysis, mostly for pragmatic reasons related to time considerations. The above two approaches to data analysis are said to be grounded upon a positivist framework, leaning more towards ‘small q’ research (Terry et al., 2017).

The third category of reflexive approaches involves theme development later in the data analysis process after rigorous and systematic code development, underpinned by “considerable analytic and interpretative work on the part of the researcher” (Braun and Clarke, 2020:39). The emphasis in reflexive approaches to data analysis is on the “importance of the researcher’s subjectivity as an analytic resource, and their reflexive engagement with theory, data and interpretation” (Braun and Clarke, 2020:3). Since their initial conceptualization of TA in 2006, Braun and Clarke have since rebranded their TA to Reflexive Thematic Analysis (RTA), reinforcing the importance of a reflexive researcher in the process of data analysis. This is the specific data analysis approach adopted for this study.

Reflexive Thematic Analysis

The basic tenet of Reflexive Thematic Analysis (RTA) is that “themes cannot exist separately from the researcher” as they are generated by the researcher through an immersive process of in-depth engagement with the data through several phases of data analysis (Braun and Clarke, 2020:39). Fundamental to the data analysis process in RTA is the valuing of “a subjective, situated, aware and questioning researcher” that critically reflects on their research practice and process and their role as a researcher within a qualitative paradigm (Braun and Clarke, 2022:5). As a result, a researcher using RTA as a data analysis method must explicitly reflect on their positionality as a researcher and bring their own “histories, values, assumptions, perspectives, politics and mannerisms” into the research, including how their interpretations of the data collected is informed by their assumptions, values and commitments (Braun and Clarke, 2013:36). Researcher reflexivity in RTA is therefore more than just positionality, but also “about the role of the researcher as an active agent in the production of knowledge” (Trainor and Bundon, 2021:3).

I therefore include a section on reflexivity in this chapter where I foreground my own thought processes in relation to my positionality as a researcher, but also with regards to my epistemological and ontological stance informing this study.

Reflexivity in RTA

It is well-accepted that reflexivity is an important aspect of qualitative research. Additionally, various definitions of what reflexivity is in qualitative research abound (Malterud, 2001; Finlay, 2002; Russel and Kelly, 2002; Mauthner and Doucet, 2003; Walsh, 2003; Finefter-Rosenbluh, 2017). Drawing from various authors’ definitions of reflexivity, Olmos-Vega, Stalmeijer, Varpio and Kahlke (2023:242) have provided a synthesized definition of reflexivity as “a set of continuous, collaborative, and multifaceted practices through which researchers self-consciously critique, appraise, and evaluate how their subjectivity and context influence the research process”. In addition, reflexivity can also be thought of as:

The turning of the researcher lens back onto oneself to recognize and take responsibility for one’s own situatedness within the research and the effect that it may have on the setting and

people being studied, questions being asked, data being collected and its interpretation. As such the idea of reflexivity challenges the view of knowledge production as independent of the researcher producing it and of knowledge as objective (Berger, 2015:220).

Reflexive engagement in qualitative research flouts the positivist notion of “dispassionate objectivity” by the researcher, and instead foregrounds the researcher’s beliefs, background and life history as central to all research processes (Bukamal, 2022:327). In contrast to positivist notions of subjectivity as problematic and equating to ‘researcher bias’, therefore threatening the ideal of objectivity, in Big Q qualitative research, researcher subjectivity is an essential and valuable “fuel that drives the engine” of RTA (Braun and Clarke, 2022:12). Researcher subjectivity in RTA is therefore viewed as “the key to successful reflexive TA” (Braun and Clarke, 2022:12).

This process of reflexive engagement by the researcher is important, not only to demonstrate robustness in the quality of the research, but also to clearly elucidate all elements of the research context for increased understanding by the reader (Dodgson, 2019). Accordingly, in this chapter, I provide a detailed account of my positionality as a researcher, and how this influenced and shaped various processes of the study, including data analysis. In order to ensure that my exposition of my positionality is not merely irrelevant “navel gazing” (Braun and Clarke, 2022:13), I isolate specific aspects of my researcher positionality which have a direct impact on decisions and choices made in conducting the study, including the data analysis procedures undertaken, which are my personal, interpersonal, methodological and contextual reflexivity (Olmos-Vega et al., 2022). These are explained below.

Personal Reflexivity

According to Braun and Clarke (2022), in writing about personal reflexivity, researchers need to consider their intersecting social positionings, and how these influence the research. These can include gender, race, age, religion, nationality, depending on which of these have a bearing on decisions made in conducting the study. Important to consider is how these shape a researcher’s worldview and consequently their interactions with research participants. I identify as a Black female South African with strong roots in some of the research sites for the study. I grew up in Umlazi township and uMtwalume, a rural area on the South Coast of KwaZulu-Natal, with my parents having homes in both places. Growing up, this was a common

experience amongst all our friends and neighbours, with the township being a convenient location for adults to get closer to working opportunities in urban areas, but maintaining strong ties with the rural home, as this was regarded as the 'official home'. Movement between the two homes was frequent, with others keeping weekly visits to the rural home, and some on a monthly basis.

Through marriage ties, I have a home in the rural area of uMbumbulu, which is one of the research sites for this study. Even though we live in a suburb in an urban area, we frequently visit uMbumbulu area, where we have extended family. I have a history of working in Cato Crest informal settlement area in previous research projects, and therefore have a certain level of affinity with the area. I am also Zulu speaking, which is the language of the research participants and the language used to collect data for the study. In this way, I can be considered an insider to the research participants and context, as I have in-depth understanding of the context in all the study research sites. In all the phases of this research I was aware of the affordances that my positionality provided from negotiating field access to data collection, analysis, and finally reporting on the results of the study. Therefore, in listening to participants accounts of their experiences and perceptions of COVID-19 communication in their communities, I could identify with most of their experiences as some of them were like my own personal experiences, not only with COVID-19 communication, but also with HIV communication.

Professionally, I have worked in the field of HIV prevention in both project implementation and research for several years and am therefore aware of the evolution of the field of health communication for HIV prevention, where I have witnessed the application of top-down communication approaches that target the individual, disregarding the socio-cultural context of communities being targeted with that communication, especially in the African context. My interest in the topic for this study was therefore sparked by observing one-directional COVID-19 communication that involved one-way and uniform broadcast messages to audiences. I was therefore interested in exploring community perceptions of this communication as well as how communities were interpreting and localizing these messages, and how this was influenced by the peculiarities of each geographical location, hence my interest in comparing perceptions in rural, township and informal settlement settings.

Philosophically I am influenced by the work of scholars such as Paulo Freire (1970), Mohan Dutta (2008), Collins Airhihenbuwa (1990), Bagele Chilisa (2019), Gayatri Spivak (2012); all critical studies scholars that emphasize community agency and consideration of the cultural and structural contexts that influence decision-making around health and development, particularly in sub-altern communities. My choice of theoretical framework for the study, Airhihenbuwa's (1990) PEN-3 Cultural model is also informed by this philosophical orientation and conviction that the cultural and structural context is key to consider in health communication as health decisions are mediated by culture and structure at community level. In addition, local communities have agency which they enact in various ways as they navigate daily situations that expose them to health risks and are best placed to formulate solutions for the health challenges that they face (Dutta, 2008).

This theoretical grounding is in line with my Social Constructivist, Transformative and Critical epistemological and ontological positioning as a researcher, with the belief that reality is varied, multiple and complex and the task of a qualitative researcher within this paradigm is to explore these varied meanings that are themselves influenced by historical and cultural norms within the different communities involved in the study. As I started the data analysis phase, therefore, I was interested in exposing how participants' cultural identities and their structural environments influence their decision-making around COVID-19 prevention, particularly to discover both the positive and negative aspects of the cultural context, as well as neutral perceptions, enablers and nurturers in their structural environment (Airhihenbuwa, 1990).

My data analysis process is therefore guided by the research questions for the study, which are in turn, closely linked to the theoretical framework underpinning the study. While the PEN-3 Cultural Model is an analytic frame guiding the study, I deliberately approached the data analysis process openly, and avoided coding according to the theoretical constructs early on, as I felt that this had the possibility of short-circuiting the data analysis process. I therefore embarked on the data analysis journey being guided by Braun and Clarke's 6-phase RTA process, but keeping in mind that once the themes are fully developed, I would then return to the theoretical framework and arrange the findings according to the theoretical constructs of the PEN-3 model.

The six phases of RTA

Reflexive Thematic Analysis involves a process of six phases, which are (1) Familiarization with the data set, (2) Coding, (3) Generating initial themes, (4) Developing and reviewing themes, (5) Refining, defining and naming themes and (6) Writing up the research report (Braun and Clarke, 2021). While they are numbered in a linear fashion, their application is iterative, with the process involving moving back and forth between the different phases (Trainor and Bundon, 2021; Terry et al., 2017; Braun and Clarke, 2020, 2021). The use of the term ‘phase’ instead of ‘steps’ is also deliberate, as the latter may invoke a linear and unidirectional process, which is not the case with RTA (Braun and Clarke, 2021).

Phase 1 – Familiarization with the data set

This phase involves a process of immersion in the data through reading and re-reading transcripts and listening to audio recordings, and making notes as you go through this process (Braun and Clarke, 2012). Familiarization with the data set “involves both closeness and familiarity (immersion) and distance (critical engagement)”, which means that the researcher engages in a process of getting familiar with the data, while concurrently applying a critical and analytical lens to the data that will ultimately lead to meaning making out of the data set (Braun and Clarke, 2022:43). These two processes of immersion and critical engagement can be sequential or concurrent, but critical engagement usually stems out of deep and meaningful immersion with the data set.

As indicated in the Methodology chapter, data collection was conducted in two phases, with each phase focusing on specific research questions for this study. The data collected in Phase 1 of the research was analyzed before Phase 2 commenced. Phase 2 data were collected six months after Phase 1 data collection. Similar processes of familiarization were adopted for the analysis of data from both phases of data collection. I had collected data through online community dialogues, using the medium of WhatsApp chat groups. Since the community dialogues had been conducted in isiZulu, all community dialogue transcripts had been translated into English by a research assistant. In familiarizing myself with this data, I read and reread both isiZulu and English versions of the transcripts. This was an important step for me as I needed to ensure that the English translations reflected the true essence of what had been expressed by research participants in isiZulu. I had started an electronic reflexive journal where I was writing down my thoughts and impressions during data collection. During the data familiarization phase, I referred to my field diary where I had written my reflections during

data collection. Figure 10 provides an excerpt from my field diary where I reflected on challenges posed by not transcribing the data myself, but through a research assistant.

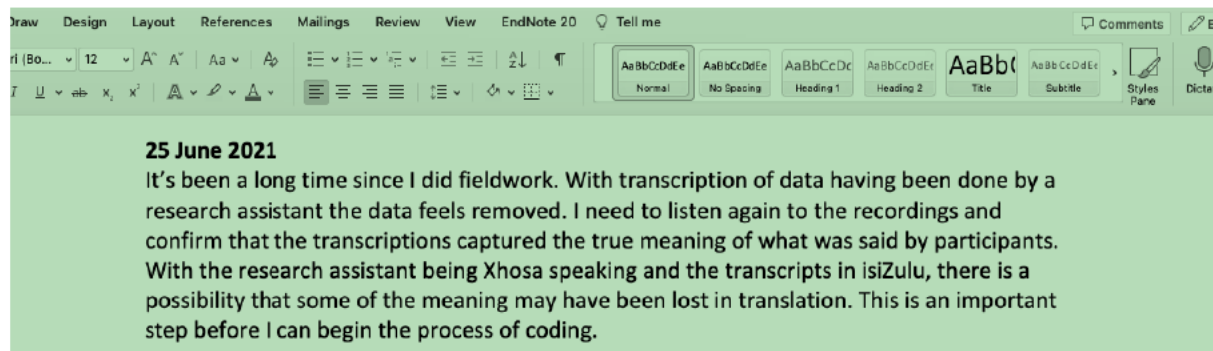


Figure 5.1 - Field diary excerpt

Data had also been collected in face-to-face community dialogues and had been recorded using a voice recorder. Since a research assistant had transcribed and translated the voice recordings, I listened to the transcripts and read and re-read the translated transcripts, to familiarize myself with the data before moving to the coding phase. According to Braun and Clarke (2022), it is important for the researcher to listen to the audio recordings and read and re-read audio transcripts as part of data familiarization, especially if they did not transcribe the data themselves. I also referred to my field notes during this process to remind myself of my thought processes while I was in the middle of data collection. For example, I had written a field diary note (Figure 11) about the predicament of the traditional healer who related the difficulties she faced at the height of the COVID-19 pandemic in the WhatsApp chat group. When I started with data familiarization, the field notes served as a good prompt, as can be seen in the tracked changes comment in Figure 12. This example further provides evidence of my critical engagement with the data set arising out of immersion in this process of data familiarization.

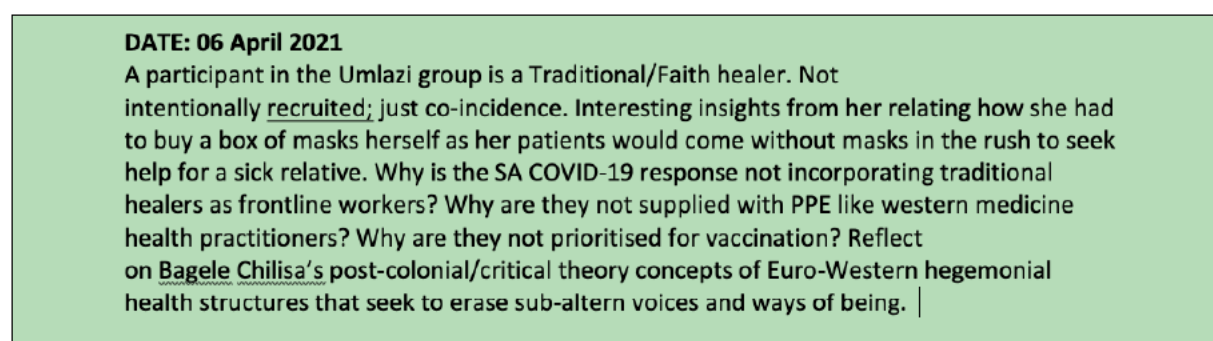


Figure 5.2 – Field diary note

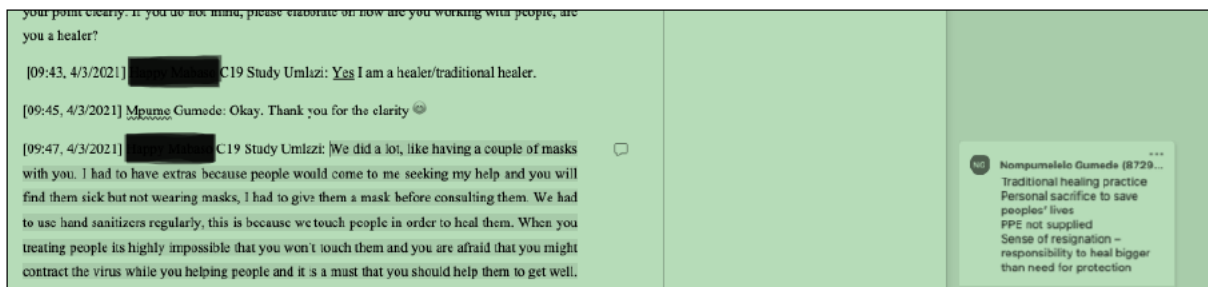


Figure 5.3 – Semantic coding

Once I had worked through the entire data set on familiarization, I made brief familiarization notes about potential patterns of meaning in relation to the research questions for the study. This is an important step that ensures reflection on the entire data set, as opposed to individual data items, and which ensures that the researcher moves into the next phase of coding with a critical and questioning mindset (Braun and Clarke, 2022). Figure 5.4 below shows an excerpt from my familiarization notes that captured the essence of my overall reflections on the entire data set related to the first research question for the study.

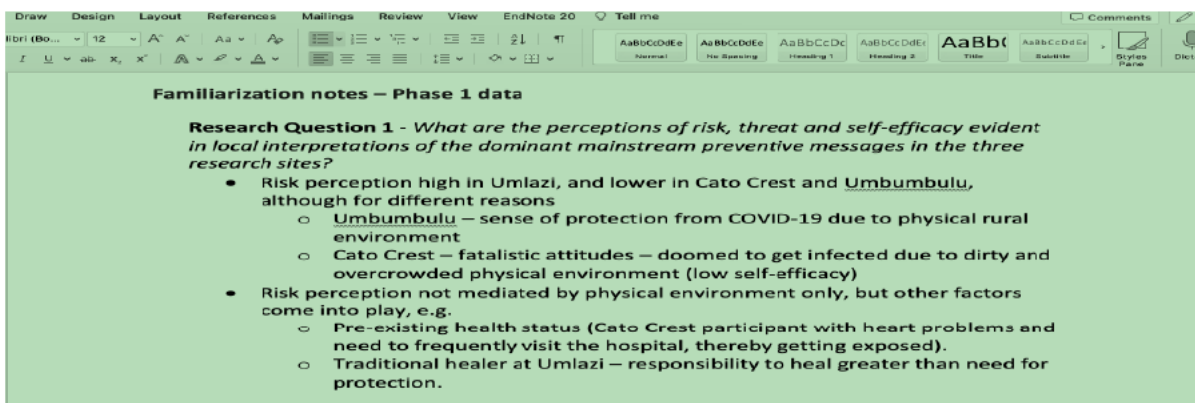


Figure 5.4 – Overall familiarization notes

It was challenging to determine the stage at which I would be finished with data familiarization, as the rereading process tended to reveal new insights that I felt were important. According to Braun and Clarke (2022), the different phases of RTA are not necessarily sequential, but are iterative, with frequent going back and forth between the six phases. As I moved onto the coding phase, I was conscious of the fact that I may possibly find a need to go back to listening to audio recordings and rereading transcripts again.

Phase 2 – Coding

Coding is “the systematic and thorough creation of meaningful labels attached to specific segments of the dataset – segments that have meaning relevant to the research question” (Terry et al, 2017:16). This process involves the reading of the data and then tagging segments of text with some meaning related to the research questions for the study with an appropriate code label, while keeping in mind that some data may remain uncoded if they have no relevance to the research questions for the study (Braun and Clarke, 2022). According to Braun and Clarke (2022), coding in RTA is important in providing insight into the data as it involves deeper analysis through close engagement with the data, as well as in ensuring rigour through a robust and detailed engagement with data, all of which take place in a systematic fashion.

Codes can be regarded as the building blocks of data analysis and a foundation for the development of themes (Braun and Clarke, 2013; Braun, Clarke and Weate, 2016). Coding can be deductive, meaning that it is theory-driven, or it can be inductive, meaning that it is data driven, or it can be a combination of both (Braun and Clarke, 2006). Coding in this study was primarily deductive, as I was applying the PEN-3 Cultural Model not only as a theoretical framework for the study, but also as an analytical frame to help me answer the research questions for the study. As can be seen in Table 5.1, the research questions for the study were closely linked to the theoretical constructs of the pen-3 Cultural Model. According to Braun and Clarke (2012:59), “deductive TA is often critical in its orientation and constructionist in its theoretical framework”. It is, therefore, characteristic of deductive RTA for theory to provide an interpretive lens through which to code and make meaning of the data (Braun and Clarke, 2022).

DOMAIN	POSITIVE	EXISTENTIAL	NEGATIVE
Perceptions RQ1 What are the perceptions of risk, threat and self-efficacy evident in local interpretations of the dominant mainstream preventive messages in the three research sites?	Positive perceptions: <i>knowledge, attitudes, beliefs and values within a cultural context serving as motivators/inhibitors of group behavioural change</i>	Existential perceptions: <i>knowledge, attitudes and beliefs that influence decisions about COVID-19 prevention that could be described as unique to that culture/context</i>	Negative perceptions: <i>knowledge, attitudes, beliefs that negatively influence decisions about COVID-19 prevention</i>
Enablers RQ2 What are the social, structural and cultural factors that influence decision-making around COVID-19?	Positive enablers: <i>local interpretations/metaphors that positively influence health decisions</i>	Existential enablers: <i>local interpretations embedded in cultural beliefs, practices and behaviours that are neutral and have no harmful effects</i>	Negative enablers: <i>local interpretations based on values, beliefs and attitudes known to be counter COVID-19 prevention.</i>
Nurturers RQ3 How do personal and community networks influence the adoption of the dominant COVID-19 prevention messages?	Positive nurturers: <i>friends, family, community members with a positive influence on health decision-making regarding COVID-19.</i>	Existential nurturers: <i>influence of significant others and community contexts in making health decisions and choices within certain traditional values and practices.</i>	Negative nurturers: <i>influence of significant others and community contexts in negatively shaping health decisions and choices that contribute to the spread of COVID-19.</i>

Table 5.1 – Link between the research questions and the theoretical framework as the analytic frame

With the study grounded in a constructionist and critical theory orientation, deductive coding was therefore appropriate. However, I was consciously looking out for inductive codes that may not necessarily be linked to the theory, but which were relevant to answering the research questions for the study. Braun and Clarke (2022) assert that deductive and inductive coding are not dichotomous, but rather more on a spectrum, which means that coding may encompass both inductive and deductive coding.

Coding was done manually, using the Microsoft Word tracked changes function to assign coding labels to the data. Coding can also be done at two different levels, namely semantic, meaning that it captures explicit or surface meaning, or it can be latent, meaning that it captures more conceptual or implicit meaning (Braun and Clarke, 2012). According to Braun and Clarke (2022), semantic codes can be regarded as data driven, meaning that they reflect what was said by participants, while semantic codes can be regarded as researcher-driven, as they reflect the researcher's analytic take with regards to meanings emanating from what participants say.

In this study I coded data at both levels over two rounds of coding. In the first round I coded semantically, only focusing on surface meanings of what the participants were relating. While I was conscious of my theoretical framework as the analytic frame for my data analysis, in the first round, I coded openly, not assigning coding labels to the theoretical constructs of the PEN-3 model. According to Charmaz (2006:49), during the initial coding phase, it is important for the researcher to “remain open, stay close to the data and to keep codes simple and precise”. Accordingly, I wanted to ensure that codes captured what participants were saying, without assigning theoretically driven meaning at this stage. During the second round of coding, I focused more on latent meanings behind what was said by participants. Figure 5.5 provides an example of the latent coding process, with latent deductive codes closely tied to the theoretical constructs of the PEN-3 Model. In RTA, theory is considered important as “it is what gives reflexive TA ..., both its foundation, and its analytic power” (Braun and Clarke, 2022:57).

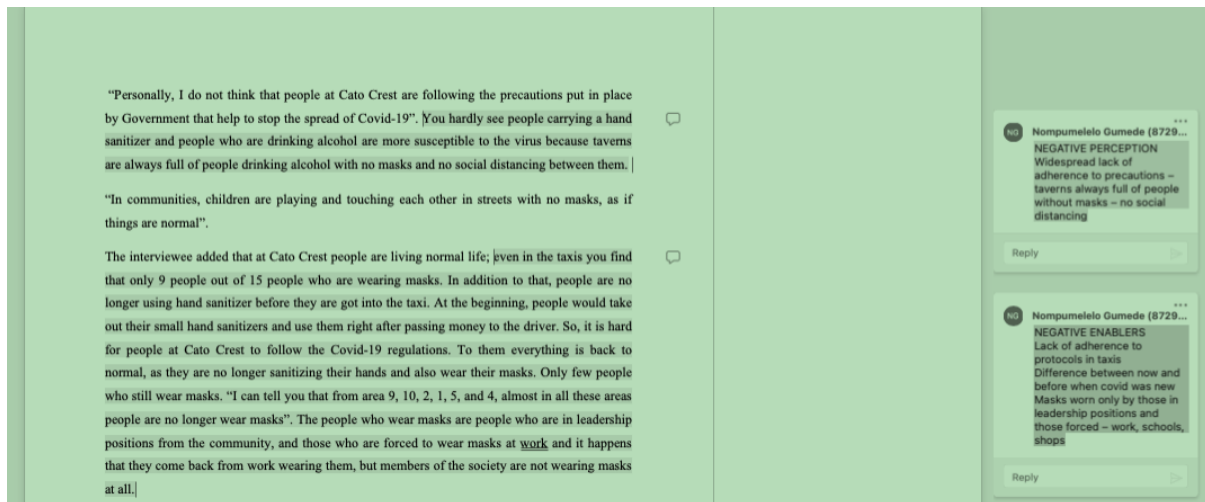


Figure 5.5 – latent coding example

Once all the data had been coded, I then transferred the coding process onto an excel spreadsheet, populating each excel sheet with data from each of the research sites. This is reflected in Figure 5.6, where data from Phase 1 in Umbumbulu is reflected. As can be seen in this illustration, when I transferred codes from Word to Excel, I ensured that participant quotes were included, with participant real names removed and participant reference codes inserted, e.g., P1, P2 and so on. I also created columns that would allow me to assign codes to the theoretical constructs of the PEN-3 model, leaving one column open to note inductive codes that were relevant to answering my research questions, but which were not addressed by the theoretical framework.

Participant comment	Participant ref code	Code - Perceptions	Code - Enablers	Code - Nurturers	Code - Inductive
18:18, 4/2/2021 C19 Study Umbumbulu: I will begin by saying that as a victim of Corona it has been very difficult. I lost a chance of gaining valuable knowledge that was going to make me a successful entrepreneur. My family (excluding me and my mom) was safe; we did not lose a single family member to death. I lost so much. My community does not care about the health and wellbeing of its residents. As a result, young people are unemployed and they are alcoholic/have a drinking problem. Because of alcohol consumption they tend to ignore Covid precautions and mingle with other people in crowds and drink alcohol. Then, they go back to their families who were protecting themselves at home and infect them with the virus. The painful part is that old people contract and sometimes die from the virus, leaving children behind. So, all in all, it starts with employment. This would be avoided if young people were employed.	P1: Umbumbulu, 2 April 2021	NEGATIVE PERCEPTION Community doesn't care about health in general. Young people spreading virus to older people - alcohol - Unemployment			
18:27, 4/2/2021 C19 Study Umbumbulu: I see that there are projects aimed at helping people during this time. But my concern is that the focus is on Covid-19, while some of us cannot even go out to look for jobs. Because of unemployment and closing of schools the youth is unoccupied and that is a problem. Young people are now using drugs. What I am noticing is that most young people around age 16 are falling pregnant during this time (braying face emoji) and there is also a sharp increase in teenage pregnancy. A lot is happening and our lives have changed drastically.	P2: Umbumbulu, 2 April 2021	NEGATIVE PERCEPTION Young girls falling pregnant – belief that it's linked to covid – feeling overwhelmed – too much happening			For young people, government focus is on covid, but their immediate concerns are joblessness.
19:26, 4/2/2021 C19 Study Umbumbulu: Covid-19 destroyed our communities; we can no longer offer our support to the family when there is death in that family. We could not worship like we used to in our churches due to masks. When you are wearing a mask for long it becomes too difficult to breathe in it.	P3: Umbumbulu, 2 April 2021	NEGATIVE PERCEPTION Wearing a mask for too long is difficult. Worshipping with a mask is not the same. Inability to support family in times of death.			loss of family support - death, loss of spiritual support (Bath)
19:27, 4/2/2021 C19 Study Umbumbulu: I was studying in Siphingo. We had to halt our studies due to Covid and if my memory serves me right I would have completed my studies by now. (braying face)	P4: Umbumbulu, 2 April 2021				NEGATIVE IMPACT Loss of opportunity to advance oneself
19:28, 4/2/2021 C19 Study Umbumbulu: Viewing of the deceased body was not allowed, due to this virus, people buried people who may not be their family members.	P4: Umbumbulu, 2 April 2021				NEGATIVE IMPACT Loss of cultural practice of viewing of the deceased body
VOICE NOTE: 03 April 2021 at 08:49: People in my community were not wearing masks on the streets and they were not obeying the curfew and not obeying the fact that alcohol was prohibited. In a taxi, I would say that some people would wear their face masks but they did not open windows. There was no social distancing in stores even though there were markings to encourage social distancing.	P5: Umbumbulu, 3 April 2021	NEGATIVE PERCEPTIONS Widespread non-adherence to precautions – curfew, masks, social distancing, closed windows in taxis, social distancing markings ignored			
VOICE NOTE: 03 April 2021 at 08:51: What I do not like about Covid is that it killed black people mostly. And I wish there was a cure for Covid.	P6: Umbumbulu, 3 April 2021	NEGATIVE PERCEPTIONS Covid kills mostly black people Frustration that there is no cure			
09:17, 4/2/2021 C19 Study Umbumbulu: Covid-19 has affected our communities a lot; we lost our loved ones due to not following the Covid-19 precautions. There are people who still deny the existence of Covid-19, this is due to misinformation caused by lack of education.	P7: Umbumbulu, 3 April 2021	NEGATIVE PERCEPTIONS Denying the existence of covid-19 – belief/attitude Caused by lack of knowledge/education			NEGATIVE IMPACT - loss of loved ones
VOICE NOTE: 04:03 2021 at 09:17: Covid has affected us badly, people are passing away, some are losing their jobs and some live in fear of Covid-19.	P6: Umbumbulu, 3 April 2021	NEGATIVE PERCEPTION People are dying, living in fear. Losing jobs			NEGATIVE IMPACT Losing loved ones
VOICE NOTE: 03 April 2021 at 19:54: I would like to point out that in our local tuck-shops, social distance is hardly practiced, especially when it is packed to its maximum. Another thing, if people are waiting for the transport in the morning, they do not practice social distancing. Even though hand sanitizing is important, but our local tuck-shops do not have hand sanitizers and therefore people do not sanitize their hands.	P5: Umbumbulu, 3 April 2021	NEGATIVE PERCEPTIONS Widespread non-adherence to precautions (social distancing)	NEGATIVE ENABLERS local tuck shops don't have sanitizers – patrons do not sanitise		
VOICE NOTE: 03 April 2021 at 21:31: As a person who was affected by Covid-19, I saw the effects of not practicing social distancing. I work with people and I have to touch and tap or do whatever they require assistance with. In that instance, it becomes a problem because you cannot stand further away from them. You are required to get close in order to do what you are supposed to do to help that person. However, in our communities and people we stay with are not practicing social distancing at all. A person would show you that they want to hug you or offer a handshake especially when they are drunk, even though they know that we live in different times where such things are no longer permitted due to corona virus but people try by all means necessary to touch you.	P1: Umbumbulu, 3 April 2021	NEGATIVE PERCEPTIONS Widespread non-adherence to precautions (social distancing)	NEGATIVE ENABLER Nature of job poses challenge (seamstress) – difficulty in adhering to social distancing. (Is this related to informal business sector? Tuck shops, local seamstress, local traditional healer – all do not have free supply of resources for prevention, making prevention a challenge)	NEGATIVE NURTURERS Alcohol a factor in health decision-making	

Figure 5.6 - coding process transferred onto excel spreadsheet.

data analysis, a researcher can use their own judgement to determine the point at which they stop coding, based on a thorough and consistent process of back-and-forth coding until all the data extracts have been coded. Once coding was completed, I then moved to the next phase of RTA, which is the identification of initial themes, informed by the coding process.

Phase 3: Generating Initial Themes

At this phase of the data analysis process the researcher must start identifying shared patterns of meaning across the data set, by compiling codes that seem to share a core idea or concept, and which might provide a meaningful ‘answer’ to the research questions for the study (Braun and Clarke, 2022). This phase involves the generation and identification of initial candidate themes, which will later be refined and finalized in phases 4 and 5 of the data analysis process. An important consideration at this phase is how themes are defined. Braun and Clarke (2019) identify an important differentiation between topic summaries and themes and advise against the use of topic summaries as themes, as is prevalent in most published TA studies.

Topic summaries are defined as “a summary of everything the participants said about a particular topic, presented as a theme” and are quite distinct from themes in RTA, which are “defined by meaning-unity and conceptual coherence” and as “patterns of shared meaning organized around a central concept” (Braun and Clarke, 2022:77). As I moved to this phase of data analysis, I was conscious of this distinction and sought to generate themes that described broader, shared meanings that demonstrated my analytic take on the data. The example below (Figure 5.8) is a demonstration of the clustering of similar codes that speak to participants’ perceptions of COVID-19 communication in the three research sites for the study. The right-hand side of the table depicts codes that were clustered together as I started this process, and on the left-hand side are the initial candidate themes that I started to generate, based on the shared meaning from the clustered codes.

Difficulties with adherence/Adherence to precautions is difficult	Non-adherence
	Waning adherence - people are tired
	Forced compliance
	Non-conducive community contexts - taxis, functions, traditional healers, funerals
Unmet information needs/Information is problematic	Constantly changing information
	Confusing information
	Information is inaccessible (English/scientific)
	Misinformation
	Information is lacking
Fatalistic attitudes/Prevention is unattainable or too hard/Infection is inevitable	Living conditions in informal settlements
	Have to resume work/school life - can't avoid infection
	Nature of work (traditional healer) is high risk
Positive attitudes/Precautions saved lives	Precautions help - virus is deadly
	Many more would have died if no precautions
	Less funerals due to observance of precautions
COVID is no longer a threat/Denial of existence of covid	Lowering lockdown levels mean less threat
	COVID does not exist
	COVID is not a threat to young people
Mistrust of government/Government can't be trusted	Mistrust of hospitals
	Mistrust of quarantine facilities
	Mistrust of government communications

Figure 5.8 – clustered codes and candidate themes

At this stage, I was aware that these are only initial candidate themes, informed by my analytical take on what I was noticing about patterned meanings in the data set, but that these could potentially change as I progressed into phases four and five of RTA. I was also aware of the possibility for the generation of sub-themes, but I wanted to move to the next phases of theme generation before I could finalize the sub-themes, if any.

Phase four – Developing and reviewing themes

The researcher's task at this stage is to go back to the full dataset to assess whether the data fits the provisional candidate themes identified in Phase 3. The overriding question in the researcher's mind at this phase is whether each theme tells a "compelling story about an important pattern of shared meaning related to the dataset" and whether themes collectively "highlight the most important patterns across the dataset in relation to your research questions" (Braun and Clarke, 2022:102).

At this phase of the data analysis process, I went back to the candidate themes and read them against the data extracts related to each cluster of code labels and candidate theme. I was particularly interested in establishing whether each candidate theme was easily identifiable, with clarity on what it includes and excludes, and whether there were meaningful data to evidence the theme. It was also important to establish whether each candidate theme conveyed something important that tells a compelling story in relation to the research questions for the study (Braun and Clarke, 2021). I was aware that some candidate themes may be condensed into one, some may be confirmed, while some may be discarded completely, if deemed not to adequately address the research questions for the study.

Figure 5.9 depicts an example of two candidate themes that were two distinct themes in Phase 3 - *“Fatalistic attitudes/Prevention is unattainable or too hard/Infection is inevitable”* and *“Difficulties with adherence/Adherence to precautions is difficult”*. As I went back to the dataset corresponding to these two candidate themes, I noted that these two candidate themes were centered around one core concept of difficulties in adhering to COVID-19 precautions. I then decided to condense these two candidate themes into one theme – *“Infection is inevitable-prevention is too hard”*, as can be seen in Figure 5.10. Guided by the corresponding dataset, I isolated key factors that participants were saying with respect to difficulties in adhering to COVID-19 precautions. Since these participant responses were in relation to the second research question for this study, which seeks to explore social, cultural and structural factors that influence decision-making around COVID-19, I then grouped the corresponding codes according to socio-cultural and structural factors that could possibly form sub-themes for the overarching theme of *“Infection is inevitable-prevention is too hard”*.

Fatalistic attitudes/Prevention is unattainable or too hard/Infection is inevitable	Living conditions in informal settlements
	Have to resume work/school life - can't avoid infection
	Nature of work (traditional healer) is high risk
Difficulties with adherence/Adherence to precautions is difficult	Non-adherence
	Waning adherence - people are tired
	Forced compliance
	Non-conducive community contexts - taxis, functions, traditional healers, funerals

Figure 5.9 – Two separate candidate themes from Phase 3

Infection is inevitable - prevention is too hard	<ol style="list-style-type: none"> 1. Overcrowded structural environment not conducive to prevention. 2. Lack of resources for prevention (water, sanitizers, masks) – socio-economic 3. Psychosocial factors – COVID fatigue/waning adherence 4. Collectivist cultural values (communal smoking/drinking, community funerals, traditional functions) 5. High-risk work environments (seamstress/traditional healer/commuting to work in taxis)
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Figure 5.10 – two candidate themes condensed into one theme in Phase 4.

All candidate themes were checked using the same criteria, and most themes were revised, with some being discarded as they didn't directly address the research questions for the study. An example of a discarded theme was a theme on *loss* where participants had talked about loss of loved ones, jobs and study opportunities, family connections, and lost opportunities to celebrate important life milestones like children's birthdays. Whilst this had been important for participants to point out during data collection, I decided at this stage that this insight was not related to any of the research questions for the study, hence the theme being discarded.

I found that this phase was quite time-consuming as it involved a considerable amount of back and forth between the dataset, the code labels and the candidate themes. Once I was confident that this phase had been thoroughly exhausted, I moved on to the 5th Phase, which is the refining and naming of themes.

Phase 5 – Refining, defining and naming themes

During this phase I started the task of defining each theme and exploring how each theme would be named. According to Braun, Clarke and Weate (2016; 2022), at this phase of the data analysis process, it's important for the researcher to be able to define each theme by describing its central organising concept, how it manifests in terms of its scope and boundaries, as well as how it addresses the research question for the study. Further refinement of themes can be expected at this stage, as theme development is a recursive process. In addition to defining each theme, the researcher needs to name each theme, as the names that may have been assigned to themes in phases 3 and 4 may need further refinement.

In defining themes, Braun and Clarke (2022) provide guidance that the definition of a theme should clarify what the central organizing concept is and should also explicate the different manifestations of that theme, and whether the theme has any sub-themes. The definition can

also inform the flow of the report-writing, as this phase can be considered the steppingstone towards Phase 6, which is the writing of the research report.

In working through this phase of data analysis, I went back and forth between the research questions for the study and the theoretical framework as it was important to ensure that the final themes were answering the research questions for the study and were also relating to the PEN-3 Cultural Model, which is the theoretical framework for this study. In addition to this, I was also paying attention to the overall story that was being told by the themes in their totality. In keeping with my Social Constructivist philosophical stance informing this study, it was important for the themes to speak to how participant perceptions were social constructs based on their cultural and contextual realities in the three geographic locations for the study and how these were mediated by the structural environments that they are embedded in.

The tables below present the final themes generated from the data analysis process.

Research Question 1: What are the perceptions of risk, threat and self-efficacy evident in local interpretations of the dominant mainstream preventive messages in the three research sites?	
THEMES	SUB-THEMES
1. Adherence is too hard – infection is inevitable.	<ul style="list-style-type: none"> • Living conditions in informal settlements/rural/township contexts • Non-conducive working environments • Lower lockdown levels – a blessing or a curse?
2. Ambivalent attitudes towards government’s COVID-19 strategy	<ul style="list-style-type: none"> • Mistrust of government • Belief in conspiracy theories
3. COVID-19 is foreign	
Research Question 2: What are the social, structural and cultural factors that influence decision-making around COVID-19?	
THEMES	SUB-THEMES
The rural home for isolation/quarantine	
Preference for home remedies and traditional herbs	
Respect for community leadership structures	
Research Question 3: How do personal and community networks influence the adoption of the dominant COVID-19 prevention messages?	
THEMES	SUB-THEMES
COVID-19 decision-making is mediated by significant others.	Family members as reinforcers of COVID-19 messaging
	Friends – good and bad influencers
Community contexts influence decision-making on COVID-19.	Traditional functions and events challenge prevention efforts
	When sharing is not caring – Ubuntu gets challenged
	Fear of stigma
	Substance abuse impacts on behaviour
Taxi driver attitudes influence prevention efforts.	

Table 5.2 - Thematization according to the research questions for the study

The tables below present the themes as aligned to the theoretical framework for the study.

Perceptions

PERCEPTIONS	POSITIVE	EXISTENTIAL	NEGATIVE
	<i>Positive perceptions: knowledge, attitudes, beliefs, and values within a cultural context that positively influence decisions about COVID-19 prevention, care, and support.</i>	<i>Existential perceptions: knowledge, attitudes and beliefs that influence decisions about COVID-19 prevention that could be described as unique to that culture/context.</i>	<i>Negative perceptions: knowledge, attitudes, beliefs that negatively influence decisions about COVID-19 prevention, care, and support.</i>
Umlazi	Positive knowledge of and positive attitudes towards prevention measures	Ubuntu	Mistrust of government
Umbumbulu	Correct knowledge of and positive attitudes towards prevention measures	Ubuntu	Belief in conspiracy theories
			Mistrust of government
Cato Crest	Correct knowledge of and positive attitudes towards prevention measures	Ubuntu	Belief in conspiracy theories
			Mistrust of government

Table 5.3 - Themes related to Perceptions

Enablers

ENABLERS	POSITIVE	EXISTENTIAL	NEGATIVE
	<i>Positive enablers: Availability, accessibility, acceptability, and affordability of resources needed to support preventive behaviour.</i>	<i>Existential enablers: availability, accessibility, acceptability, and affordability of resources that are traditionally available in the community to support prevention.</i>	<i>Negative enablers: lack of available, accessible, acceptable, and affordable resources needed to promote positive preventive COVID-19 decisions and actions.</i>
Umlazi	The rural home for isolation	Traditional herbs and home remedies	Socio-cultural and structural environment
			Taxi industry non-compliance
			Non-conducive working environment
Umbumbulu		Traditional herbs and home remedies	Socio-cultural and structural environment
			Taxi industry non-compliance
			Non-conducive working environment
Cato Crest	The rural home for isolation	Traditional herbs and home remedies	Socio-cultural and structural environment
			Taxi industry non-compliance
			Non-conducive working environment

Table 5.4 - Themes related to Enablers

Nurturers

NURTURERS	POSITIVE	EXISTENTIAL	NEGATIVE
	Positive nurturers: friends, family, community members with a positive influence on health decision-making regarding COVID-19.	Existential nurturers: influence of significant others and community contexts in making health decisions and choices within certain traditional values and practices.	Negative nurturers: influence of significant others and community contexts in negatively shaping health decisions and choices that contribute to the spread of COVID-19.
Umlazi	Family support	Community support - CBOs	Parties and funerals
Umbumbulu	Family support	Respect for traditional leadership structures	Traditional events
Cato Crest	Family support	Respect for traditional leadership structures	Stigma
			Substance abuse

Table 5.5 - Themes related to Nurturers

Phase 6 – Writing the research report

This phase involves the writing up of research results, based on a thorough analytic process. Contrary to assumptions that writing is not part of the data analysis process, but something that happens after data analysis is completed, writing a research report is “a key component of the analytic process for Reflexive TA, because the analysis is in the writing about your data” (Braun and Clarke, 2021:118). In writing about their data analysis process, Trainor and Bundon (2020:14) state that “themes shifted until the final manuscript was published”, alluding to this fact that writing the research report is a continuation of the analytic process, and not something that happens after data analysis is concluded.

In writing the research report, I also approached the process from this perspective, open to new insights and further iterations of the themes developed in the previous five phases of data analysis.

The full research report for this study is contained in Chapters five and six. Chapter five is the *Findings chapter*, where I present a narrative of research results with all the themes generated,

with illustrative examples from the dataset for the study. Chapter six is the *Discussion of Findings* chapter where I discuss the findings of the study, while making strong connections between the theoretical framework for the study and literature related to the topic for the study.

Conclusion

This chapter provides a detailed account of the data analysis method adopted for this study. I have distinguished between different forms of TA to illustrate to the reader that TA is not one blanket approach for data analysis but that it is multifaceted, with different approaches for conducting TA. I have also articulated my approach to TA, which is Reflexive Thematic Analysis, and justified the use of this data analysis approach by explaining how it is informed by my epistemological and ontological orientation as a researcher. I have argued for the reflexive nature of the data analysis process and have located myself as a research instrument in the study, reflecting on my positionality as a researcher. I have outlined all the phases undertaken in the data analysis process, with illustrative examples of the various steps taken to ensure a thorough and consistent theme-generation process. In the next chapter, I present the research findings for the study, organized according to the themes generated for the study.

CHAPTER 6

FINDINGS CHAPTER

Introduction

This chapter presents the findings of the study organised according to the themes generated through a comprehensive data analysis process as presented in Chapter 5. As explained in Chapter 5, data analysis for this study was inductive, with openness to deductive themes that may be come out of the reflexive thematic data analysis process. This inductive thematic analysis approach means that data analysis was guided mainly by the theoretical constructs of the theoretical framework adopted for this study (Braun and Clarke, 2014), which are *Cultural Empowerment, Relationships and Expectations* and *Cultural Identity*.

It has also been explained in Chapter 5 that while the theoretical framework was also used as an analytical frame for the study, the generation of themes was initially conducted organically, and the themes were later linked to the theoretical framework. In this chapter, the themes that were generated for the study will be presented, supported by excerpts from participants to support their articulation. Themes will be organized according to each research question and will be discussed as such. Analysis of the themes as they relate to the theoretical constructs of the PEN-3 Model will be done in Chapter 7.

Perceptions of risk, threat and self-efficacy evident in local interpretations of the dominant mainstream preventive messages in the three research sites

The first research question for this study explored participants' local interpretations of the dominant COVID-19 messages and the perceptions of risk, threat and self-efficacy evident in these local interpretations. Two major themes were generated in answer to this research question from the data collected in the three research sites, and these were: (1) Adherence is too hard – infection is inevitable and (2) Ambivalent attitudes towards the government's COVID-19 strategy, as can be seen in Table 6.1 below. Each of the two themes has sub-themes that capture how the theme manifested in the data generated for the study.

Each theme and its sub-themes will be discussed in this section, with excerpts from the participants' data generated in the virtual and face-to-face community dialogues.

Research Question 1: What are the perceptions of risk, threat and self-efficacy evident in local interpretations of the dominant mainstream preventive messages in the three research sites?	
THEMES	SUB-THEMES
4. Adherence is too hard – infection is inevitable.	<ul style="list-style-type: none"> • Structural factors mediate COVID-19 decision-making • Non-conducive working environments • Lower lockdown levels – a blessing or a curse?
5. Ambivalent attitudes towards government's COVID-19 strategy	<ul style="list-style-type: none"> • Mistrust of government • Belief in conspiracy theories
6. COVID-19 is foreign	

Table 6.1 - Themes related to Research Question 1

Theme 1 - Adherence is too hard – infection is inevitable

Participants expressed various sentiments pertaining to this theme, with the message that they felt that adherence to the COVID-19 regulations was difficult and that getting infected was almost inevitable due to various factors that impacted on this. Some of these included living conditions in their localities, and difficulties with maintaining vigilance of prevention measures after prolonged lockdown measures. Insights from this theme will be discussed under the three sub-themes for this theme in detail below.

Sub-theme 1.1 - Living conditions in informal settlements/rural/township contexts

Under this sub-theme, participants expressed how their structural environment where they lived prevented them from adopting the prescribed COVID-19 prevention measures. In all three sites participants displayed an understanding of the COVID-19 prevention measures of physical distancing, mask-wearing and hand hygiene and had an awareness of how these were protective against COVID-19 infection. However, in Cato Crest, participants held the perception they were at continued risk of infection with COVID-19 as all these measures were impossible to adopt in their physical environment. Physical distancing and other hygiene measures necessary to prevent infection were considered impossible to implement due to the congested living

spaces in their area and a ‘dirty’ and ‘un-hygienic’ environment, as evidenced in this quote by P3.

I feel I am in grave danger because of the people I live with and the people I board taxis with. Streets in Mayville are overcrowded, and we end up getting in contact with each other unintentionally. Social distancing is impossible, especially in Cato Crest. [...] Cato Crest is dirty, and the sewage system is bad, resulting in sewage bursts every now and then. The municipality does not collect dustbins, this place is very hazardous for one’s health and it makes us easy targets of Covid 19. (P3, Cato Crest WhatsApp Community Dialogue, April, 2021)

This sentiment was re-iterated by P5 who additionally casted doubt on people’s ability to ‘survive’ due to lack of testing for COVID-19 and most people in the area not wearing masks in public spaces.

I have plenty of chances to contract Covid-19. Firstly, we do not get tested for Covid as often as we should, so we won’t know whether we have contracted Covid or not. Secondly, we stay in dirty places. Lastly, we do not wear masks so I doubt that we will survive. (P5, Cato Crest WhatsApp Community Dialogue, April 2021)

At Umbumbulu, where the physical environment may be considered the opposite of Cato Crest as homes are a considerable distance from each other, and each home is characterised by several buildings in the form of a compound, participants still felt that exercising precautionary measures against COVID-19 was a challenge due to lifestyle practices that characterised their rural environment there. This was to the extent of regarding COVID-19 precautions as something foreign in this area and which was only possible in affluent suburbs. In a discussion on precautionary measures taken during events and other traditional functions, P3 felt that this was impossible to achieve in her rural area of Umbumbulu as the concepts of physical distancing and masking were foreign in this community and something that people were not practising.

Following Covid-19 precautions in events is possible in affluent places like Mhlanga Rocks, not in places like Umbumbulu.
(P3, Umbumbulu face-to-face community dialogue, April 2021)

This sentiment was confirmed by fellow participants, as can be seen in the following exchange, pointing to a perception that communal gatherings made it difficult to adhere to COVID-19 precautions due to the general nature of life and living conditions in this rural area:

Participant 2- Covid-19 precautions are not observed in uMbumbulu. Cultural events are happening in the area and things are happening like there is no Covid. You will find young men singing and dancing with no masks and no social distancing.

Participant 4 - You will find people singing and coughing inside a closed room and you will see them carrying on like there is no Corona to be scared of.

(P2 and P4, Umbumbulu face-to-face Community Dialogue, April 2021)

At Umlazi, participants felt that prevention measures against COVID-19 were not working in their local environment, and were only observed in environments where they were forced, such as clinics and malls. When asked about their opinions of the COVID-19 prevention measures, the following exchange ensued, pointing to a perception that the widespread flouting of prevention measures in Umlazi was because such measures were foreign and therefore not something that was practised in this environment.

Participant 5: That does not work in Umlazi.

Interviewer: What do you mean P5?

Participant 3: Those things happen in clinics, in big stores and malls.

Participant 2: People in uMlazi are drinking together; they do not wear masks and they touch each other without sanitizing their hands.

(P5, P3 and P2, Umlazi WhatsApp community dialogue, April, 2021)

Evident in all three research sites is the perception that whilst people are aware of prescribed COVID-19 prevention measures, their application was challenged by the nature of their local environment. In Cato Crest, the physical environment of densely populated informal settlements rendered the application of these measures impossible for residents there, whilst in Umbumbulu and Umlazi, the COVID-19 prevention measures were considered foreign and widely flouted, not as a result of resistance, but simply as a result of how people live together

in these environments. All these collectively colluded to cement the perception that prevention of COVID-19 infection was almost impossible in these local contexts.

Sub-theme 1.2 - Non-conducive working environments

In other instances, participants felt that their working environments and the nature of their work made it difficult to adhere to COVID-19 precautions. A dressmaker in Umbumbulu expressed her frustration about how the nature of her work made it difficult to adhere to precautions as she must take people's size measurements, forcing her to get quite close to people and thereby getting exposed to infection. She had the following to say regarding her work situation.

I am a fashion designer. We design and sew clothes, then that attracts people, causing them to come in our store on a daily basis. You can't say that a person who is visiting your store must stand outside or ask them to sanitize their clothes before getting inside the store. As a store owner I have to make sure that I am always wearing a mask and make sure that I have a sanitizing spray for clothes. Before doing fittings, I sanitize my customer's hands and my hands. However, when I take the fittings I cannot avoid getting too close to the person and we all know that Covid can be transmitted by close contact. I honestly think this is how me and my mother contracted Covid-19.

(P1, Umbumbulu face-to-face Community Dialogue, April 2021)

Important to note in her statement is the fact that despite the elaborate detail taken by her in taking precautions herself in the course of her work, the nature of the work itself (requiring close contact with customers) rendered her helpless against COVID-19 infection, resulting in the perception that precautions were too hard to implement in her context and infection had been inevitable for her due to her work environment.

At Umlazi, a traditional healer (P1) also related the challenges she had faced in trying to adhere to precautions, but how these were oftentimes impossible to implement in her traditional healing practice. Similar to P1 at Umbumbulu, P1 in Umlazi also explains the elaborate detail she took in attempting to protect herself and her patients from infection, but how these were rendered futile by the nature of her job which demanded that she gets very close to her patients during the course of her work.

We did a lot, like having a couple of masks with you. I had to have extras because people would come to me seeking my help and you will find them sick but not wearing masks, I had to give them a mask before consulting them. We had to use hand sanitizers regularly because we touch people in order to heal them. But when you are treating people it's highly impossible that you won't touch them and you are afraid that you might contract the virus while you are helping people and it is a must that you should help them to get well.

(P1, Umlazi WhatsApp Community Dialogue, April 2021)

What is worth noting here is that in all instances, participants reported doing everything in their power to apply COVID-19 prevention measures in their work environments, but still felt inadequately protected from infection due to the nature of their work environments.

Sub-theme 1.3 – Lower lockdown levels – a blessing or a curse?

At the time of the community dialogues with participants in all three research sites, the South African government lockdown measures had been reduced to Level 3, which allowed for the resumption of schooling, returning to work, and less restrictions on community events and funerals, albeit under specified strict conditions relating to physical distancing, masking and other hygiene measures. Whilst Level 3 lockdown measures stipulated several measures that were mandatory in schools, workplaces and other settings requiring the gathering of groups of people, participants felt that these were not being followed, resulting in feelings of helplessness against infection with COVID-19.

At Cato Crest, the perceived inevitability of infection was related to the fact that the lockdown measures that were in place for the resumption of schooling and work were not being followed, resulting in residents facing a risk of infection daily, as can be seen in P3's statement ...

It is very hard because we cannot stay indoors forever. We have to leave our homes and go to work. While we are going to work we meet people while we board taxis, the same people we are trying to stay away to stay protected. So, there is no easier way to stay safe from the virus. Even children go to school and you do not know whether they practice Covid-19 precautions in school and they come back home and you do not know what they bring from school, so it is hard.

(P3, Cato Crest WhatsApp community dialogue, April 2021)

At Umlazi, a similar safety concern was expressed by P4 who felt that the lowering of lockdown restrictions resulted in widespread flouting of COVID-19 prevention measures in her community, leading to perceptions that infection was inevitable.

The chances of us contracting Covid are very high because people are no longer practicing social distancing and there are lesser people wearing masks now. At this lockdown level, we have started visiting each other again and we are not safe, whereas during level 5 we followed all health and safety protocols.

(P4, Umlazi WhatsApp community dialogue, April 2021)

Adding to this sentiment, P5 voiced a similar sentiment through a picture that he shared in the WhatsApp group.



This picture means that Covid-19 changed now than when it hit our shores. When it started we used to sanitize our hands regularly even if we are sitting at home. But now we are used to it.

(P5, Umlazi WhatsApp Community Dialogue, April, 2021)

This sentiment was corroborated by P7, who also felt that the fear and novelty of COVID-19 had waned significantly, resulting in the widespread flouting of COVID-19 prevention measures in their community.

I agree with you. It's different from the time it was introduced to us, the level of fear and anxiety has dropped significantly and people are too relaxed about it now.

(P7, Umlazi WhatsApp Community Dialogue, April, 2021)

At Umbumbulu, P4 also stated that there was a marked difference in people's behaviour when comparing the earlier stages of Level 5 lockdown restrictions to the current Lockdown level 3, suggesting that the loosening of lockdown restrictions opened up new opportunities for people to get infected as there were more community events and gatherings that were taking place, and which were exposing people to infection with COVID-19.

During the early days of lockdown people respected and followed Covid-19 precautions in gatherings. This was also because a lot of people did not do traditional ceremonies and weddings, it was only funerals that were conducted and people obeyed as they were scared. It's different now.

(P4, Umbumbulu face-to-face community dialogue, April 2021)

As evidenced in the above, whilst the lowering of lockdown levels allowed people more movement and resumption of activities like work, schooling and social events, which brought economic relief, it simultaneously decreased communities' self-efficacy to prevent COVID-19 infection.

Theme 2 - Ambivalent attitudes towards government's COVID-19 strategy

In engagements with participants in the three research sites, there was acknowledgement that the government precautions against COVID-19 were necessary and should be followed. Participants in all three research sites talked about the value that they saw in COVID-19 precautions prescribed by government, and how these precautions had helped to save lives. Evidence of this can be seen in the following excerpts from participants in the three research sites.

Personally I would say that precautions for Covid-19 such as social distancing and sanitizing hands are helping us a lot. In my view, if there were no precautions in place a lot of people would have passed on and many people should have contracted this virus. Precautions that were put in place by government helped us a lot.

(P3, Cato Crest WhatsApp community dialogue, April, 2021)

For me, the easiest way to protect ourselves from this virus is to follow health and safety protocols by always wearing masks. Wearing a mask is not easy though because it is

sometimes hard to breathe with a mask on, but it is equally important to wear it as it protects us from Covid-19. We must sanitize our hands or wash our hands regularly if we are at home to protect ourselves from contracting Covid-19. We must also avoid overcrowded places and keep practicing social distancing. This should be done irrespective of whether the COVID-19 cases are more or less in the country.

(P1, Umlazi WhatsApp Community Dialogue, April, 2021)

I would say that I am trying by all means to decrease my chances of contracting Covid-19. I say this because I sanitize my hands regularly and I wear a mask.

(P5, Umbumbulu WhatsApp Community Dialogue, April, 2021)

However, there was evidence of conflicting attitudes towards these measures, stemming from suspicion of the government's motives. This resulted in ambivalent attitudes being observed from participants in all three research sites, with evidence of mistrust of government communications, health facilities and officials in relation to anything concerning COVID-19.

The manifestation of these ambivalent attitudes was evidenced in how participants talked about government communication on COVID-19, government health facilities and government officials in charge of the COVID-19 response. There was also evidence of government mistrust because of the conspiracy theories and misinformation that was circulating in the three research sites. These are discussed as two sub-themes of this main theme, which are; 1) Mistrust government, 2) Belief in conspiracy theories. Each of these sub-themes will be discussed separately below.

Sub-theme 2.1 - Mistrust of government

Under this sub-theme, participants in all three research sites expressed various sentiments related to government communications, health facilities and officials. Whilst there was a general acknowledgement of government COVID-19 messages as necessary and useful, there was an equal questioning of motives behind this communication. This was particularly so in Cato Crest and Umbumbulu where participants had a lot of unanswered questions that pointed to viewing government communication with suspicion.

At Umbumbulu, participants felt that the South African President's predominantly English COVID-19 addresses to the nation were not understood by the majority of the people in the

area. Similarly, the addresses by scientists on national television were found to be difficult to understand as these were also predominantly in English.

The time Zuma was still a president we said that we wanted an educated president. Then there was Ramaphosa who blinds us with his big English words and his scientists. He says things that no one understands here and no-one has the guts to disagree with him. (P2, Umbumbulu face-to-face Community Dialogue, April, 2021)

In Cato Crest, some participants displayed a general misunderstanding of the science behind COVID-19 as they couldn't understand how the government would know that there was another COVID-19 wave coming. This, to them, signalled government's possible collusion with some external forces that were responsible for "manufacturing" COVID-19, as can be evidenced from this excerpt by P2.

Some people are asking how did the government know about something before it hit our South African shores? The government is telling us about the third wave approaching - how did they know about it? This means that the government knows how this virus is manufactured.

(P2, Cato Crest face-to-face Community Dialogue, April, 2021)

In short, while the government's warnings about an approaching wave of COVID-19 was meant to aid prevention efforts, in this community it increased mistrust and suspicion of government motives.

At Umlazi, participants displayed a misunderstanding of the government warning system for the different levels of lockdown that were being implemented. Participants expressed confusion at what lower lockdown levels meant, with some interpreting lower lockdown levels as meaning less of a threat of COVID-19, as expressed in the sentiment by P2 below.

People did not understand that moving down to lower levels was to ease the economy of the country and to ensure that businesses are operating and that does not mean that Covid-19 is no longer existing. Moving down to lower levels made people to be so relaxed and that belief is caused by the fact that government contradicts the continuous existence of Covid-19 with the movement of alert levels from 5 to level 1.

(P2, Umlazi WhatsApp Community Dialogue, April, 2021)

Participants in all three research sites additionally displayed mistrust of government health facilities. The designated government hospitals were not preferred due to the perception that people with COVID-19 died at these facilities and going there would therefore mean certain death, as can be seen from the quote below.

We were told that people should stay away from the hospital because my friends believed that the oxygen they use at hospital is the one causing many deaths. They say that if someone enters the hospital premises needing oxygen they do not live to tell the tale. The time I had Covid-19, I was so sick that I even had asthma attacks. My family was saying that I needed to be taken to hospital. I said to them I rather die at home than go into a hospital. My friend who is also a Sister at hospital said that I must not go to hospital. I listened to them and I was able to recover at home.

(P1, Umbumbulu Face-to-face community dialogue, April, 2021)

In Cato Crest, a similar sentiment was voiced by the participants who stated that government quarantine facilities were not trusted by the community due to rumours that quarantine facilities were tents put up in sports grounds. As participant 1 below stated, people were reluctant to go to the government quarantine sites because of this fact.

Also, the practice of quarantining is a bit scary to some people. This is because of the misinformation people have about these quarantine sites. Rumours are that if you go to a quarantine site, you stay in a tent and that tent will be in a sport grounds.

(P1, Cato Crest, Face-to-face Community Dialogue, April, 2021)

At Umlazi, participants did not report any negative attitudes towards government health facilities, but only stated that people preferred to use their rural homes for quarantine and/or isolation.

In Cato Crest, while participants spoke of having their own community structures that usually step up to address community issues of concern, they were also sceptical of these community structures and officials as they were felt to have acted selfishly and not in the interests of the community at large during the COVID-19 crisis. When asked about the role the government

community structures played during the peak of COVID-19, the following discussion ensued, displaying dissatisfaction with the actions of these community structures.

Facilitator - What was the role played by these area committee during the time when Covid-19 was still rife?

Participant 1 - The Area Committee is a committee that deals with communal problems like arranging meetings with ward councillors in order to reach out to the community about that problem. Like during the Corona outbreak, there were trucks coming into our area. These trucks brought food and hand sanitizers for the community of Cato Crest. The people who were responsible for distributing these items to us were area committee, ward committee and ward councillor. They were the ones who did shenanigans instead of giving items to people.

Participant 2 - They did nothing other than abusing their power and stealing from poor people.

Participant 1 - If I had encountered a problem, I would have called the Covid-19 toll free number than calling the committee members. Some people got food parcels, but they were not received on merit.

Participant 2 - Only politically connected and popular people received food parcels.
(P1 and P2, Cato Crest Face-to-face WhatsApp Community Dialogue, April, 2021)

A similar sentiment was voiced by participants in Umlazi, who also felt that their politically elected community leaders were too removed from the community, and could therefore not be trusted, as expressed by P10 below.

I can't say that the councillors (politically elected community leaders) must relay the message because they hardly visit the people in the community. Maybe if it can be relayed in the church and in shebeens then it can be trusted in the community.

(P10, Umlazi WhatsApp Community Dialogue, November, 2021)

As can be seen in this quote, churches and local shebeens were more trusted in the community than government officials.

Sub-theme 2.3 – Belief in Conspiracy Theories

Under this sub-theme, participants expressed various sentiments pointing to a proliferation of conspiracy theories that were being shared in the communities, mostly through social media channels, as can be seen in the following exchange.

Participant 1 - There was a video, I cannot confirm how true is the information on that video. It shows people inside a boardroom, saying that they want to reduce the human population.

Participant 6 - I remember seeing that video, it said that Bill Gates wants to control the population.

Participant 1- Yes, it said that he wants to eliminate more people from Africa.

(P1 and P6, Umlazi face-to-face community dialogue, April 2021)

At Umbumbulu, the conspiracy theories linked government to grand schemes to depopulate the country, as evidenced in P2's quote below.

People are even making jokes about this virus; the joke was Ramaphosa (South African President) must tell us how many people he needs and we will give him our baby daddies. Everyone thinks that Covid-19 was invented so that it should help in decreasing the human population.

(P2, Umbumbulu WhatsApp Community Dialogue, April, 2021)

In Cato Crest, there was evidence of the circulation of conspiracy theories and misinformation on social media that attributed the spread of COVID-19 to the South African government. Participants compared the previous president's response to Ebola to that of the current president's response to COVID-19 and concluded that the current government had been complicit in allowing the spread of COVID-19 in the country, and further suggesting that the previous president had protected South African citizens, while the current one had failed. Below is an excerpt from a discussion between the Facilitator and P2, providing testament to this.

Participant 2- Another thing that is making us question government's response to Covid-19 was the government's response to Ebola. There was an Ebola outbreak in

other African countries but it did not cross borders and infect South Africans like Covid-19.

Facilitator – According to your knowledge, what did the government do to prevent Ebola from coming to South Africa?

Participant 2- There is a group on Facebook that I am part of. We share our ideas and point of views in the group. It is said that Zuma’s government did everything to make sure that Ebola does not come to South Africa. It is also said that Ebola was more lethal to children than adults. So people say Ramaphosa made it possible for Covid-19 to come to South Africa.

(P2, Cato Crest Face-to-face Community Dialogue, April, 2021)

These conspiracy theories were mentioned in all three sites for the study, resulting in people feeling that there was nothing they could do to prevent COVID-19 infection. As P2 in Umbumbulu summed it up ... “There are a lot of things happening behind us and we are just sacrificial lambs to the ANC’s government.” (P2, Umbumbulu, April, 2021).

The social, structural and cultural factors that influence decision-making around COVID-19.

Research Question 2: What are the social, structural and cultural factors that influence decision-making around COVID-19?	
THEMES	SUB-THEMES
The rural home for isolation/quarantine	
Preference for home remedies and traditional herbs	
Respect for community leadership structures	

Table 6.2 - Themes related to Research Question 2

The second research question for the study explored social, structural and cultural factors that influence how people made decisions on COVID-19 prevention. This research question was premised on the understanding that health decision-making in general, is influenced by a variety of factors in the socio-cultural and structural context where people live (Airhihenbuwa, 2007). The aim was therefore to explore what these factors are, as well as how they influence decision-making around COVID-19 prevention in the three geospatial communities. In line with the theoretical framework for this study, the aim was to explore positive, existential and negative socio-cultural and structural factors that influence decision-making on COVID-19 in the three communities. The three main themes that were generated out of the data analysis process for this research question were:

- 3) The rural home for quarantine/isolation
- 4) Preference for home remedies and traditional herbs
- 5) Respect for community leadership structures

Theme 3 - The rural home for quarantine and isolation

Participants in Umlazi and Cato Crest related that they had used their rural homes for quarantine and isolation in instances where family members got infected with COVID-19. The majority of residents of Umlazi, a peri-urban township and Cato Crest, an informal settlement in an urban area, reside in these areas, but have a rural home as either their primary or secondary home (Visagie and Turok, 2021). In discussions on how they made decisions around how to handle situations where one person in the home was infected with COVID-19, participants in

these two areas mentioned that their rural homes had been useful resources that served as either quarantine or isolation facilities in the event of infections within the family home.

For example, in the following extracts, participants relate personal experiences where they had used their rural home to isolate family members who had gotten infected. Accounts of this phenomenon included instances where the infected person was the one who was moved to the rural home to isolate there, as can be seen with P1 from Umlazi, who stated ...

My friend works at PMB in a hospital. He tested positive and he moved away from home to stay in Mkhuze for two weeks because there was a baby at home. Mkhuze is his rural home. (P1, Umlazi face-to-face community dialogue, April, 2021)

At other times, it was the vulnerable un-infected members of the household that were moved to the rural home to protect them from infection by someone who was already infected in the household, as can be seen from this account by P6 of Umlazi township.

My father contracted Covid-19 and so my grandmother and a baby were moved and they had to go and stay in rural areas because we believed that they are at high risk of being infected. (P6, Umlazi face-to-face community dialogue, April, 2021)

In relating these stories of the rural home as a convenient resource for isolation, participants related that this was something common in the area and was not only confined to their personal stories, as can be observed from P6's statement below.

Many other people I know went to rural areas to isolate because it was believed that Covid -19 is not as much of a problem there as it is in urban areas. Urban areas are more overcrowded than rural areas.
(P6, Umlazi face-to-face community dialogue, April, 2021)

A participant in Cato Crest also related her own story of how she made the decision to go to her rural home to isolate when she got infected with COVID-19, explaining that she did this out of concern for the protection of her family.

I isolated at home. I have my own place in the rural areas. So during that time I left home and I decided to stay alone in my place. I wanted to protect my family. I would ask people to leave me food at the door. Thankfully I survived.
(P1, Cato Crest face-to-face community dialogue, April, 2021)

This finding provides a unique insight into how the socio-cultural context of the participants influenced how people made decisions to protect their families in instances where one family member was infected with COVID-19. Interesting to note in this phenomenon is that participants demonstrate how their unique structural context of having a rural home in addition to the urban and peri-urban home contributed to the decisions they made around COVID-19 as they were faced with different health decisions to make from time to time.

Participants felt that the rural setting allowed space for them to observe social distancing because of how the rural homes are structured, with several dwelling structures in one home compound, as opposed to the single dwelling structures found in townships and informal settlements. This allowed people the opportunity to isolate in their rural homes as isolation in their houses in the informal settlements and townships was not possible.

Theme 4 - Preference for home remedies and traditional herbs

It emerged that the preference for the rural home as an ideal place for isolation for those infected with COVID-19, was also linked to the fact that the rural areas had the additional benefit of easy access to traditional herbs for the treatment of COVID-19 symptoms. As P3 from Umlazi stated,

Also, in rural areas there are traditional and natural medications to use for Covid. Things like Umhloniyane (Artemisia) and gum tree leaves for steaming.
(P3, Umlazi face-to-face community dialogue, April 2021)

For P4 at Umbumbulu, steaming with traditional herbs was considered protective from infection with COVID-19, while for P1, steaming with traditional herbs and other home remedies was therapeutic, and reportedly aided the healing process from COVID-19.

I try to steam every time after meeting people. I do this because I want to protect myself and my family from this virus.

(P4, Umbumbulu WhatsApp community dialogue, April 2021)

Facilitator - What do you think helped you in the journey of recovery at home?

P1: I used to steam maybe five times a day. I won't say that it was easy but it is do-able because you are sitting at home the whole day doing nothing. I used everything that was recommended for steaming. I used camphor blocks, Vicks and everything that opens up a tight chest. People did not die at home.

(P1, Umbumbulu WhatsApp community dialogue, April 2021)

For P1 at Cato Crest, who was recovering from COVID-19, and who had received medical help from a government health facility, she added steaming with traditional herbs to her medical treatment regimen, suggesting a supplementation of western medicine with traditional African medicine.

I would confidently say steaming saved my life, because there was nothing else that opened up my nasal passage and lungs like steaming. I used to steam three times a day and then drink the pills that were prescribed for me at the hospital.

(P1, Cato Crest face-to-face community dialogue, April 2021)

The use of home remedies was reportedly widespread, with some discouraging others from taking their sick children to hospital facilities, and instead advising them to use these home remedies, as hospitals were considered breeding grounds for COVID-19 and regarded as the very places where people would get infected with COVID-19.

Another woman was told by the security guard at the hospital gate that her child did not have Covid-19; it was just flu. He also warned her that if she gets inside the hospital the child will contract Covid-19 from other patients. He gave her a number of home remedies to use on her kid. Covid does not discriminate if you have a medical aid or not, people die in hospitals.

(P3, Umbumbulu face-to-face community dialogue, April 2021)

This aversion to government medical facilities and reliance on home remedies and traditional herbs for prevention and treatment was more pronounced at Umbumbulu and to a lesser degree at Cato Crest. While participants did not specifically relate any use of traditional herbs and

home remedies themselves at Umlazi, the traditional healer who was a research participant alluded to the fact that despite stringent movement restrictions, she received a considerable number of patients at the height of the COVID-19 pandemic, pointing to a widespread reliance on traditional medicine in this area, when people experienced COVID-19 symptoms.

We did a lot, like having a couple of masks with you. I had to have extras because people would come to me seeking my help and you will find them sick but not wearing masks, I had to give them a mask before consulting them. We had to use hand sanitizers regularly, this is because we touch people in order to heal them. When you are treating people its highly impossible that you won't touch them and you are afraid that you might contract the virus while you helping people and it is a must that you should help them to get well.

(P1, Umlazi WhatsApp community dialogue, April 2021)

Taken against the background of the unique socio-cultural contexts in the three research sites, where communities rely on traditional medicine for prevention and treatment of health issues, this finding demonstrates how these socio-cultural factors influenced what decisions people made in relation to COVID-19 prevention and treatment. While government medical facilities had been prepared and made ready to handle large influxes of people at the height of the COVID-19 pandemic, evidence shows that communities mostly rejected these facilities in preference for their solutions, based on longstanding practices within their communities, as well as on lack of trust on government interventions, fuelled by misconceptions and misinformation.

Theme 5 – Preference for community leadership structures

Under this sub-theme, participants in the three research sites displayed a preference for already-existing community leadership structures for credible responses to COVID-19 in their communities. In some instances, these structures had already acted in ways that communities appreciated in responding to COVID-19, whilst in others participants felt that they had the potential of being more effective in responding to the COVID-19 crisis.

In Cato Crest, participants felt that the War Room, a multidisciplinary community leadership structure that was known to have effectively tackled community problems before, was a

powerful problem-solver that had been under-utilized in responding to COVID-19. This is evidenced by P3's statement below.

If there are problems in my community, they are solved by the war room. The war room is powerful in a sense that it communicates with certain stakeholders, municipality and other government departments. The war room has influence and resources that would assist people with information and ways to help prevent the spread of the virus. The war room is the engine of this ward because challenges faced by this community are reported to the war room.

(P3, Cato Crest WhatsApp Community Dialogue, April, 2021)

In addition to the War Room structure, participants also felt that the Area Committees and Ward Committees had been successful in encouraging citizens to adhere to COVID-19 precautionary measures and were therefore an important community resource that had influence on COVID-19 decision-making in the community. As P1 in Cato Crest stated ...

If there are problems in our community, they are fixed by the Area Committee and the Ward Committee. If there is a meeting, a hand sanitizer is provided at the entrance of the venue, and then the chairs are arranged with the social distancing in mind. Before the meeting starts, the community is reminded that they must follow Covid-19 precautions because Covid-19 is still here.

(P1, Cato Crest WhatsApp Community Dialogue, April, 2021)

Umlazi participants mentioned various initiatives that had they had already seen where community-based organizations had been seen as responding effectively in providing relief for some community members affected by the COVID-19 crisis in their community. Participants in this research site had additional ideas for more effective communication based on what was the usual practice in the area. Both these insights are reflected in the following quotes by participants in this location.

Usually, a convoy of cars with loudspeakers convey the message to the masses. I think this could be used to create awareness about Covid-19. These cars could be driven around the community, while the message is being played repeatedly.

(P5, Umlazi WhatsApp Community Dialogue, April, 2021)

During lockdown community organizations would come and give people food parcels or give them soup and bread, as things were hard to some of the community members.
(P3, Umlazi WhatsApp Community Dialogue, April, 2021)

Umbumbulu participants similarly mentioned other community leadership structures that they felt could have been utilized more effectively, as they felt that these already enjoyed community support and would have been effective in influencing decision-making on COVID-19. These were community meetings usually led by Traditional Leaders and Sports Federations that were already in existence in their communities.

What we can do to resolve this issue is to call a community meeting. Issues are solved at community meetings in our area.
(P5, Umbumbulu WhatsApp Community Dialogue, April, 2021)

As a part of Sports Federation in uMbumbulu, there are certain issues that need to be resolved by board members as well as community members. I think that these kinds of platforms should be used to create awareness about Covid-19. Every opportunity and platform must be used to spread the message.
(P1, Umbumbulu WhatsApp Community Dialogue, April 2021)

Personal and community networks that influence the adoption of the dominant COVID-19 messages

The third research question for this study explored how personal and community networks influence the adoption of COVID-19 prevention messages. Table 4 below presents all the themes generated for this research question.

Research Question 3: How do personal and community networks influence the adoption of the dominant COVID-19 prevention messages?	
THEMES	SUB-THEMES
COVID-19 decision-making is mediated by significant others.	Family members as reinforcers of COVID-19 messaging
	Friends – good and bad influencers
Community contexts influence decision-making on COVID-19.	Traditional functions and events challenge prevention efforts
	When sharing is not caring – Ubuntu gets challenged
	Fear of stigma
Taxi driver attitudes influence prevention efforts.	

Table 4 - Themes related to Research Question 3

Theme 6 - COVID-19 decision-making mediated by significant others

In this section I discuss the themes related to research question 3 for the study, which explores how personal and community networks influence the adoption of the dominant COVID-19 prevention messages. Findings indicate that the personal networks that had the most impact in influencing others to adopt COVID-19 prevention measures were family and friends, as they reportedly played a significant in influencing others with regards to COVID-19 precautions.

Sub-theme 6.1 - Family members as reinforcers of COVID-19 messaging

In describing how they made decisions around COVID-19 prevention, participants in the three research sites for the study mentioned friends and family as having a significant influence over the decisions that they took to prevent infection with COVID-19. Participants in all three research sites related how mothers, fathers, aunt and siblings influenced what decisions they made around COVID-19 prevention, as can be seen in the following quotes.

Since my parents are always encouraging us to wear masks, my younger siblings have joined in as well, they are always checking if I am wearing a mask and sanitized my

hands. So, I would say that everyone around me played a role in creating the awareness about COVID-19.

(P5, Umbumbulu WhatsApp Community Dialogue, April, 2021)

My family plays a very important role in making sure that I am safe. When I go out they remind me to carry my small sanitizer and wear a mask properly and they always say we must respect the Government's ruling and protocol at all times so that we do not get exposed to COVID-19.

(P3, Cato Crest WhatsApp WhatsApp Community Dialogue, April, 2021)

My mother is the one person who is always telling us to wash our hands and wear masks. She is monitoring everything from social distancing to hand-washing. She does all this but there are slip-ups from us every now and then, but we try our best. (P4, Umlazi WhatsApp WhatsApp Community Dialogue, April, 2021)

As can be seen from the quotes above, the family member role was framed as that of “encouraging”, “reminding”, “monitoring” and “telling”, suggesting that family members mainly served to re-enforce the already-existing COVID-19 messaging.

In other instances, some participants associated the occupation of their family members as being the reason why that family member would constantly encourage people to protect themselves from COVID-19. At Umlazi, one participant related that her aunt works in the cleaning industry, and this fact made her more vigilant on teaching everybody in the household on the importance of protective behaviours from COVID-19, as can be seen in the quote below.

My aunt had a great influence on me. She works in a cleaning company, so she came home with cleaning essentials and she taught us about the importance of dis-infecting surfaces. She made sure that the whole family was safe by providing us with masks and hand sanitizers. (P4, Umlazi Face to Face Community Dialogue, April, 2021)

At Umbumbulu, some participants also associated the positive influence of family members to their professional roles of being nurses and police officers, as can be seen in the following quotes.

My father, since he is a Station Commander at the Police Station used to encourage us and check if masks are worn before we go out. My mother also works for the Department of Health, and she also encourages us to wear masks.

(P5, Umbumbulu WhatsApp Community Dialogue, April, 2021)

I stay with my sister, who is a Nurse and she always tells us here at home to be on the lookout. She says this because she is a front-line worker and she saw how deadly COVID-19 is. (P2, Umbumbulu, WhatsApp Community Dialogue, April, 2021)

Important to note here is the fact that in all these occupations cited, the application of COVID-19 precautions is an integral part of the job. This is an interesting insight which shows that for this cadre of workers, their work responsibilities were transferred back to the home, even though they were primarily part of their occupation, and thus served to reinforce COVID-19 messaging within the home environment.

Sub-theme 6.2 - Friends – good and bad influencers

For other participants, friends' behaviours and attitudes influenced the decisions that they took regarding COVID-19 prevention. In some instances these were good influences that encouraged them to protect themselves from COVID-19, but in others, friends' influence negatively impacted on protective behaviours. For young people, the feeling was that their social influence of close friends negatively influenced decision-making on COVID-19 prevention, as expressed by this participant.

We as young people do not like to follow regulations that seek to protect us from the virus. If you do anything to protect yourself, you'll be laughed at.

(P2, Umbumbulu Face-to-face Community Dialogue, April, 2021)

The implication here is that this is something that is generally the case with young people, and the resultant effect is that other young people that go against this "norm" will be penalised through being laughed at, thus perpetuating this negative behaviour with regards to the prevention of COVID-19.

Other participants felt that it was difficult to dissociate themselves from long-standing practices of sharing cigarettes and drinking bottles within their social circles. They felt that the practice of sharing was ingrained from childhood and was difficult to stop now due to COVID-19, and that this was something that exposed them to possible infection with COVID-19.

I try to stay safe but the truth is us smokers we share cigarettes and that increases our chances of contracting the virus. People who drink alcohol also do the same. The problem here lies on our upbringing, we were taught to share from a very young age. (P2, Umbumbulu WhatsApp Community Dialogue, April 2021)

However, there were instances where participants felt that their friendship circles were positive influencers in decision-making around COVID-19. A participant in Cato Crest mentioned how friends helped keep each other accountable and protected from COVID-19, as evidenced in the quote below.

When my friends and I were on vacation, we made sure that we followed COVID-19 precautions thoroughly and we even had discussions about this virus. (P1, Cato Crest WhatsApp Community Dialogue, April, 2021)

Interestingly, at Umbumbulu, while discussing COVID-19 vaccination, a participant stated that she would vaccinate if her boyfriend wanted both of them to vaccinate, as can be seen in the following quote.

To be honest, for some of us it's our boyfriends and girlfriends. If my boyfriend were to say we must go vaccinate then I would go vaccinate. I am waiting for him to tell me to go then I will go. (P9, Umbumbulu Face-to-Face Community Dialogue, November 2021)

This belief was not particular to women being influenced by their male partners only, but a similar phenomenon was reported by male partners at Umlazi, who also mentioned how their female partners influence their health decision-making, as can be seen from the quote below.

It's usually the wife that reminds the husband to take his pills or fetch the pills from the clinic. (P5, Umlazi Face to Face Community Dialogue, November 2021)

Theme 7 - Community contexts influence COVID-19 decision-making

Participants additionally reported being influenced by various community contexts in how they made decisions to protect themselves from COVID-19. These ranged from traditional functions and events, the spirit of Ubuntu getting challenged, fear of stigma and the impacts of substance abuse on preventive behaviour.

Sub-theme 7.1 – Traditional events and functions challenge prevention efforts

In Umbumbulu participants related how people continued to mingle at traditional functions and events that took place in the area, despite COVID-19 restrictions that limited numbers of people attending events. One participant stated that there was widespread flouting of COVID-19 precautions in the area at traditional functions and events, as can be seen in the conversation below.

Participant 1- COVID-19 precautions are not observed in uMbumbulu.

Participant 2- Cultural events are happening in the area and things are happening like there is no Covid. You will find young men singing and dancing with no masks and no social distancing.

Participant 4- You will even find people singing and coughing inside a closed room and you will see them behaving like there is no Corona to be scared of.

(P1, P2, P4, Umbumbulu WhatsApp Community Dialogue, April, 2021)

Participants felt that this affected their ability to protect themselves in such community contexts.

Sub-theme 7.2 – When sharing is not caring – Ubuntu gets challenged

At Umlazi it was felt that the attendance of funerals was mandatory for neighbours, according to their cultural value of Ubuntu as a community. Participants felt that even though they may want to protect themselves from infection, not going to a funeral due to COVID-19 restrictions was not an option as it goes against their cultural value of Ubuntu, as can be seen from this exchange below.

Participant 3- Even though numbers are limited at funerals you still find many people at the house of the deceased. Some people leave after the funeral but others remain behind and sleepover.

Participant 5- Yes, this happens because we still have the spirit of Ubuntu and this thing is built within us - the innate need to support other people in their time of grief.

(P3 and P5, Umlazi Face-to-Face Community Dialogue, April, 2021)

Equally, in Umbumbulu, participants also felt that some of the COVID-19 prevention guidelines went against the spirit of Ubuntu that they were taught from a young age. As P2 stated,

I try to stay safe but the truth is us smokers we share cigarettes and that increases our chances of contracting the virus. People who drink alcohol are also at risk. The problem here lies on our upbringing, we were taught to share from a very young age to share. It's the spirit of Ubuntu in us.

(P2, Umbumbulu WhatsApp Community Dialogue, April, 2021)

Sub-theme 7.3 – Substance abuse impacts on behaviour

In Cato Crest, participants cited the overuse of alcohol and drugs in their community as contributing factors in their ability to protect themselves or not. It was felt that people who drink alcohol and those who use drugs like to share whatever they are taking and this exposes them to dangers of infection with COVID-19. In the following exchange, participants in Cato Crest expressed their views about this issue.

Participant 1: People drink alcohol to create their own happiness here. I have a brother who does not care about this virus, they drink alcohol from the same bottle, no social distancing observed and I don't think that they wash their hands before going out of the loo in those clubs. If they are in the house, you have to force them to wash their hands more often. They are the problem we are facing.

Participant 6: People are still sharing cigarettes, you will find five people sharing one cigarette and they do not sanitize their hands.

Participant 3: People who drink alcohol are the real problem here.

Participant 7: Alcoholics and drug users are not safe because they like sharing. Drug users use the same needle, five people might use the same needle.

(P1, P3, P6, and P7, Cato Crest WhatsApp Community Dialogue, April, 2021)

Sub-theme 7.4 – Fear of stigma

Participants in Cato Crest also felt that some people would not disclose that they had COVID-19 due to the fear of stigma attached to COVID-19. It was felt that similar to what had been seen with HIV stigmatization, people with COVID-19 were similarly stigmatized if they revealed that they were infected, as they would be seen as dangerous to others in the community.

Participant 3 - There are people who walk around with this virus in our communities, but they don't disclose their COVID-19 status because of the stigma attached to it. People in Cato Crest like stigmatising sick people.

Participant 1 - I think they are scared that they will be discriminated, this is like the HIV stigma. People were scared to disclose due to the stigma that was attached to HIV/AIDS. It is the same thing with COVID-19 as well. People are scared that their friends will discriminate them and they will treat them different because they are scared that they might transfer the virus to them, given how highly contagious COVID-19 is. Also, the practice of quarantining is a bit scary to some people, so they just keep quiet even if they are infected.

(P1 and P3, Cato Crest WhatsApp Community Dialogue, April, 2021)

Interestingly, stigma was not mentioned as a factor that impacted on prevention efforts in Umbumbulu and Umlazi.

Theme 8 - Taxi driver attitudes limit prevention efforts

In all three research sites, participants related how the public transport taxi industry influences whether they are protected from infection or not. Participants felt that taxi drivers did not take enough precautions to ensure the safety of passengers in their taxis. At Umbumbulu, participants felt that taxi drivers expose passengers to infection with COVID-19 despite the fact that they are issued with hand sanitizers and masks to issue to passengers. Participants had the following to say regarding the conduct of taxi drivers in general:

The taxis have sanitizers, Hlokomela (Taxi Association) distributed hand sanitizers to all the taxis but the taxi drivers are not using them and they keep them inside the cubby

hole un-used. Hand sanitizers are kept inside the cubby hole for no particular reason. You find that there are 25/26 passengers in one taxi. I sent two pictures in our WhatsApp group, showing all passengers not wearing masks in a taxi. The taxi was full. I think that it was me and some other man who were wearing masks. The windows were closed and there was a great chance of cross infection.

(P1, Umbumbulu WhatsApp Community Dialogue, April, 2021)

Similarly, in Cato Crest and Umlazi, participants felt that taxi driver attitudes limited their ability to protect themselves when in these vehicles.

I would say that some people make it hard, for instance in a taxi full of passengers you will find that only four people besides you are wearing a mask and carrying their own hand sanitizers. In some instances you will find even the driver does not provide people with hand sanitizers.

(P2, Umlazi WhatsApp Community Dialogue, April, 2021)

Participant 2- Taxi drivers used to carry a bottle of hand sanitizer in their taxis. But now, they do not carry hand sanitizers and they do not check if people inside the taxi are wearing their face masks or not. Taxi drivers do not care about the COVID-19 precautions. They only care about their profits.

Participant 3- You find masks tied next to the taxi driver's seat like some sort of a decoration. They have totally abandoned the use of hand sanitizers.

(P2 and P3, Cato Crest WhatsApp Community Dialogue, April, 2021)

Participants felt that this significantly limited their ability to protect themselves from COVID-19 as they felt powerless in these community contexts.

Conclusion

This chapter presented the findings of the study, organised according to the various themes generated from the data analysis process. The themes presented have demonstrated how communities interpreted COVID-19 messaging and how this influenced their assessment of risk, threat, and self-efficacy to protect themselves from COVID-19. Additionally, the findings shed light on socio-cultural and structural factors that influenced decision-making on COVID-

19 and personal and community networks that impacted preventive behaviours against COVID-19. Additionally, participants were able to identify possible entry points for an intervention that would be locally relevant for them at the personal, extended family and neighbourhood levels.

The findings in this chapter were presented in answer to the research questions for the study, without necessarily linking them to the theoretical constructs of the PEN-3 Model. The next chapter presents a discussion of these findings, linking the findings to the literature review as well as to the theoretical domains of the PEN-3 Cultural Model for Health Communication.

CHAPTER SEVEN

DISCUSSION OF FINDINGS: THEORETICAL CONTRIBUTIONS

Introduction

This chapter expands on the data presented in the previous chapter to offer a critical discussion of the findings. Findings are discussed in relation to the extant literature presented in Chapter Two, the conceptual and theoretical constructs undergirding the study and the research questions for the study. The primary domains of the theoretical framework from the PEN-3 model (Cultural Empowerment, Relationships and Expectations and Cultural Identity) will specifically be discussed in relation to its application and relevance for each research site for the study. This enables comparability of the data to address the research questions to elucidate similarities and differences in community interpretations of COVID-19 messaging, social, cultural and structural factors that influenced decision-making on COVID-19, and personal and community networks that influenced the adoption of health behaviours recommended for COVID-19 prevention.

The study's findings are discussed according to the nine elements generated through the juxtaposition of the Cultural Empowerment and Relationships and Expectations domains of the PEN-3 Model. These are 1) Positive Perceptions, 2) Existential Perceptions, 3) Negative Perceptions, 4) Positive Enablers, 5) Existential Enablers, 6) Negative Enablers, 7) Positive Nurturers, 8) Existential Nurturers, and 9) Negative Nurturers. These are represented in table 7.1 below.

CULTURAL EMPOWERMENT AND RELATIONSHIPS & EXPECTATIONS			
Domains	Positive	Existential	Negative
Perceptions	1	2	3
Enablers	4	5	6
Nurturers	7	8	9

Table 7.1 – Nine categories from the Relationships and Expectations and Cultural Empowerment domains

The discussion of the three elements of Positive Perceptions, Existential Perceptions, and Negative Perceptions provides insights into the first research question for this study, which sought to explore local interpretations of COVID-19 communication and how they impact perceptions of risk, threat, and self-efficacy in the three research sites. The discussion of the three elements of Positive Enablers, Existential Enablers, and Negative Enablers interrogates the second research question for this study, which explored social, structural, and cultural factors that influence decision-making around COVID-19 prevention. The discussion of the Positive Nurturers, Existential Nurturers, and Negative Nurturers is related to this study's third research question, which explored personal and community networks that influence the adoption of the dominant COVID-19 prevention messages in the three research sites. The discussion of the *Cultural Identity* domain will follow and will shed light on the acceptable and feasible pathways for the development of locally relevant COVID-19 prevention messaging, which is the fourth research question for this study.

Perceptions

Table 7.2 below presents the positive, existential and negative perceptions stratified according to each research site.

PERCEPTIONS	POSITIVE	EXISTENTIAL	NEGATIVE
	Positive perceptions: knowledge, attitudes, beliefs, and values within a cultural context that positively influence decisions about COVID-19 prevention, care, and support.	Existential perceptions: knowledge, attitudes and beliefs that influence decisions about COVID-19 prevention that could be described as unique to that culture/context.	Negative perceptions: knowledge, attitudes, beliefs that negatively influence decisions about COVID-19 prevention, care, and support.
Umlazi	Positive knowledge of and positive attitudes towards prevention measures	Ubuntu	Mistrust of government
Umbumbulu	Correct knowledge of and positive attitudes towards prevention measures	Ubuntu	Belief in conspiracy theories
			Mistrust of government
Cato Crest	Correct knowledge of and positive attitudes		Belief in conspiracy theories

	towards prevention measures		
			Mistrust of government

Table 7.2 - positive, existential and negative perceptions stratified according to each research site.

Positive Perceptions

According to the PEN-3 Model, “the positive aspects of behaviour and culture must be identified as the first priority” (Airhihenbuwa and Webster, 2014:8). This is done to ensure that positive aspects of the cultural environment that impact on health decision-making are identified and promoted. In this study, Positive Perceptions are defined as knowledge, attitudes, beliefs and values within a cultural context that positively influence decisions about COVID-19 prevention, care and support. Positive Perceptions identified in the study were 1) Good knowledge of and positive attitudes towards COVID-19 prevention measures.

Good knowledge of and positive attitudes towards COVID-19 prevention measures

In this study, findings show that in all three sites, participants displayed good knowledge of the COVID-19 prevention measures and related instances where they ensured that they adhered to them, displaying positive attitudes to these prevention measures. This is an interesting finding as a mobile rapid survey that had been conducted in South Africa in 2020 during the first wave of COVID-19 had shown that a big proportion of the population had low knowledge rates on COVID-19, thus affecting their ability to employ effective prevention strategies (Burger et al., 2020).

The field work for this study was conducted in 2021, one year into the COVID-19 pandemic in South Africa, and a year after the rapid mobile survey was conducted. Findings of this study show that knowledge levels had increased amongst the population, demonstrating that the government COVID-19 communication strategy had at least been able to increase knowledge levels amongst the general population in the preceding year when knowledge levels were generally low amongst the population. A study by Adebisi and others (2022) in 2021, also confirmed that South African families showed high levels of awareness of COVID-19 prevention measures and reported adherence to these measures, although due to its online

nature, this quantitative study could have missed a significant number of the South African population.

Participants in Cato Crest felt that the prevention measures had helped curb the spread of COVID-19, reporting that even though initially people had not taken COVID-19 seriously, with time when they started seeing people getting infected and dying, people started to view the prevention measures positively and started adhering to them. At Umlazi, correct and accurate knowledge on COVID-19 prevention was displayed by participants, as they were able to identify prevention measures and the major symptoms of COVID-19 infection. In relation to the PEN-3 model, accurate knowledge and positive attitudes would be regarded as a Positive Perception, as it may have had a positive impact on behaviour change for the prevention of COVID-19. However, in this study, adherence to COVID-19 prevention measures varied, with some participants reporting adherence, whilst others reported widespread non-adherence. This is in line with scholarly evidence in health communication that knowledge does not necessarily lead to behaviour change (Govender, 2021).

As a result, despite increased levels of knowledge on COVID-19 prevention measures, evidence from this study shows that precautionary measures were largely ignored or found to be difficult to implement due to various cultural and structural factors that prevailed in the three research sites. For example, whilst participants in all three sites for this study reported good knowledge of physical distancing as a prevention measure against COVID-19 infection, there were widespread reports of this measure being ignored or perceived as impractical to implement, with participants relying on steaming practices with traditional medicines as a perceived prevention measure against COVID-19 infection.

According to Turner-Musa, Ajayi and Kemp (2020), over and above the knowledge that people may receive, their cultural perceptions and beliefs about diseases also contribute to whether they will adopt new behaviours or not. In other contexts, Dutta, Ellers and Jayan (2020:10) have stated that top-down persuasive communication messages only serve to amplify the structural inequalities that exist within communities, and they advocate instead for COVID-19

communication responses that “work toward structural transformation that enables collective preventive behaviours at community level”.

Future pandemic communication efforts need to be grounded in people’s lived experiences, taking into consideration the inadequacy of one-way information dissemination and working from the bottom up, with community voices being central to the development of health communication interventions that recognise the structural inequalities that may render some sections of the population more vulnerable to infection than others.

Existential Perceptions

Existential Perceptions in this study are defined as knowledge, attitudes, and/or beliefs that influence decisions about COVID-19 prevention, care, and support in a way that could be described as unique to that culture. According to Airhihenbuwa and Webster (2004:10), existential perceptions “are often not positive or negative but do reflect certain characteristics and qualities that help explain certain values of the people”. Existential beliefs and attitudes are explored to establish those neutral attributes inherent in a people’s culture and belief system, which can be leveraged for health communication without changing them (Yick and Oomen-Early, 2008). In this study, data shows existential beliefs and factors that are part and parcel of the three communities’ everyday lives, which can be harnessed for positive health outcomes regarding COVID-19. The identified existential perceptions were 1) the spirit of ubuntu, 2) the preference for home remedies and traditional herbs, and 3) the respect for community leadership structures.

When sharing is not caring - Ubuntu gets challenged

The perception that COVID-19 restrictions robbed them of their cultural value of Ubuntu was expressed by participants in Umlazi and Umbumbulu. Findings from participants in Umlazi and Umbumbulu showed that these communities valued the sense of collective community responsibility that characterized their cultural background. Participants referred to this as Ubuntu, which is a Nguni term that refers to “the ability in an African culture to express

empathy or kindness to someone, the reciprocities that can be shared out of humanity and in solidarity, and support in building and instilling moral ethics” (Modise, 2021:6).

Participants mentioned instances where COVID-19 restrictions meant foregoing these cultural values that were important to them, such as congregating around neighbours when there was a death, including on the day of the funeral. Participants felt that this was something that they could not forego, so they resorted to flouting COVID-19 precautions and attended the funerals of neighbours in their numbers. For participants in this study, Ubuntu represented their collective Cultural Identity, as they felt that this was what characterised them as a community – the collective sense of taking care of each other. This included activities like the sharing of cigarettes and alcohol, which they felt they could not stop as the teaching of Ubuntu was ingrained in them from a young age. In places like Umbumbulu, for example, community gatherings such as weddings and other traditional functions were attended in numbers, with dancing and singing practiced at these events, although these were considered high-risk activities for COVID-19 and were mandated against in terms of government regulations at the time.

Although subject to varied interpretations (Gade, 2017), the ideology of Ubuntu places importance on communal cohesion in African societies through group solidarity, a central component to African societies’ survival. Several scholars have proposed that Ubuntu can be a useful tool to deploy in facilitating health promotion at community level (Lubombo and Dyll, 2018; Mulaudzi et al., 2022; Iwuoha, Ezeibe and Ezeibe, 2020; Ngondo and Kyueva, 2021). For Lubombo and Dyll (2018:114), the concept of Ubuntu “could be considered a crucial aspect that can be deployed in HIV/AIDS communication involving (South) African PLHIV”, as “ubuntu values can provide individual motivation for PLHIV to embrace and mobilise others to practice healthy behaviours”. Similarly, in the COVID-19 pandemic, various scholars have deliberated on the concept of Ubuntu and how it can be leveraged for better community responses in responding to COVID-19 and future pandemics.

In exploring the restrictive hospital visitation policies for COVID-19, that prevented family members from visiting their sick relatives in hospitals, Mulaudzi et al. (2021:1) concluded that whilst the non-visitation policy was aimed at protecting family members and hospital staff from infection with COVID-19, it resulted in care that was devoid of the values of Ubuntu as “caring and visitation of the sick is regarded as an example of Ubuntu”. They recommended an incorporation of the concept of Ubuntu in hospital care for COVID-19, which could be realised through a case-by-case application of the non-visitation policy, and not a blanket approach as had been employed by the South African government.

Contributing further to the debate on incorporating the cultural value of Ubuntu to addressing COVID-19, Chigangaidze, Matanga and Katsuro (2021) have argued that Ubuntu provides opportunities for dealing with challenges posed by COVID-19 and should be adopted in psychological and social work interventions as a philosophy in the fight against COVID-19. The authors assert that in opposition to western ethics that prioritise the individual as autonomous in health decision-making, Ubuntu philosophy “views the individual as being nothing without the community, and the community being nothing without the individual”, thereby emphasizing the relationship between the individual and the community as paramount (Chigangaidze, Matanga and Katsuro, 2021:322).

Whilst the cultural value of Ubuntu is a positive one, and which represents an existential perception, according to the PEN-3 Model, the prevailing COVID-19 prevention communication framed the cultural practices associated with the expression of Ubuntu as negative, simultaneously rendering Ubuntu a negative perception, meaning that it had a negative impact on COVID-19 prevention efforts. This is an interesting finding, which suggests that sometimes positive values in a cultural context can run counter the prevention measures necessary to prevent negative health outcomes. The PEN-3 Model stipulates that negative perceptions should be addressed and possibly targeted for change in health intervention messaging and does not explicitly provide guidance for project implementers on how ambiguities in cultural values and health promotion can be handled if and when they arise.

This study's findings reveal that the enactment of Ubuntu in these research sites was for upholding community values of mutual care and support during good (cultural functions) and bad (funerals) times and was clearly a resource that carried people throughout the course of the pandemic. The findings show that community expectations of communal living overrode COVID-19 safety concerns, meaning that the perceived risk of losing the cultural identity embedded within Ubuntu was stronger than that of contracting COVID-19. This underscores the centrality of culture in pandemic communication, as it demonstrates the ineffectiveness of prescriptive, one-way communication that addresses the individual outside of their cultural context, which is what Dutta (2021) refers to as hegemonic communication. At the same time, however, this finding presents opportunities for health communicators to rethink and/or re-imagine how communities can be involved in health-decision-making in a way that provides space for communities to define for themselves how they can effectively respond to the threat of COVID-19, with Ubuntu as an asset, rather than a liability.

In arguing for culture-centred health communication that draws on community voices in seeking solutions for health problems affecting communities, the thesis of this study is that communicative solutions during pandemics should draw on positive aspects inherent in communities' cultural values as was evidenced in the Kerala government's COVID-19 response in India, that saw the establishment of community kitchens that were set up to feed the needy, reflecting a sense of community care and support (Dutta, Elers and Jaya, 2020). With the attendance of funerals and other community functions interpreted as an expression of Ubuntu in these research sites, pertinent issues that arise include the need to explore how this concept could be harnessed for positive health outcomes in future risk communication during pandemics. For example, participants reported how family and community members around them helped with bringing traditional herbs for steaming whilst they were sick with COVID-19, demonstrating the sense of Ubuntu in these small actions of support.

Future intervention planners could consider how the concept of Ubuntu can be further mobilized to promote group and individual responsibility in times of emergency health risks, where messages can be framed to encourage collective responsibility for the prevention of

infections, invoking a sense of mutual care and support for ensuring community health, instead of individual health. A community-engaged pandemic communication response that is participatory could explore the co-creation of solutions with communities, that ensure the value of Ubuntu is upheld, but without exposing communities to adverse health outcomes. This is a critical consideration that can move the field of risk communication forward in future health emergencies.

Negative Perceptions

Negative Perceptions refers to knowledge, values and/or beliefs that negatively influence decisions about COVID-19 prevention, care and support. According to Airhihenbuwa and Webster (2004), conventional health behaviour change interventions usually pay attention to only negative perceptions, while ignoring positive and existential perceptions. In the PEN-3 Cultural Model the negative perceptions are explored last, as a way of foregrounding the positive and existential aspects of a community's culture. In this study, negative perceptions identified were 1) mistrust of government, and 2) belief in conspiracy theories. These are discussed in more detail below.

Mistrust of government

In this study, evidence demonstrates that participants in all three research sites had high levels of government distrust. This lack of trust in government was evident in perceptions expressed by participants that government hospitals, government communication and government officials could not be trusted with regards to the COVID-19 response. The relationship between citizen trust in government and adherence to government-driven health communication is documented in several studies, mostly showing that when there is high trust in government, citizens will demonstrate a high adherence to health promotion measures, and vice versa (Whembolua and Tshiswaka, 2020; Siegrist and Bearth, 2021).

In Liberia during the 2014-2016 Ebola outbreak, Arthur et al. (2022) investigated community trust in government and in non-governmental organizations, and observed that trust in international NGOs (iNGOs) was higher than trust in government, concluding that in future

pandemics, governments may need to forge closer ties and working relationships with iNGOs to ensure increased trust at community level. A further exploration by Tsai, Morse and Blair (2020) for the Ebola outbreak in the same period in Liberia revealed that when government changed its strategy and enlisted the services of local intermediaries embedded within communities for door-to-door educational campaigns, levels of trust increased significantly, suggesting that these local intermediaries were more credible and thus more trustworthy in their communities.

An overriding perception with regards to government hospitals was that admission into a government health facility would lead to certain death. As a result, participants related various instances where these facilities were rejected based on this perception. This is not new, as a similar phenomenon has been reported in Chikafu, Mutero and Chimbari's (2022) investigation of health-seeking behaviours for non-communicable diseases amongst a rural KwaZulu-Natal community, where participants reported avoiding government hospitals due to the perception that people die when presenting with these conditions at government hospitals. Fear of hospitalization has also been well documented during the different Ebola outbreaks in West African countries where patients avoided Ebola Treatment Centres due to the negative perceptions prevalent in these communities about the negative outcomes experienced at these government health facilities (Richards et al., 2019).

In addition, participants felt that the government's communication on COVID-19 was confusing and inaccessible. President Ramaphosa's 'family meetings' were in English and isiZulu-speaking participants in Umbumbulu felt that this made them inaccessible to most of the population there, because of this language barrier. This is despite isiZulu being South Africa's most spoken language, with 24,4% (13,56 million people) of the population speaking the language. The scientific terminology that scientists used when addressing the nation on developments with COVID-19 was perceived to be difficult to understand, further rendering this communication inaccessible to the participants in this site. At Umlazi, participants felt that the lowering of COVID-19 lockdown levels, based on the adjusted risk strategy that the South African government had put in place, caused confusion as the general perception was that lower

lockdown levels meant lower risk of COVID-19. In Cato Crest, some participants expressed confusion at how the government could predict another wave of COVID-19 approaching, interpreting this as meaning that the government was somehow complicit in ‘manufacturing’ COVID-19.

The above findings demonstrate the multi-faceted nature of language, in that it is not only about translation of communication into local languages, but also about the technicality of concepts related to COVID-19 and how participants in this study grapple with trying to decipher and make meaning of the various terminology that surfaced with COVID-19. While South Africa has a language policy that recognises all 12 official languages in the country (Republic of South Africa, 1996), and indeed ensured the translation of most COVID-19 communication into all the official languages (GCIS, 2022), the English language still predominantly dominated the COVID-19 communication landscape both globally and locally in the country (Kretzer and Pfeiffer, 2022). In addition, COVID-19 brought with it a surge of new terminology such as ‘social distancing,’ ‘COVID-19 waves’, ‘flattening the curve,’ and many others that populations had to learn and make sense of in a short space of time. The scientific jargon that prevailed in the media at the time also served to cause more confusion as communities in the three research sites struggled to make sense of the complicated scientific terms that were used. Evidently, the combination of the two phenomena (language and terminology) colluded to render COVID-19 communication incomprehensible and confusing to most of the participants in this study.

According to Kretzer and Pfeiffer (2022), when the health information needs of a population are inadequately served by governments, the proliferation of misleading information circulating on social and other media platforms causes an ‘infodemic’, rendering populations even more vulnerable to misinformation and fake news, which, in turn, leads to mistrust in government, especially when government is the chief communicator. Future pandemic communication efforts should therefore consider language, not only in terms of translation into other languages, but also in terms of how communities can be included in defining and

localizing new concepts and terminology in ways that ensure better understanding of meanings inherent in such terminology and concepts.

In this study, this lack of trust in government can be regarded as a *Negative Perception* as it directly influenced communities' aversion towards government health facilities and reduced trust in government communication on COVID-19, as well as in community-based political leadership. Indeed, evidence showed high trust (89%) in the South African government as an information source at the beginning of the pandemic in 2020 (IPSOS, 2020), and a steep decline by 2022 at 21% (Edelman, 2020), pointing to a need to rethink the role of government in health communication, especially during health emergencies such as COVID-19 (Gumede, Durden and Govender, 2022).

Arguably, the South African COVID-19 communication response, as encapsulated in their COVID-19 SBCC strategy, involved extensive community mobilization and stakeholder engagement, through the support of local and international NGOs (GCIS, 2022). However, despite these efforts, these negative sentiments towards government prevailed, suggesting the powerful influence of what people see and experience in informing and cementing perceptions, regardless of concurrent government communication and community mobilization. As a result, we see a conflict between the GCIS's positive self-appraisal of their COVID-19 communication strategy (GCIS, 2022) and people's experiences on the ground.

For future pandemic communication efforts, Dutta (2021:95) offers some insights that can move the field of pandemic communication forward with his concept of "margins of the margins", which suggests that some sectors of the community are erased from discursive spaces, silencing their concerns, in this case, the mistrust of government. A pertinent question to ask, Dutta (2021:95) argues, is "whose voices are missing from these discursive spaces?". When participants in this study question the credibility of government facilities, communications and politicians, their voices should be heard, and government's role as a chief communicator should be interrogated, as some of the discontent expressed by participants in this study stems from issues that predate the COVID-19 pandemic. In this study, answering

this question would ensure the democratization of participative spaces at the margins so that people's lived experiences are acknowledged, and their voices are incorporated into rethinking government's role in future pandemic communication.

In her critique of COVID-19 communication in South Africa, Govender (2021) argues that when the health response excludes the communities directly affected and infected by COVID-19, this directly impacts on the uptake of preventive measures and negatively affects behaviour change efforts. This is a phenomenon that was observed in the HIV and Ebola responses, where the exclusion of communities in providing communicative solutions resulted in the rejection of preventive measures and diminished trust in government as a credible source of information (Campbell and Cornish, 2010; De Vries et al., 2015). It is therefore imperative for future pandemic responses to incorporate authentic community engagement that prioritizes community voices through dialogue (Airhihenbuwa et al., 2020), instead of the predominantly public health and health promotion approach that characterised the COVID-19 communication landscape in South Africa (Govender, 2021).

Belief in conspiracy theories

Evidence from this study shows widespread beliefs in conspiracy theories on COVID-19, which is evidence of the existence of Negative Perception, as this negatively influenced COVID-19 containment efforts at community level in various ways. Some of the conspiracy theories linked the South African government to the spread of COVID-19 in the country, and some had origins distinct from the South African government, mostly implicating Bill Gates in elaborate schemes to depopulate Africa. At the heart of these conspiracy theories was the belief that COVID-19 was man-made with the intent to depopulate countries. Sources of conspiracy theories were mainly social media, with reports of videos and messages circulating on these platforms. A similar finding was made by Gagliardone et al., (2021) where a social media exploration of conspiracy theories in South Africa and Nigeria revealed strong narratives around the involvement of Bill Gates in the manufacturing of COVID-19, including around vaccines for COVID-19.

The phenomenon of conspiracy theories has been studied and explored before the advent of COVID-19 (Douglas et al., 2017, 2019; van Prooijen and Douglas, 2018). These studies have argued that events and/or phenomena that spark rapid societal changes serve as stimulants of conspiracy theories (van Prooijen and Douglas, 2018), and that this poses significant challenges to behaviour change efforts as they have negative consequences for the adoption of government-recommended behaviour change efforts (Douglas, 2021). The proliferation of conspiracy theories related to COVID-19 was not unique to South Africa, but was widespread globally, and took different forms depending on the political and socio-cultural context of each geographic region. Resistance to the adoption of COVID-19 preventive behaviours such as mask-wearing and social distancing due to beliefs in conspiracy theories was observed in other countries like the USA (Romer and Jamieson, 2020), Italy (Lovari, 2020; Rovetta, 2021), Brazil (Ricard and Medeiros, 2020; Kalil et al., 2021) and others.

Some studies have linked the belief in conspiracy theories to lower socio-economic status amongst those that believe them (Romer and Jamieson, 2020), political and psychological motivations (Uscinski et al., 2020) as well as cultural orientation (Biddlestone, Green and Douglas, 2020). In this study, the above three factors may be linked to the widespread belief in conspiracy theories as participants in all three research sites came from lower socio-economic backgrounds, suggesting that they could be more easily swayed by conspiracy theories. Participants also displayed politically motivated beliefs that predated COVID-19, where the current and previous presidents' containment strategies were analysed based on these pre-existing political affiliations. Interesting to note, however, is that Biddlestone, Green and Douglas (2020) assert that a collectivist cultural orientation may be associated with positive responses to pandemic communication and that the COVID-19 infodemic is more likely to affect individualistic versus collectivist cultures. In this study, findings showed high susceptibility to conspiracy theories despite the collectivist cultural orientation of the research participants, suggesting that these authors' findings may be limited to the Western cultural context where their study was conducted.

With the direct link between conspiracy theories and avoidance of preventive measures being well established, various suggestions have been made for how conspiracy theories could be dealt with to reduce their harmful effects. According to Islam et al. (2021), rumours and conspiracy theories spread online as well as offline through word of mouth, necessitating a need for a bottom-up approach to risk communication and community engagement which should ideally include all sectors of the community including religious leaders, youth, schools and other community stakeholders to ensure that culturally compelling and context-appropriate communication strategies are co-developed with communities to counter the negative effects of conspiracy theories. One of the strategies that have been adopted by governments in the wake of false rumours when an emergency strikes, is that of social listening, where the government works closely with local communities to ‘hear’ what rumours are circulating, using social media as well as interpersonal listening strategies, and then to devise strategies to circumvent false rumours before they take root (Stewart and Arnold, 2018).

Whilst this strategy was adopted by the South African RCCE TWG, and such rumours and false information may have been counteracted through debunking strategies, the findings of this study point to the ineffectiveness of these strategies as conspiracy theories prevailed regardless. According to Leburu et al., (2022), once the South African social listening reports were collated, communicative responses to the rumours, conspiracy theories and misinformation would be informed by health scientists and COVID-19 technical experts and widely circulated through multi-media platforms. This debunking of conspiracy theories through scientific correction was the main method utilized to deal with their influx through various media and interpersonal platforms in the South African context. Considering the pervasive nature of conspiracy theories, and their mostly harmful impact on health behaviour change, critical questions to be considered in future pandemic responses are the involvement of community voices in dealing with conspiracy theories.

The phenomenon of ‘backfire effects’, where corrections to conspiracy theories sometimes serve to strengthen the belief in the conspiracy theory, has been reported in other studies (Hart and Nisbet, 2012; Nyhan and Reifler, 2010). Recent scholarship on conspiracy theories suggests an alternative constructivist and democratic approach of “deliberative citizen

knowledge platforms” which should involve both scientists and the public in analysing which forms of knowledge are truth, instead of leaning “on a blind faith in experts and/or the ruling truth” (Harambam, 2021:113). Such an approach leans towards a more participatory and critical paradigm, with community voices at the centre of pandemic communication through the fostering of authentic dialogue that opens space for the interrogation of sometimes competing ‘truths’. As Harambam (2021:112) aptly states “the ironic truth of debunking efforts may ultimately be that it is not so much the truthfulness of information that counts, but people’s social distance to the producers and adjudicators of knowledge”. The South African government’s propensity towards a public health COVID-19 response, largely driven by scientists and leaving large sections of the population behind, may have contributed to this social distance between scientists and the public. Culturally centred participatory pandemic communication (Dutta, 2021), that is centred on the opening of discursive spaces for the ‘margins of the margins’, presents an opportunity to close this social distance between science and the public, through genuine engagement with communities in dealing with conspiracy theories.

In this study, there is evidence that conspiracy theories circulated mostly through online social networks, particularly WhatsApp and Facebook, which are the most accessible social media networks in the three research sites. Instead of the one-way debunking communication strategy that was mainly utilised by the South African GCIS, together with the RCCE TWG, WhatsApp and Facebook social media platforms are possible avenues for the creation of these ‘deliberative citizen knowledge platforms’, which facilitate dialogue between scientists and the public, such that instead of the current social media ‘communities’ that are organised around similar interests, multi-interest ‘communities’ are established, particularly to open a dialogic space for the discussion of conspiracy theories as they emerge. In this study, it was clear that this was a need in the three research sites as some participants had several questions pertaining to circulating conspiracy theories, but which were not answered through the existing debunking strategy at the time.

It is indeed the argument in this thesis that COVID-19 (including subsequent pandemics) communication needs to capitalise on the positive enablers in a society, and leverage on those to co-create communicative solutions that are grounded in the community’s socio-cultural context, with authentic community voices being prioritized through genuine community participation. Whilst conspiracy theories may have been a negative perception in the three

research sites, the social media connectivity of participants in the study, was a positive enabler that could have been harnessed for the promotion of dialogic virtual spaces for open discussion on conspiracy theories.

Enablers

ENABLERS	POSITIVE	EXISTENTIAL	NEGATIVE
	Positive enablers: Availability, accessibility, acceptability, and affordability of resources needed to support preventive behaviour.	Existential enablers: availability, accessibility, acceptability, and affordability of resources that are traditionally available in the community to support prevention.	Negative enablers: lack of available, accessible, acceptable, and affordable resources needed to promote positive preventive COVID-19 decisions and actions.
Umlazi	The rural home for isolation	Traditional herbs and home remedies	Socio-cultural and structural environment
			Taxi industry non-compliance
			Non-conducive working environment
Umbumbulu		Traditional herbs and home remedies	Socio-cultural and structural environment
			Taxi industry non-compliance
			Non-conducive working environment
Cato Crest	The rural home for isolation	Traditional herbs and home remedies	Socio-cultural and structural environment
			Taxi industry non-compliance
			Non-conducive working environment

Table 7.3 - Positive, existential and negative enablers stratified according to each research site

Positive Enablers

Positive Enablers in this study refers to the availability, acceptability and affordability of resources needed to support positive COVID-19 preventive behaviours. In the HIV response, national leaders' willingness to discuss HIV and AIDS openly was regarded as a positive enabler as it contributed towards decreasing stigma and consequently a decline in HIV prevalence as evidenced in countries like Uganda and Senegal (Airhihenbuwa and Webster, 2004), although during the South African ex-President Mbeki era, the opposite was true due to his denialism of HIV and AIDS (Gumede et al., 2022). In this study, the rural home for isolation for participants in Cato Crest and Umlazi, were identified as positive enablers, as these were felt to potentially have a positive impact on health decision-making regarding COVID-19.

We have our own solutions - the rural home for isolation

Participants in Cato Crest and Umlazi mentioned several instances where family members were sent to the rural home after being diagnosed with COVID-19. In other instances, it was the vulnerable members of the household that were sent to the rural home to protect them from being infected by the family member with COVID-19. This was reportedly widespread, with participants mentioning personal stories of this phenomenon, as well as of neighbours, relatives and close acquaintances who had used the rural home as an isolation facility, instead of the government-provided quarantine and isolation facilities. The perception amongst participants was that rural homesteads, characterised by several dwelling structures within one household, posed a lesser chance of infection within the family, as those infected family members could be isolated in one of the buildings within the same household.

South Africa is characterised by what is termed ‘cyclical migration’ where rural residents move to township and informal settlement areas but maintain strong ties with their rural home that they frequent regularly in either weekly, monthly or other time intervals (Mlambo, 2018). This is a factor that is unique to this cultural context, and which aided efforts to contain the spread of the COVID-19 pandemic. The current literature on informal settlement and township areas related to COVID-19 focuses on vulnerabilities that exacerbated the negative effects of COVID-19 related to overcrowding, inability to implement COVID-19 regulations of social distancing and hand-washing and other socio-economic challenges that these communities faced at the height of the COVID-19 pandemic (Jansen and Madhi, 2022). This points to a deficits approach to most of the literature on COVID-19 and informal settlements and township areas, where attention is mostly paid to what these communities lack, as opposed to what community assets they possess. While these are real challenges that deserve attention in future pandemic preparedness efforts, exploring positive and existential factors in this study exposes strengths and positive aspects within these communities that can be leveraged to mitigate against the negative effects of COVID-19.

The South African Department of Health developed guidelines on the establishment of isolation and quarantine facilities, and further funded the setting up of these temporary facilities

in its efforts to deal with COVID-19 (Department of Health, 2020). The findings of this study demonstrate that these were under-utilised as communities had their own solutions for isolation and quarantine, which was the utilization of their rural homes for this purpose. Having a rural home in this instance is both a Positive Enabler, and an Existential Enabler as it is an already available resource which positively contributes towards COVID-19 containment in these communities, and is a resource that is unique to these communities, but which can be leveraged for positive outcomes in the fight against COVID-19.

This is an important finding that should inform future plans and strategies of governments in responding to future pandemics, and which points to the importance of community engagement processes that involve communities based on the idea that communities have their own agency in responding to health threats and are able to implement effective health solutions that aid the government efforts at containment of the health threat.

Existential Enablers

The exploration of existential enablers in this study afforded the opportunity to expose accessible, acceptable and affordable resources that are traditionally available in the community or society for support of preventive COVID-19 health behaviours. Existential enablers that were identified in the study were the availability and widespread use of traditional herbs and home remedies for treatment and prevention of COVID-19, which was common across all three research sites.

Preference for traditional herbs and home remedies

Findings further demonstrate that communities preferred traditional herbs and home remedies for treatment of COVID-19 symptoms, as well as for the prevention of the onset of symptoms. A variety of herbal remedies were mentioned, which participants used when they were infected, and which they reported to have helped them recover. Some of these were taken in preference over western medicine, whilst others were taken together with western medicine, suggesting complementary use of these medicinal herbs. Some of the herbs mentioned were gum tree leaves and *umhlonyane* (artemisia) for steaming, garlic, onions, ginger, turmeric, and honey mixed in boiling water for drinking, as well as various products derived from eucalyptus,

including oils and stones for steaming and creams for rubbing onto the chest. This was reported in all three research sites.

At Umlazi, evidence from the traditional healer³ who was a participant also suggested that communities frequented traditional health practitioners at the height of the COVID-19 pandemic. This phenomenon has been observed in other studies where research findings revealed a high preference for traditional medicine over biomedicine in the treatment of non-communicable diseases in rural KwaZulu-Natal (Chikafu, Mutero and Chimbari, 2022) and in HIV treatment and care (Moshabela et al., 2017). In exploring this phenomenon which they term “medical pluralism”, Moshabela et al. (2017) observed that this is characteristic of most sub-Saharan African contexts where people ‘shop and switch’ between multiple modalities of health care, including biomedical, faith-based and traditional healthcare systems. Their findings were that medical pluralism results in bottlenecks in the healthcare system for HIV care as it causes delays, interruptions of care and tensions between healthcare providers. Their overall recommendation was that there is an urgent need for culture-sensitive interventions and policies, which can help to minimise the potential harms caused by medical pluralism.

In the case of COVID-19, evidence from Western Colombia (Cordoba-Tocar et al., 2022), Nigeria (Orisakwe, Orish and Nanaforo, 2020), Saudi Arabia (Olyami et al., 2020; Alortibi and Al-Harbi, 2021) and South Africa (Adebisi et al., 2022) revealed the widespread use of herbs and natural products in the prevention and treatment of COVID-19 in these communities. While there was general agreement that COVID-19 herbal medicines provided an opportunity for the expansion of treatment options for COVID-19 (WHO, 2020), there was an equal amount of caution given to countries about the proliferation of herbal medicinal remedies that were being widely used, especially promoted on social media platforms. The case of the president of Madagascar, Andry Rajoelina, who promoted the use of *Artemisia Annu* as a breakthrough remedy for COVID-19 for citizens in this country, was widely publicised (Eboreime, Iwu and Banke-Thomas, 2020). This prompted vibrant scholarly debates on the use of herbal remedies for COVID-19, with some arguing for caution and more research on these (WHO, 2020e),

³ Traditional healers are commonly referred to as *sangomas*. They are different from herbalists or *Inyangas*, with the former going through a strict apprenticeship and formal initiation ceremony, whilst the latter does not go through an initiation ceremony (Nyundu and Naidoo, 2016).

whilst others were arguing that the low numbers of infections on the African continent, as opposed to other parts of the world, were due to the widespread use of herbal medicinal remedies in these countries (Iwuoha, Ezeibe and Ezeibe, 2020).

Regardless of these debates, Adebisi et al. (2021), in their study exploring South African families' response to the COVID-19 pandemic, argued that the widespread use of herbs and medicinal plants reportedly used by most of the families in their study called for a recognition of the contribution of Indigenous Knowledge Systems (IKS) to modern-day medicine. In addition, the National Unitary Professional Association for African Traditional Health Practitioners of South Africa also argued that overlooking traditional medicine in the fight against COVID-19 was "an infringement of people's rights to access to traditional health care and the right to traditional and cultural practice" (Mabuza, 2020: online).

The World Health Organization convened its first WHO Traditional Medicine Global Summit in August of 2023, due to the recognition that traditional medicine is the first port of call for millions of people worldwide and should therefore be prioritised for further research that can inform policies, and so that its safety can be regulated (WHO, 2023). This is an important step which will ensure that political commitment is mobilized for further research and evidence on the safety and efficacy of traditional medicine and the role it can play in future pandemics. In South Africa, Adebisi et al. (2021:12) have recommended for the South African government to collaborate with traditional health practitioners in conducting clinical trials that can facilitate the determination of safety and efficacy of herbal remedies used for COVID-19, and have argued that this will increase the value placed on IKS which have the potential to "present cheaper and relatively affordable solutions to most of the health care problems currently being faced specifically by vulnerable communities in South Africa and Africa at large". The data in this study shows that people have used herbal medicine for treatment, cure and prevention, and future pandemics need to address the issue of medical pluralism by exploring how these IKS fit into the wider medical options. Community informed clinical trials and testing of local medicine is one way to revive a culture-centred approach to health communication that is locally responsive yet merged into bigger research structures. The findings of this study further affirm the need for such a step.

Negative Enablers

The exploration of the lack of available, accessible and affordable resources needed to promote COVID-19 preventive behaviours was necessary for the identification of negative enablers in this study. Exploring negative enablers allows for the identification of those factors that negatively affect health decisions related to COVID-19 at community level, so that they can be targeted in COVID-19 prevention communication efforts. In the early years of the HIV and AIDS response in South Africa, the refusal by government to make ARVs available to persons living with HIV can be regarded as a negative enabler as it created a disabling environment for people living with HIV to receive the medical treatment and care that they needed to survive (Lubombo, 2013). In this study, negative enablers identified were 1) Structural factors moderating responses to COVID-19 messages, 2) Non-conducive working environments, 3) Lack of compliance in the taxi industry.

Structural factors moderate responses to COVID-19 messages

In relating their local interpretations of COVID-19 communication and how these influenced perceptions of threat and self-efficacy related to COVID-19, participants expressed how their structural environments moderated how they interpreted COVID-19 communication and how this influenced their perception of COVID-19 risk and self-efficacy to protect themselves from infection. In all three research sites, one of the major interpretations was that COVID-19 prevention is something foreign and that is not practically applicable in their environmental contexts. In Cato Crest, the overcrowded living conditions were a major factor that influenced this perception of COVID-19 prevention being too hard. In this research site, participants related how their structural environment prevented them from adopting COVID-19 precautions, particularly social distancing and handwashing due to the structural nature of their environment that is characterised by overcrowding and inadequate water resources. Participants also mentioned the dirty environment as a factor that exposed them to COVID-19 infection, despite whatever attempts they may have tried at preventing infection. This finding is in line with other studies where it was found that the concepts of social distancing, handwashing and general hygiene maintenance, which were key and necessary measures to

prevent COVID-19 infection, were difficult to implement in overcrowded environments as found in informal settlement areas (Jansen and Madhi, 2022; Ellison et al., 2022).

At the beginning of the COVID-19 pandemic, some authors issued calls for governments, particularly in the global South, to rethink containment measures in informal settlement areas, arguing that these areas “present all the conditions for rapid spread: very high population density, scant access to water and sanitation, widespread poverty and inadequate health infrastructure” (Van Belle et al., 2020:1). However, in the South African context, these calls were largely ignored, resulting in a COVID-19 response that adopted a blanket one-size-fits-all approach that rendered a large part of the population vulnerable and unable to protect themselves from COVID-19.

In the PEN-3 Model, this finding points to the fact that the overcrowded living conditions at Cato Crest were a Negative Enabler (Airhihenbuwa and Webster, 2004), meaning that they were a factor that negatively affected health decisions related to COVID-19 at community level, as communities were unable to protect themselves. This Negative Enabler, in turn, resulted in the Negative Perception that infection is inevitable in this community context due to the structural conditions that characterised the living environment.

In contrast to Cato Crest, Umbumbulu is a rural area characterised by several dwellings in one home compound, and by homesteads that are situated a considerable distance apart from each other. In light of this fact, one might assume that self-efficacy was high in this site as a result. However, the findings of this study demonstrate that this was not the case, as participants in this location mentioned how COVID-19 precautions were flouted at traditional functions and funerals, with high attendance in numbers above what was recommended by government-mandated social distance regulations, as people perceived COVID-19 to be something that affected people living in urban areas, and therefore not relevant in their context. Similarly, at Umlazi, participants regarded COVID-19 precautions as something that was foreign and not practical in their environment, and which was only observed under duress, in places such as clinics and malls. These localized interpretations of COVID-19 communication in these

different locations impacted on how communities perceived their risk and self-efficacy to protect themselves from COVID-19, mostly negatively influencing their ability to protect themselves from infection.

The perception that adherence to COVID-19 precautions was too hard was, therefore, pervasive in all three research sites, albeit for different reasons, as stated above. This can be directly attributed to the South African government's "place-blind" approach (Turok and Visagie, 2021:1) of a uniform hard lockdown that ignored the unequal risks that different communities faced due to the geospatial attributes of their physical locations. Apparent here is how the interplay between structural, cultural, social and political factors, affects adherence to COVID-19 prevention measures in the three geospatial environments, where a simple measure of social distancing, for example, is rendered impractical for a range of different reasons, depending on the structural, social, cultural and political attributes of each environment.

This points to a need for pandemic risk communication that recognises the interconnectedness of structure, culture and socio-political factors in mediating behavioural responses to a pandemic such as COVID-19. In this study, structural factors are different for each geospatial location, and affect prevention measures differently, suggesting that pandemic communication efforts should be conceptualised at a more granular level. This calls for a need to revisit how community engagement processes are conceptualised and effected. While a broad community engagement process at the national and provincial level is necessary, and was indeed implemented by the South African government's SBCC TWG, there is evidence in this study of the need to allow the community engagement processes to permeate to local community structures, where solutions can be determined collectively through dialogue, with both communicators and communities as partners.

The Cultural Empowerment domain emphasises a focus on risk environment as a key factor that defines and confines vulnerability to COVID-19 infection (Airhihenbuwa et al., 2020), as opposed to the public health focus on individual risk that framed the discourse on communication around COVID-19 prevention (Govender, 2021; Dutta, 2021). This approach

recognises that there are pre-existing structural conditions that predispose some communities to COVID-19 infection due to the unique attributes of the living conditions that characterise these environments. It is the argument in this study that COVID-19 communication interventions need to focus on the context and take into consideration the lived experiences of communities through a genuine and more localised community engagement process that seeks solutions from the ground up and that recognises the need for pandemic communication at a more granular level (Airhihenbuwa et al., 2021).

Non-conducive working environments

The belief that some working environments are not conducive to COVID-19 prevention was expressed at Umlazi and Umbumbulu, with the resultant perception being that infection was therefore inevitable. At Umlazi, the traditional healing practitioner who was a participant related her experiences of attempting to protect herself and her patients from infection with COVID-19, but feeling that it was all futile due to the nature of her work which demanded close proximity to each patient as she laid hands, prayed and worked to heal her patients. At Umbumbulu, a dressmaker who was a participant also related how her practice demands that she get close to her customers as she takes clothes measurements and does fittings, all activities that go against the social distancing measures that were in place at the time. As a result, she reported having contracted COVID-19, and in turn having infected her mother, although they both survived and recovered.

Whilst this sub-theme demonstrates an example of a Negative Perception, in terms of the PEN-3 Model, it also sheds light on the workplace being a Negative Enabler, as it impacted on participants' ability to protect themselves from COVID-19 infection. While it has been established that work-related exposure to COVID-19 is a significant contributor to the spread of infections, most of the literature on COVID-19 and work-related infections have focused on health care workers (HCWs) only, neglecting the risks faced by other types of workers that have constant contact with the public in their course of work (Lan et al., 2020). In this study, dressmakers and traditional healers reported how they faced the risk of infection daily in the course of their work, but feeling alone and unsupported in their efforts to avoid infections. This

can be said to have been a blind spot in the South African response to COVID-19, as there was less attention given to how other public-facing occupations posed a risk, not only to themselves, but also to their families and the broader population.

With South Africa having a high unemployment rate (Musara, Mabila, Gwaindepi and Netsai, 2020), the issue of work and employment is a pertinent one with regards to how this influences people's actions to either protect themselves from COVID-19 or not. Evidently, in this study, participants were more concerned about preserving their sources of income and were prepared to risk infection with COVID-19, rather than lose their income. The draconian lockdown measures, including physical distancing measures imposed on the population, brought about a significant tension between economic wellbeing and physical wellbeing. Reports by participants show that economic livelihood concerns held more weight than physical wellbeing, resulting in recommended precautionary measures being flouted. Indeed, the one dressmaker participant reported that she believes that she and her mom who works with her, contracted COVID-19 in her dressmaking practice.

The privileging of Western ways of knowing is evident in this instance as the traditional healing sector was not considered in the provision and allocation of personal protective equipment (PPE) that the Western medical sector enjoyed at the height of COVID-19 in South Africa. Additionally, the economic repercussions of lockdown and physical distancing that were implemented by the South African government, served to further marginalise communities at the margins. Reflecting on Paulo Freire's ontological call, Suzina and Tufte (2020) isolate, amongst others, the principle of humility as an essential ingredient in health communication. The principle of humility "suggests that the authentic truth does not belong to any one individual or group, nor is it imposed by one group upon another", and that there must be a constant process of action and reflection that considers the realities of both parties involved in the communicative endeavour (Suzina and Tufte, 2020:414). In reference to this study, humility would entail a process of dialogue that would ensure that all sectors are involved in a participatory process of engagement to determine how best each economic sector could be protected from COVID-19, whilst ensuring economic livelihoods for communities.

Lack of compliance in the transport industry

Participants in the three research sites felt that public transportation in the form of taxis negatively impacted on their ability to protect themselves from infection with COVID-19. In all three research sites, participants mentioned various instances of taxi drivers neglecting to issue the mandated hand sanitizers for passengers, as well as failing to enforce the use of face masks by passengers. In these instances, participants felt vulnerable to infection with COVID-19, resulting in low self-efficacy by communities to protect themselves from infection. In this sense, these negative taxi driver attitudes became a Negative Enabler, impacting negatively on participants' ability to protect themselves from COVID-19. According to Mtetwa (2022), a similar finding was made in the township of Soweto, South Africa, where participants expressed concerns that there was widespread flouting of COVID-19 precautions in taxis with taxi drivers not enforcing the observance of precautions, hence resulting in passengers' low self-efficacy to protect themselves from COVID-19.

In South Africa, the government had issued advisories that put several restrictions on the operation of the taxi industry as a means of mitigating against COVID-19 infections. These included the enforcement of limits on taxi occupancy, with allowed occupancy reduced at first to 50%, and later to 70% to allow for social distancing (Department of Health, 2020). Mask-wearing and hand sanitizing were also mandatory not only for taxi drivers, but also for their passengers (Department of Health, 2020). In the research sites for this study, participants reported that all taxis were issued with hand sanitizers to be used for each passenger that boarded the taxi. However, these were rarely used and passengers also neglected to put face masks, with taxi drivers not enforcing this regulation.

The disagreements between the taxi industry and the South African government over COVID-19 regulations were well documented, with the taxi industry demanding the loosening of some of the COVID-19 restrictions, as they felt they were not properly consulted as stakeholders in decision-making on COVID-19 restrictions (Parliamentary Monitoring Group, 2020). It is therefore not surprising that there was this reported widespread lack of cooperation from the

taxi industry in ensuring that COVID-19 regulations were observed. This further emphasises the argument in this thesis that a community engaged response to pandemic communication is necessary to ensure the local adoption of preventative health behaviours. The exclusion of the taxi industry from participation in decision-making around the South African government's COVID-19 strategy resulted in widespread lack of compliance with prevention measures in this industry, exposing communities to infection on a big scale.

A targeted community engagement process with the taxi industry, not only at industry level, but also at grassroots level, where taxi drivers themselves can input into possible COVID-19 mitigation strategies particular to this industry, may have assisted, considering that 80.2% of South Africa's workers use taxis (Statistics South Africa, 2021). Since taxi drivers had the added responsibility of enforcing COVID-19 regulations with commuters, there was a missed opportunity to not only treat them as consumers of blanket one-size-fits-all COVID-19 prevention communication, but as collaborators and strategic partners in the fight against COVID-19. A participatory community engagement process particular to the taxi industry is an important consideration in future pandemic risk communication strategies.

The above three themes under Negative Enablers speak to issues of adherence based on living, working and travelling conditions which were impacted structurally, but influenced by culture, economics and politics. In this study, the adoption of COVID-19 prevention measures was evidently impractical, leading to the perception that attempts at prevention were futile. While participants in all three research sites acknowledged their high risk of infection, self-efficacy in avoiding infection was low, as a result of the identified structural, political, economic and socio-cultural factors in their different geospatial environments, suggesting that their living environments were Negative Enablers with limited resources for the adoption of the necessary prevention measures for COVID-19 infection. This, therefore, points to an interplay between two elements across two domains of the PEN-3 Model, the Negative Perceptions and Negative Enablers, with the socio-cultural, structural, economic and political environment being a negative enabler, and in turn promoting negative perceptions that individual efforts at protection from COVID-19 are futile. It is against this backdrop that these negative perceptions

and negative enablers challenge COVID-19 messaging which failed in its non-pharmaceutical message of social/physical distancing.

Nurturers

NURTURERS	POSITIVE	EXISTENTIAL	NEGATIVE
	Positive nurturers: friends, family, community members with a positive influence on health decision-making regarding COVID-19.	Existential nurturers: influence of significant others and community contexts in making health decisions and choices within certain traditional values and practices.	Negative nurturers: influence of significant others and community contexts in negatively shaping health decisions and choices that contribute to the spread of COVID-19.
Umlazi	Family support	Community support - CBOs	Parties and funerals
Umbumbulu	Family support	Community leadership structures	Traditional events
Cato Crest	Family support	Community leadership structures	Stigma

Table 5.4 - Positive, existential and negative Nurturers stratified according to each research site

Positive Nurturers

Positive Nurturers refers to influences of significant others and community contexts in making positive health decisions and choices (Airhihenbuwa and Webster, 2004). In this study, positive nurturers were defined as friends, family, community members with a positive influence on health decision-making regarding COVID-19. In the Mayan community in Guatemala, family members reported feelings of responsibility towards their fellow family members, expressing high levels of willingness to care for family members if they fell sick with AIDS (Dunleavy et al., 2018). The family, in this case, was considered a positive nurturer in terms of HIV and AIDS care and support. Similarly, in this study, family support for COVID-19 prevention was reported as high in all three research sites.

Friends and family support for COVID-19 prevention

The findings of this study further show good levels of family support for prevention of COVID-19, with participants in all three sites stating that they received positive reinforcement of prevention messages from their family members, notably senior family members such as mothers, fathers and aunts, although there were some that reported having received family support from siblings as well. Participants reported being educated, supported, encouraged and

reminded by family members to maintain COVID-19 preventive behaviours, an acknowledgement of the family as a Positive Nurturer in terms of COVID-19 prevention.

This finding is in line with findings from other studies, notably in the Mayan community in Guatemala, where family members reported feelings of responsibility towards their fellow family members, expressing high levels of willingness to care for family members if they fell sick with AIDS (Dunleavy et al., 2018). In South Africa and Uganda, in fighting against the HIV epidemic, similar findings were made about the important role of the family in providing support. The family, in this case, was considered a positive nurturer in terms of HIV and AIDS care and support (Brown, BeLue, and Airhihenbuwa, 2010; Damulira et al., 2019), a similar finding also made regarding COVID-19 (Wong et al., 2020; Adebisi et al., 2022). Similarly, in this study, family support for COVID-19 prevention was reported as high in all three research sites, pointing to a need for future pandemic communication responses that incorporate the family as an asset in health promotion efforts.

This finding points to a need to learn from already-existing knowledge on fighting previous pandemics and epidemics in health communication intervention development. As a result, the South African government's COVID-19 communication strategy did not incorporate the family unit as a useful resource in addressing COVID-19, yet this was an opportunity that had the possibility of yielding positive results, had it been fully incorporated into the COVID-19 communication strategy. The family can be mobilized for education, support, and encouragement of positive health behaviours so that it plays a role in the prevention of infections, and support for those infected, including the reduction of stigma. In addition, there is evidence in this study of family members in the policing, nursing and cleaning professions being cited as the most verbal in supporting and encouraging COVID-19 preventive behaviour, demonstrating that these professionals transferred preventive behaviours associated with their line of work, to the home environment. This may point to an additional opportunity for information dissemination by these professionals not only within their immediate families, but also in the wider community, where they can serve as additional conduits of support for preventive behaviours. This finding presents an opportunity for future pandemic

communication practice, where the family can be fully incorporated into communication strategies, leveraging the supportive role that family members can play in already-existing government communication.

Existential Nurturers

Existential nurturers refer to “influences of significant others and community contexts in making health decisions and choices within certain traditional values and practices” (Airhihenbuwa and Webster, 2004:8). In this study, these influences of significant others and community contexts in making health decisions are explored in relation to COVID-19 decision-making. Findings revealed the existence of community leadership structures as an Existential Nurturer in this study, as these were felt to have significant influence on health decision-making.

Respect for community leadership structures

In all three research sites, participants displayed a high regard for community leadership structures as relevant structures that could have had an impact on the prevention of COVID-19 in their communities. In most instances, these structures were felt to have not been utilised to their fullest potential, yet they were regarded as having influence on community-wide health decision-making, rendering them Existential Nurturers in terms of the PEN-3 Model.

At Umbumbulu, participants there had respect for traditional leadership structures of Chiefs and Indunas (herdsmen) as well as the church, suggesting that COVID-19 communication emanating from these structures would have had an impact on collective community behaviours, confirming findings from other studies in South Africa (Campbell, 2010; Dziva, 2020; Grieco, 2020; Bhuda, Marumo and Motsoaledi, 2021), Zimbabwe (Marashe, 2014) and Sierra Leone (van der Windt and Voors, 2020).

However, the findings of this study show that the incorporation of the traditional leadership sector was not done uniformly throughout the country, as participants in this study reported a lack of involvement of traditional leaders in COVID-19 mitigation strategies, yet they may have been positively influenced by this structure. Future pandemic preparedness efforts need

to incorporate the full involvement of traditional leaders in pandemic communication, as evidence suggests that they may have a positive influence on overall health outcomes for communities. Important to consider, however, are some of the challenges associated with traditional leadership in general, particularly the autocratic and oftentimes patriarchal leadership systems inherent within these leadership structures (Campbell, 2010; van der Windt and Voors, 2020), which can possibly render them Negative Nurturers if not adequately mobilised. Future research should explore how traditional leadership structures can be harnessed in pandemic response strategies, whilst at the same time fostering more democratic and gender responsive mechanisms for communication and decision-making at community level.

Participants in Cato Crest and Umlazi reported having trust in local community structures of War Rooms, Area and Street Committees, that have more proximity to the communities on the ground, and which are usually at the forefront of solving community problems. The strategy reported in Liberia during the Ebola crisis (Tsai, Morse and Blair, 2020), of using local intermediaries, may have facilitated closer engagement with communities, thereby increasing trust in the government's COVID-19 strategy. However, in both these research sites, there was evidence of lack of trust in local government officials that were responsible for the COVID-19 response, with some participants alleging corruption in the distribution of relief supplies to help communities cope with the economic impacts of COVID-19. In other instances, government officials were accused of being invisible and inaccessible to communities, and so were viewed with mistrust and suspicion. Of concern is that these were leaders at community level, who would have been assumed to be closer to communities and therefore accessible and useful conduits for government support and communications for COVID-19 relief.

As far back as 1998, scholars were already cautioning against “romantic notions of altruism in developing countries” (Michener, 1998:2113), arguing that whilst authentic community participation was the goal in communication for development, there needs to be a recognition of power dynamics at community level where manipulation can happen from the bottom up as different stakeholders grapple with issues of power and its distribution. In the HIV response in

South Africa, for example, some literature on participatory community development reveals that power dynamics at community level are often contested (Gumede, Dyll and Lubombo, 2023). This finding therefore points to a need for future pandemic responses to be cognisant of power contestations at community level, and to put in place strategies that can ensure the elimination of bias and corruption in how aid is fairly distributed to communities.

In this sense then, community leadership structures in Umlazi and Cato Crest were both Negative and Positive Nurturers, as they were preferred on one hand, but also viewed with suspicion, on the other hand, while in Umbumbulu, they were Existential Nurturers, as they were felt to have the potential for a positive influence on community health behaviour.

Negative Nurturers

In this study, Negative Nurturers refers to influences of significant others and community contexts in negatively shaping health decisions and choices that contribute to the spread of COVID-19. Stigma has been identified as a negative nurturer in HIV prevention before as it often leads to isolation of those infected from family and social support (Airhihenbuwa and Webster, 2004; Dunleavy et al., 2018). In this study, instances of stigmatization were shared by participants, often resulting in those infected with COVID-19 hiding the fact that they were infected, and possibly exposing more people in the community to further infections.

Fear of stigma prevents health-promoting behaviour

Participants in Cato Crest reported stigmatising attitudes towards people who were diagnosed with COVID-19 in this community. Participants related instances where they had hidden that they were infected with COVID-19 for fear of being isolated by neighbours. Others reported that similar to stigmatisation seen with HIV positive people, stigmatisation of people with COVID-19 was also rampant in the community. As a result, people would go about their daily lives with a COVID-19 diagnosis, if they were asymptomatic, including one participant who related that he hid his COVID-19 status, as he feared isolation and ostracization from the community if he revealed that he had tested positive for COVID-19. This is a unique insight, in that with HIV, stigmatization was associated with moral issues and perceived promiscuity

(Visser and Sipsma, 2013), which drove self-stigma and othering. In this study, while there were no moral undertones associated with infection with COVID-19, there is evidence of self-stigma, where people concealed their COVID-19 status for fear of being ostracized by the community.

In this study, other narratives around the othering of COVID-19 were observed, with participants in Cato Crest expressing beliefs that COVID-19 was a ‘White Man’s disease’ because the first person to be diagnosed with COVID-19 in South Africa was a White man who had travelled to Italy, and presumably got infected there. As a result, in this site, some participants felt that they were protected from COVID-19 as being Black meant one was stronger due to dietary practices amongst the Black population. This perception then negatively affected decision-making around COVID-19 as participants were not likely to actively protect themselves from COVID-19 if they had this belief. This finding was also observed in another study in South Africa (Schmidt et al., 2020), where participants also held the same stigmatising beliefs that COVID-19 was a White man’s disease and that Black people were protected from infection due to their staple diet of maize meal. Evidence in India also suggests that COVID-19 stigma was rampant in some communities due to prevailing narratives about migrant workers, healthcare workers, a Muslim religious sect, with some stigmatising narratives also based on race, particularly towards the North East Indian populations, promoting the othering of COVID-19 (Bhanot et al., 2021).

At the beginning of the COVID-19 pandemic, there was anticipation by some authors that stigma would have an impact on COVID-19 mitigation strategies (Adiyukwu et al., 2020; Turner-Musa et al., 2020). The key consideration was that experiences with HIV and Ebola had shown that stigma fuels non-adherence to preventive measures, with false information contributing to fear-mongering and othering, which, in turn, drives infections underground as those infected hide their infectious status (Schmidt et al., 2020). It was therefore important for the South African government’s COVID-19 response to consider stigma and its negative effects on containment measures in its communication strategy.

Considering this, several recommendations have been made by other scholars on possible measures that could be taken to effectively deal with stigma related to COVID-19 (Schmidt et al., 2020; Adiukwu et al., 2020; Peprah and Gyasi, 2021). In line with the primary argument proposed in this study for pandemic communication, Peprah and Gyasi (2021) have recommended a community-engaged, participatory process with direct involvement of affected communities, with attention paid to cultural features of different communities in developing and implementing a COVID-19 communication response.

While Adiukwu et al. (2020) recommend an ecological approach to tackling stigma, that takes into consideration the individual, community and policy level focus in COVID-19 communication, it is the thesis in this study that this should be done with a focus on positive, existential and negative nurturers that have an impact on health behaviour. In this case, stigma came out as a Negative Nurturer in Cato Crest, meaning that it negatively affected the adoption of COVID-19 preventive behaviours. Based on this finding, and taking into consideration the cultural concept of Ubuntu which manifested as strongly influencing behaviours related to COVID-19 in this study, possibilities exist for the mobilization of Ubuntu in addressing stigma related to COVID-19. Participatory pandemic risk communication centred around the concept of Ubuntu can challenge stigmatizing narratives through counter-narratives that invoke mutual responsibility and support for COVID-19 prevention efforts. This is an important consideration for future culture-centred pandemic risk communication as it further points to the need to ensure a community-engaged, participatory process.

Conclusion

This chapter has presented a discussion of the themes generated from the data for this study, using the extant literature, and the theoretical and conceptual constructs of the PEN-3 Model. The analysis is guided by the first three research questions for the study.

The first research question for the study explored community perceptions of risk, threat and self-efficacy evident in local interpretations of the dominant COVID-19 communication. The results of the study show that perceptions were influenced by different factors in the different research sites for the study, including overcrowded environments, unsafe working

environments and the public transport industry. Ambivalent attitudes towards the government's COVID-19 strategy were also identified as perceptions that impacted on participants' evaluation of the threat and risk for COVID-19 infection., as well as mistrust of government and conspiracy theories

The perception that the concept of Ubuntu was being challenged by COVID-19 restrictions was prevalent in Umlazi and Umbumbulu, with participants in these research sites expressing feelings of being robbed of their cultural identity of communal living and support by the social distancing regulations that were mandated by government for the control of the spread of COVID-19. The chapter has also identified the existence of community assets such as the use of the rural home for isolation by participants in Umlazi and Umbumbulu, and the widespread belief in traditional herbs and home remedies for prevention and treatment of COVID-19 symptoms in all three research sites.

The three themes of respect for community leadership structures, decision-making mediated by significant others, and the influence of stigma were discussed in answer to the third research question for this study, which explored personal and community networks that influence the adoption of COVID-19 preventive behaviours. Personal networks of family and friends were additionally identified as having had a positive impact on COVID-19 preventive behaviours in all three research sites for the study. In Cato Crest, the impact of stigma on the adoption of COVID-19 preventive measures was discussed as having negatively influenced prevention measures as it prevented testing for COVID-19 and pushed COVID-19 infections underground as people feared being stigmatised if they were known to be infected.

The overall conclusion in this chapter is that pandemic communication needs to be participatory and should incorporate community voices to inform containment and communication strategies. The field of health communication is dominated by Euro-Western-centric individual theories of behaviour change, which ignore the collectivist nature of African societies, resulting in health communication products that miss the mark in terms of influencing health behaviours (Gumede, 2022).

The next chapter presents the Conclusion to the study, and a discussion of the fourth research question for this study, which explores feasible and acceptable pathways for the development

of locally relevant COVID-19 communication messages, which was explored through the lens of the Cultural Identity domain of the PEN-3 Model.

CHAPTER EIGHT

CONCLUSION

Introduction

This chapter presents the conclusion to this study, highlighting how each research question for the study has been answered, and pointing to the unique contribution to knowledge that this study makes. Recommendations for future research and practice are made, and limitations of the study are outlined. The study set out to explore local interpretations of COVID-19 communication and their influence on perceptions of risk and self-efficacy in three geospatial locations of rural, township and informal settlement areas in eThekweni Municipality in KwaZulu-Natal, South Africa. The study further set out to explore socio-cultural and structural factors that influence decision-making on COVID-19, as well as personal and community networks that influence the adoption of the dominant COVID-19 prevention messages in the selected research sites. This exploration was done to establish feasible and acceptable pathways for the development of locally relevant COVID-19 prevention messages.

The study was based on the need for the exploration of community-engaged COVID-19 communication that acknowledges “the voices of those in the community with culturally relevant solutions ... [and] with culture as a connecting space” (Airhihenbuwa et al., 2020:2). This was considering prevailing top-down, one-size-fits-all COVID-19 communication approaches that targeted individuals with no consideration of the socio-cultural and structural contexts that influence decision-making around COVID-19 prevention. The WHO (2020a) had also called for social science research that explores how individuals and communities make sense of COVID-19, what the most effective strategies are for addressing underlying drivers of fear, anxieties, and risk amongst populations, and what the relevant, acceptable, and feasible pathways are for engaging communities meaningfully in the COVID-19 response.

By way of background, the South African COVID-19 response was presented in general and its communication response in particular. This was done to illustrate the top-down, individual-focused, and government-led South African COVID-19 communication landscape that frames this study. This background served as the backdrop against which further exploration of the research questions was done in the three research sites for the study. The choice of the three

research sites was intentional and was done to explore if there are any similarities and/or differences in how communities in these three different geospatial locations interpret the dominant COVID-19 prevention measures and related communication, and how these localized interpretations influence perceptions of risk and self-efficacy in the three research sites. It was further elucidated in the Introduction chapter that this study is grounded within the field of CFSC, which places emphasis on challenging structural conditions that render communities vulnerable through bottom-up, participatory communication approaches that have an empowerment intent and which foreground collective action aimed at sustainable social change (Tuftte, 2017). As a result, the study was further grounded on RCCE, which emphasizes collaboration, empowerment, participation, and the amplification of community voices in risk communication (Gilmore et al., 2020).

The PEN-3 Model was chosen as the theoretical framework for this study for its foregrounding of the positive aspects of culture, as opposed to the negative cultural framings common in Western-centric forms of theorizing. Touted for its focus on the cultural context, rather than the individual, the PEN-3 Model not only framed the study theoretically but was also used as the analytic frame to guide data collection and analysis. Cognisant of the existing gap in research, where the *Cultural Identity* domain is often not explored, in this study, all three domains of the model were applied, providing for an opportunity to not only explore factors influencing decision-making around COVID-19 but also allowing for the development of possible communicative solutions through a community-engaged process in Phase 2 of data collection, as explained in more detail in Chapter Three.

Informed by the Social Constructivist paradigmatic stance, this study sought to produce “reconstructed understandings of the social world” (Denzin and Lincoln, 2018:202) of research participants in the three research sites of the study, as they navigated the COVID-19 landscape, seeking to understand the influence of culture on local interpretations of COVID-19 communication, and how these influenced consequent decision-making around COVID-19. However, recognizing the need to advance a transformative action agenda for social change (Creswell and Poth, 2018), the study borrowed concepts from the Transformative paradigm, as the intention was to engage participants in a collaborative process through community dialogues, where they were able to formulate locally and culturally relevant communicative solutions in their different contexts. Driven by the need to expose hegemonic communicative practices that further marginalize communities, rendering them voiceless in the COVID-19

communication response, this study was further grounded within the Critical Theory paradigm. This bricolage was deemed useful for enhancing the richness of the study.

Due to COVID-19 precautions that restricted face-to-face contact between researchers and human participants, virtual WhatsApp community dialogues were selected as the main method of data collection, based on established ease of access to WhatsApp in the research sites for the study. While initially thought to be a less preferred second option, the virtual community dialogues provided affordances that were not originally anticipated, allowing asynchronous communication and varied communication methods, including voice, text, and pictures, which served to enhance the data collection process. The adoption of Reflexive Thematic Analysis (Braun and Clarke, 2021) was also in line with the paradigmatic stances adopted for the study, allowing for self-reflection by the researcher throughout the data collection and data analysis process.

All this was done to arrive at findings that would provide answers to the research questions for the study. The next section will provide an exegesis of how the research questions for the study were answered, followed by a detailed discussion pertaining to the fourth research question for this study, which is the acceptable and feasible pathways for the development of locally relevant COVID-19 prevention messages. The unique contribution to knowledge that this study makes will be explained, and recommendations will be made for future research and practice.

Research Question 1

Perceptions of risk and threat evident in local interpretations of the dominant COVID-19 messages in the three research sites

The results of the study show that different factors influenced perceptions in the different research sites for the study. In all three research sites, participants held the perception that adherence was too hard and that infection with COVID-19 was, therefore, inevitable. In Cato Crest, this was mainly attributed to the overcrowded living environment, inadequate water sources, and a generally unhygienic environment. In Umlazi and Umbumbulu, unsafe working environments were cited as challenging prevention efforts at an individual level. In all three research sites, the public transport industry, in the form of minibus taxis, was cited as largely responsible for exposing communities to COVID-19 infections.

All these factors reportedly colluded to render prevention efforts futile in these environments, due to the challenges cited by participants. Whilst participants were able to appropriately evaluate the threat of infection with COVID-19 and had a high-risk perception, self-efficacy was low due to the factors cited above, hence the perception that adherence was too hard and infection with COVID-19 is inevitable. The point has been made that this theme points to a *Negative Perception*, which means that this impacted negatively on COVID-19 prevention efforts and that the structural environments in all three sites were Negative Enablers, which resulted in the negative perception that adhering to COVID-19 prevention measures was unachievable and a futile exercise. An argument has been made for a contextual COVID-19 response that considers the different vulnerabilities that different communities experience during pandemics such as COVID-19.

Ambivalent attitudes towards the government's COVID-19 strategy were also identified as perceptions that impacted participants' evaluation of the threat and risk for COVID-19 infection. Under this theme, *Positive Perceptions* of accurate knowledge and positive attitudes to COVID-19 prevention messages were identified, and how these influenced participants' sense of self-efficacy displayed through attempts at adherence to COVID-19 prevention measures. The argument was made that whilst *Positive Perceptions* are directly related to positive adjustments in desired health behaviours, other factors may interfere with participants' ability and willingness to adopt prevention measures. In this study, these factors were closely linked to participants' mistrust of government, which was evident in all three research sites, as well as beliefs in conspiracy theories, which were more pronounced in Umbumbulu and, to a lesser extent, in Cato Crest. Interesting to note is that government health facilities were mistrusted, despite their easy availability in the research sites. The South African government had increased the capacity of the health facilities through the establishment of additional quarantine facilities that were easily accessible to the research participants in this study, and which were well-equipped to handle increased demand necessitated by COVID-19. However, mistrust persisted regardless due to participants' previous experiences with government and the proliferation of conspiracy theories through various media forms. An argument was made for participatory community engagement as has been seen in other contexts where closer ties with international NGOs were believed to hold promise for increasing trust in government, as well as the involvement of community influencers that can support the government's

communication efforts at social listening and the debunking of myths, disinformation, and misinformation and conspiracy theories.

The perception that the concept of Ubuntu was being challenged by COVID-19 restrictions was prevalent in Umlazi and Umbumbulu, with participants in these research sites expressing feelings of being robbed of their *Cultural Identity* of communal living and support by the social distancing regulations that were mandated by the government for the control of the spread of COVID-19. This study has presented the dilemma that is presented by a positive cultural value that exposes people to negative health outcomes, highlighting that the PEN-3 Model does not account for such an ambiguity, as Ubuntu in this study could have been a *Positive Enabler*, but since the government's COVID-19 strategy did not incorporate this concept into its communication strategy, the *Negative Perception* that Ubuntu was a *Negative Enabler* prevailed in Umlazi and Umbumbulu. Suggestions for the incorporation of the concept of Ubuntu were made, some of which involve leveraging this concept for communication that capitalises on this *Cultural Identity*, harnessing collective responsibility for COVID-19 prevention.

Research Question 2

Social, cultural, and structural factors that influence decision-making around COVID-19

This study has also identified two themes in answer to the second research question for this study, which explores social, structural, and cultural factors that influence decision-making around COVID-19, namely the existence of community assets such as the use of the rural home for isolation by participants in Umlazi and Umbumbulu, and the widespread belief in traditional herbs and home remedies for prevention and treatment of COVID-19 symptoms in all three research sites. The study has argued for an assets-based approach that recognizes community agency and resources and mobilizes these through participatory communication approaches that draw on community voices for solutions to health problems, and the greater involvement of the traditional medicine sector in COVID-19 communication so that the safety and efficacy of traditional medicines can be established early on in the pandemic response. Future pandemic responses need to address the issue of medical pluralism by exploring how these IKS fit into the wider medical options. Community informed clinical trials and testing of local medicine

have been suggested as one way to revive a culture-centred approach to health communication that is locally responsive yet merged into bigger research structures.

Research Question 3

Personal and community networks that influence the adoption of the dominant COVID-19 prevention messages

The three themes of respect for community leadership structures, decision-making mediated by significant others, and the influence of stigma were discussed in answer to the third research question for this study, which explored personal and community networks that influence the adoption of COVID-19 preventive behaviours. In Umbumbulu, community leadership structures in the form of traditional leadership were discussed for their potential to enhance COVID-19 communication efforts at the community level, although caution was pronounced on ensuring that these are mobilized, keeping in mind their propensity for authoritarian leadership, which often-times lacks sensitivity to gender considerations. In Cato Crest and Umlazi, the community leadership structures of area committees and local councillors were discussed for their benefit in enhancing COVID-19 communication efforts and the COVID-19 response in general. However, these structures were simultaneously viewed with suspicion for their inadequate response as perceived by participants in these two research sites, calling for COVID-19 responses that recognize the moderating influence of power dynamics at the community level and which work to enhance mechanisms for transparency and accountability by such leaders.

Personal networks of family and friends were additionally identified as having positively impacted COVID-19 preventive behaviours in all three research sites for the study. The study has argued that the extant literature is littered with narratives of how families were negatively impacted by COVID-19, overlooking the family as a *Positive Nurturer* that can be mobilized in COVID-19 communication efforts for its role in educating, supporting, and encouraging positive COVID-19 prevention behaviours. In Cato Crest, the impact of stigma on the adoption of COVID-19 preventive measures was discussed as having negatively influenced prevention measures as it prevented testing for COVID-19 and pushed COVID-19 infections underground as people feared being stigmatized if they were known to be infected. The mediating influence

of family was identified as a possible lever for the mobilization of destigmatizing narratives that would ensure family and community support for those infected with COVID-19.

Research Question 4

Acceptable and feasible pathways for the development of locally relevant COVID-19 prevention messages

The final research question for this study explores the acceptable and feasible pathways for the development of locally relevant COVID-19 prevention messaging. This research question aims to distil all the insights gained from Phase 1 community dialogues and establish what a community-engaged COVID-19 communication response may look like. With this study grounded within the field of RCCE, which valorises the participatory engagement of communities in determining and influencing action for social change, the premise of this study is the importance of understanding socio-cultural contexts and the development of culturally appropriate strategies for a COVID-19 communication response that places community voices at the centre of the response (Gilmore et al., 2020). Involving community voices in the COVID-19 communication response opens opportunities for locally relevant solutions to come to the fore, leveraging on already existing community assets.

This study is further grounded within the field of CFSC, which calls for bottom-up, participatory communication approaches that place community voices at the centre of social change processes, and which foreground community agency in determining solutions (Tufté, 2017; Obregon and Waisbord, 2014; Dutta, 2021; Airhihenbuwa et al., 2020). For Airhihenbuwa (1990), the engagement of community voices should foreground the positive role of culture in influencing health behaviour change while also acknowledging existential factors within a cultural environment that may contribute to positive health outcomes before exploring negative aspects that need to be addressed.

The *Cultural Identity* domain, which is the last domain of the PEN-3 Model, is the domain that explores possible entry points for a health communication intervention, through the identification of persons who influence health decision-making, extended family and kinship ties that influence health decision-making, as well as neighbourhood factors, which explore how the social context and community held values shape and influence health decision-making at the community level (Airhihenbuwa and Webster, 2004). Literature shows that most

published studies either do not apply this domain in their research or do not report on it (Iwelunmor et al., 2004). In this study, the *Cultural Identity* domain was explored in all three research sites during the second phase of data collection. It involved going back to the community with data from the first phase and working with communities to co-create possible communicative solutions for COVID-19 health communication that are locally and culturally grounded. In this phase, participants deliberated on identifying entry points for a COVID-19 communication response that would be relevant to their cultural context, based on data collected in Phase 1. Virtual and face-to-face community dialogues undertaken with research participants in all three research sites yielded interesting insights into the *Cultural Identity* domain's three components: *Person*, *Extended Family*, and *Neighbourhood*.

Person

The *Person* component explores the one person with the most influence on health decision-making (Airhihenbuwa and Webster, 2004). It has been reported above how healthcare workers and community healthcare workers in all three research sites encouraged and educated their family members, including neighbours, about COVID-19. This may point to these cadres as possible entry points for a COVID-19 communication response at a community level. Due to their proximity to knowledge about COVID-19, healthcare workers can serve as community resources in terms of communicating health-related COVID-19 communication. Indeed, during the height of the COVID-19 pandemic, there was a proliferation of medical doctors and nurses who started posting educational videos on social media platforms like TikTok, WhatsApp, and Facebook, with findings highlighting the opportunity for healthcare workers to be leveraged as agents of social change in COVID-19 communication (Topf and Williams, 2021), particularly among the youth who are most active on social media platforms. Healthcare workers in this study could be regarded as both *Positive* and *Existential Nurturers* who played a positive role in influencing health decision-making with regard to COVID-19 at the community level.

However, men and youth in all three research sites for this study were found to be the most resistant to COVID-19 prevention and control measures, rendering them *Negative Nurturers*, according to the PEN-3 Model. This finding is consistent with findings from other studies conducted in South Africa, where the odds of adhering to COVID-19 guidelines were less amongst men compared to women (Majam, Fischer, Phiri, Venter and Lalla-Edward, 2021), and youth were less adherent to COVID-19 regulations than other age groups (Bronfman,

Repetto, Córdón, Castañeda, and Cisternas, 2021). Low adherence amongst youth could be attributed to information from the WHO that stipulated that young people were not likely to be adversely affected by COVID-19, therefore resulting in low-risk perception amongst this age cohort.

Cultural and patriarchal gender norms have been cited as contributing to men's reluctance to adhere to health guidelines and to access health services in other studies in Nigeria (Olanrewaju, F.O., Ajayi, Loromeke, Olanrewaju, E., Allo, and Onwuli, 2021), amongst Malayan men in Guatemala (Dunleavy et al., 2018) and amongst men in South Africa (Iwelunmor, Sofolahan-Oladeinde and Airhihenbuwa, 2014). In the South African context, Iwelunmor et al., (2014) have provided evidence that health experiences of men cannot be separated from the historical, social and cultural factors that shape the notion of what it means to be a man. In other words, male cultural identity, fuelled by patriarchal societal norms, is an important factor to consider in interventions targeting men for COVID-19 prevention.

Similarly, in this study, men's reported 'stubbornness' was given as the reason behind men's resistance to adhere to COVID-19 regulations, with male participants themselves confirming that they would find it difficult to be told to do something (in this case, adhere to COVID-19 guidelines) and then to just do it without questioning it, displaying this notion of male masculinity that is associated with male cultural identity in the study's context. Given that this phenomenon is not new and has been found in other studies, the argument against abandoning lessons learned in other pandemics before COVID-19 is valid, a sentiment Govender (2020) expressed and that is supported in this study.

The Person component of the Cultural Identity domain, therefore, identifies healthcare workers as Positive 'nurturers' that can be mobilized as part of the communication response and men and youth as priority audiences that should be engaged in finding communicative solutions that improve awareness of and adherence to COVID-19 prevention measures.

Extended family

The *Extended Family* component seeks to identify those within the family setting that have the most influence on positive health behaviours (Airhihenbuwa and Webster, 2004). The findings of this study have affirmed the role of the family as an important factor that has the potential

to contribute to positive health outcomes within the family environment. The high regard for mothers and other adult female figures within households indicates that women in families can be a suitable entry point for interventions related to COVID-19 prevention. Participants in all three research sites felt that adult female figures within households had a far-reaching influence on young people and male partners living within their households. Specific roles that adult female figures could play include being educators of those within their households, indicating a need for COVID-19 interventions that target women, and working with them to co-create communicative solutions for the potential roles that they can play as educators within their households. Women were further perceived to play a supportive role in encouraging health-seeking behaviours among men, with participants citing evidence of this with HIV health services, where women are the ones that encourage their partners to seek health services and adhere to health regulations.

According to participants' accounts in this study, women within families were already playing this role, albeit without support, suggesting that their potential was not utilized to its fullest extent. Women's roles in fostering positive behaviour change related to COVID-19 in this study can therefore be regarded as a *Positive Nurturer*, meaning that women's cultural identity within the home setting played a positive role in influencing positive COVID-19 prevention behaviours. It must be stressed, however, that targeting women within households should be done in a participatory process where women themselves are able to articulate possible communicative solutions for their role in the COVID-19 communication response. This study, therefore, argues for a community-engaged COVID-19 communication response that gives voice to women's voices and recognizes their significant role in influencing health decision-making related to COVID-19 within the family sphere. Dadzie, Ebron and Kipenda (2021), however, assert that the role of women in social, political, economic, and family spheres of life is highly contested, and women's voices remain underrepresented in decision-making due to ascribed gender roles. The identification of women's roles within families in this study should, therefore, not replace other key roles that women can play in broader political spheres as decision-makers and senior leaders in the COVID-19 response and future pandemic responses.

Neighbourhood

The *Neighbourhood* component of the *Cultural Identity* domain explores the role of the social context and communally held values in shaping health decision-making (Airhihenbuwa and

Webster, 2004). Community dialogues from Phase 1 revealed important insights pertaining to communally-held values that influenced decision-making around COVID-19. Ubuntu, a Nguni term that refers to “the ability in an African culture to express empathy or kindness to someone, the reciprocities that can be shared out of humanity and in solidarity, and support in building and instilling moral ethics” (Modise, 2021:6), was a major theme that influenced decision-making around COVID-19 in this study. For participants in this study, Ubuntu represented their collective *Cultural Identity*, as they felt that this was what characterized them as a community – the collective sense of taking care of each other.

Although findings in this study point to a dilemma where the exercising of the positive culture of Ubuntu rendered communities vulnerable to COVID-19 infections, there is scope for the mobilization of this concept in positively influencing health behaviour. The findings show that community expectations of communal living overrode COVID-19 safety concerns, meaning that the perceived risk of losing the cultural identity embedded within Ubuntu was stronger than that of contracting COVID-19. This underscores the centrality of culture in pandemic communication, as it demonstrates the ineffectiveness of prescriptive, one-way communication that addresses the individual outside of their cultural context, which is what Dutta (2021) refers to as hegemonic communication. The concept of Ubuntu presents opportunities for health communicators to rethink and/or re-imagine how communities can be involved in health decision-making in a way that provides space for communities to define for themselves how they can effectively respond to the threat of COVID-19, with Ubuntu as an asset, rather than a liability. This is an important consideration for future intervention planners in pandemic RCCE.

The overall conclusion in this study is that pandemic communication needs to be participatory and should incorporate community voices to inform containment and communication strategies. The field of health communication is dominated by Euro-Western-centric individual theories of behaviour change, which ignore the collectivist nature of African societies, resulting in health communication products that miss the mark in terms of influencing health behaviours (Gumede, 2022). The findings of this study demonstrate the futility of the one-size-fits-all communication approach employed in the SA government’s COVID-19 communication strategy, pointing to a need for community engagement at a more granular level. The mediating influence of culture is evident in the findings of this study, necessitating an approach that recognises the positive aspects of a culture that must be amplified, the existential aspects that

should not be changed, but instead should be mobilised for positive health outcomes, and the negative cultural aspects that should be discouraged and targeted for behaviour change efforts.

This study acknowledges that COVID-19 called for an immediate communication response, meaning that governments cannot be faulted for their predominantly one-way communication strategies to contain the possible effects of COVID-19. Lockdown regulations of social distancing challenged consultation and engagement opportunities as people were confined to their homes. Based on the above, one can argue that the South African government's communication response was well-intentioned and necessary at the time, as the government had a moral responsibility to communicate effectively to all segments of the country's population. However, the use of virtual community dialogues in resource-poor settings in this study, demonstrates the possibilities that exist for community engagement even during widespread movement restriction posed by COVID-19.

It is imperative for health communication scholars to challenge the silencing of voices that continue to remain at the margins, and to forge a scholarly dialogue that ensures that African ways of knowing are foregrounded in advancing an inclusive health communication agenda. The argument for health communication scholarship that “questions the question” (Airhihenbuwa, 2007:33) and which problematizes the application of individual-based theories of behaviour change is a valid one and may contribute to challenging the marginalization of African knowledge systems. As he aptly states, “questioning the question means to examine assumptions inscribed in the theories that have become the foundation for programs designed for Africans and people of African descent” (Airhihenbuwa, 2007:33). This has been described by others as “epistemic vigilance”, which is an argument for critically examining assumptions that inform the theoretical question (Mudimbe, 1988).

Contribution to knowledge

Theoretical

This study's unique contribution to knowledge is its application of the PEN-3 Model in COVID-19 communication, paving the way for similar applications in future pandemic communication efforts. Additionally, the PEN-3 Model has been applied in its entirety, with all three domains of the model being applied, filling a gap earlier identified by Iwelunmor et al. (2014), who stated that few studies apply the *Cultural Identify* domain, leading to a gap in

understanding its application in different contexts. The application of the PEN-3 Model in the field of Risk Communication and Community Engagement in three unique cultural settings in a South African context is also unique in this study, and serves to advance knowledge in the field of culture-centred health communication.

Methodological

In this study, I further claim methodological significance as I utilized virtual community dialogues in resource-poor settings, conducting research over a prolonged time period with communities in geographically dispersed settings. There was no evidence of previous virtual community dialogue applications in similar contexts. This study contributes to the body of knowledge on virtual research methods, particularly in resource-poor settings and over prolonged periods. Insights derived not only from the WhatsApp community dialogues but also from analysis of data gathered through this method further enrich the body of knowledge on virtual data collection methods.

Limitations of the study

As Iwelunmor et al. (2014) assert, the attention paid to contextual relevance in the PEN-3 Model renders findings un-transferrable to other contexts due to the uniqueness of cultural aspects of health behaviour from one context to another. However, the model is designed to capture unique cultural nuances within each context where it is applied, and this can be regarded as the model's strength.

The use of virtual community dialogues in this study deprived both the research participants and the researcher of face-to-face contact, which helps to strengthen relationships and helps in the observation of non-verbal cues that may add richness to the findings of the study. However, positive attributes of virtual community dialogues were observed in this study, which helped facilitate richer insights into the findings of the study.

Recommendations and areas for further research

While the concept of Ubuntu came out as a significant moderator of health decision-making related to COVID-19 in this study, there was limited scope for further exploring how it could be enacted in ways that render it a *Positive Enabler* in pandemic communication responses.

This is an interesting and needed area of research that can advance the recognition of positive aspects in a cultural context, advancing the field of pandemic culture-centred communication.

A policy recommendation in this study is for pandemic preparedness RCCE plans that prioritize the role of culture in influencing health decision-making at the community level and for the meaningful and participatory engagement of communities at a more granular level to ensure that community voices are amplified in pandemic communication responses.

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Appendix 1 – Participant Recruitment Screener

UKZN COVID-19 RESEARCH STUDY PARTICIPANT SCREENING FORM

Background

As part of a PhD study by a student from the University of KwaZulu-Natal (UKZN) exploring perceptions of COVID-19 communication, virtual community dialogues will be conducted via WhatsApp groups with members of different communities (township – Umlazi; rural – Umbumbulu; and informal settlement – Cato Manor).

Recruitment and selection of participants

In each area selected for this study, male and female participants will be recruited. In addition, the study aims for an equal representation of young and older participants in both male and female groups.

Summary of criteria:

- 4 females and 4 males per site
- Of the 4 females, 2 must be between 18 and 35 years old, and 2 must be 36 years old and above.
- Of the 4 males, 2 must be between 18 and 35 years old, and 2 must be 36 years old and above.
- All participants must be permanent residents of that area.
- All participants must have a smart phone with WhatsApp installed on the phone.
- All participants must be willing to take part in the study.
- All participants must be IsiZulu home language speakers.

Sample questions to ask when recruiting

1. Hello. My name is _____, and I am helping to recruit people who are willing to take part in a research study on COVID-19 from your community. Are you willing to answer a few questions?

- a. Yes (CONTINUE)
- b. No (THANK AND END)

2. First, I need to ask you some basic information. How old are you?

- a. 18 and under (THANK AND END)
- b. 19 – 35 (CONTINUE)
- c. 36 or older (CONTINUE)

Recruit 2 females between 19 – 35 years, and two females 36 years and older.

Recruit 2 males between 19 – 35 years, and two males 36 years and older.

3. Are you a permanent resident of this community?

- a. Yes (CONTINUE)
- b. No (THANK AND END)

4. Do you have a smart phone with WhatsApp installed?

- a. Yes (CONTINUE)
- b. No (THANK AND END)

5. Are you willing to take part in a study on COVID-19 that will be conducted by a UKZN PhD student over WhatsApp?

- a. Yes (CONTINUE)
- b. No (THANK AND END)

6. Is IsiZulu your home language?

- a. Yes (CONTINUE)
- b. No (THANK AND END)

7. If you agree to take part in this study, you will be provided with data to be able to participate in WhatsApp group discussions with the researcher. There will also be re-imbusement for your time used to participate in WhatsApp group discussions. There will be one face-to-face session that you will have with the researcher where you will have the opportunity to get to know more about the study and other details of your involvement. You will also get introduced to other participants that will be part of the study, as well as the researcher. All COVID-19 protocols of social distancing and sanitising will be adhered to at this introductory workshop. You will be re-imbursed for transport costs to the workshop venue. We will provide light refreshments at the venue after the discussion. Would you be interested in being part of this workshop?

- a. No (THANK AND END)
- b. Yes (RECORD NAME, AREA, MALE OR FEMALE, AND CONTACT DETAILS)

NAME:

AREA:

MALE/FEMALE:

CONTACT NUMBER:

Thank you for your time and for agreeing to participate in this discussion.

Appendix 2 – Community Dialogue Guide

RESEARCH INSTRUMENT 1: WHATSAPP COMMUNITY DIALOGUE GUIDE

Research Title: Local interpretations of COVID-19 communication and their influence on risk perception and self-efficacy in rural, township and informal settlement communities: A Case Study in KwaZulu-Natal.

Introductory questions

- How has COVID-19 affected you and others in your community?
- What have you seen and what are you currently seeing in terms of how people behave?
- What are your feelings about the situation that COVID-19 has brought into peoples' lives?

Research Question 1: *What are the perceptions of risk, threat and self-efficacy evident in local interpretations of the dominant mainstream preventive messages in the three research sites?*

Aim: Exploration of Positive, existential and negative perceptions

To explore positive, existential and negative perceptions of risk, threat and self-efficacy that motivate/discourage the adoption of prevention messages. How are these influenced by culture?

Perception of COVID-19 dominant messages

- What do you know about the prevention of infection with COVID-19?
- According to your knowledge, how effective is wearing a mask, handwashing, sanitizing, social distancing in protecting you against COVID-19?
- What do you think about the prevention measures that are recommended for the prevention of COVID-19 (*handwashing, sanitizing, mask-wearing, social distancing*)?
- What do you think about the additional measures recommended by government to limit the spread of COVID-19 (*public/religious gatherings, alcohol, curfews*)?
- Which measures are easy to do and which are difficult in your community and why?

Perception of personal susceptibility/risk

- How much at risk are you from getting infected with COVID-19? Why?
- How much are people your age at risk of getting infected with COVID-19? Why?
- Do you personally know someone who has tested positive for COVID-19?

Perception of self-efficacy

- On a daily basis, what do you do to reduce your risk of infection with COVID-19? How easy/difficult is it for you to do that?
- What is it that puts people in your community at risk of COVID-19 infection? (*probe for location/culturally specific activities like parties, traditional functions, traditional practices at funerals etc.*)

- How are people protecting themselves from COVID-19 on a daily basis in your community?

Research Question 2: *What are the social, structural and cultural factors that influence decision-making around COVID-19?*

Aim: To explore Positive, Existential and Negative Enablers

To explore what is needed in these communities to support the adoption of COVID-19 preventive messages? Is it accessible, affordable, acceptable? What is already available traditionally and what is lacking from what is needed to promote health decision-making?

- What determines your ability and that of other people in your community to protect yourselves from COVID-19? (*probe for what makes it easy or difficult and why*)
- What resources are there in your community that can promote the adoption of COVID-19 prevention messages? (*probe for faith organisations, stokvels, community forums etc.*)
- What resources are lacking that you think would make it easier for people to adopt preventive behaviours? How would having these resources make a difference?

Research Question 3: *How do personal and community networks influence the adoption of the dominant COVID-19 prevention messages?*

Aim: To explore Positive, Existential and Negative Nurturers

To explore positive personal and community influences on adoption of COVID-19 preventive messages, the influence of significant others and community contexts in making health decisions and choices within certain traditional values and practices and the influence of significant others and community contexts in negatively shaping health decisions and choices that contribute to the spread of COVID-19.

- Which people are sources of support in your life for adopting COVID-19 preventive behaviours? (*Think about people in your family, friends, in the community*)
- How do these people provide support for you and/or others?
- What family and/or community practices can you think of that may act as sources of support for people to adopt preventive behaviours?
- Which people make it difficult for you to adopt COVID-19 prevention behaviours?
- How do these people make it difficult for you to adopt these preventive behaviours?

Appendix 3 – Informed Consent Form (English)

Informed Consent Form: WhatsApp Discussion Group

Project title: *Local interpretations of COVID-19 communication, risk perception and self-efficacy in different geo-spatial locations in eThekweni Municipality during and post SA lockdown.*

Greetings,

My name is Nompumelelo Gumede from the Centre for Communications, Media and Society (CCMS) department at the University of KwaZulu-Natal (UKZN) in Durban.

Contact details

Nompumelelo Gumede
Centre for Communication, Media and Society
Howard College, University of KZN
Mazisi Kunene Road
Glenwood, Durban, 4041
Email address: 8729208@stu.ukzn.ac.za

Project Details

You are being invited to consider participating in a study that involves research which will be conducted online using WhatsApp. The aim and purpose of this research is to understand what people think about messages on COVID-19 prevention, the risks and threat of COVID-19 in their lives, and to see if there are ways in which these messages can be designed using people's real experiences and knowledge on the ground. The study is expected to enroll 48 participants in total from three areas, namely Umlazi, Umbumbulu and Cato Crest in Ethekewini Municipality. The results of the study will help the researcher to understand peoples' thoughts about COVID-19 communication and how we can work with communities to design messages that are relevant to them. This information may help governments and other organisations when they work on designing messages on COVID-19 and other pandemics in future.

Participation is Voluntary

You can choose whether or not you want to participate, you do not have to decide immediately. Participation is voluntary and participants are free to withdraw from the study at any stage, for any reason. If you agree to take part in the study, you will be asked questions around your perceptions, attitudes and knowledge about COVID-19 prevention strategies. You will not be asked to share any personal stories that you are not comfortable to share. You are not obliged to answer any questions that you are uncomfortable with. You are also free to withdraw from participating at any time and there will be no penalty or punishment for withdrawing. If you enroll in the study and you later wish to withdraw, you will be required to inform the researcher via WhatsApp or a phone call, and you will then be removed from the WhatsApp group. There may be times when it is necessary to remove you from the study if you do any of the following:

- If you do not participate in discussions on the group.
- If you show lack of respect for others in the group.
- If there is any other valid reason that the researcher feels that your participation is no longer beneficial to the study.

Study procedures

If you take part in this study, you will be required to do the following:

- You will be invited to join a WhatsApp group with the researcher and seven (7) other members from your community for a period of four weeks in April 2021;
- The researcher will lead discussions in the group;
- You will be invited to participate in WhatsApp group discussions by responding to questions from the researcher and/or comments made by others in the group;
- The WhatsApp group discussion will be about your experiences of COVID-19, your opinions, and what you've seen and heard in your community;
- You will be free to communicate in isiZulu or English;
- You will have the option to use your real name or a pseudo name if you do not wish to use your real name;
- At the end of the four weeks, the WhatsApp group will be closed and deleted.
- A second phase of the research will be done again in 2022 at a date still to be determined.

Data storage and confidentiality

Every effort will be made to protect your privacy and maintain confidentiality. The voice notes and written information from the WhatsApp group will not contain your name or other identifying information; they will only be labelled with a study number and stored on a computer that is password protected. This means that no one other than the research team will have access to your responses. The information that links you to research materials will be kept in a secure location and only people involved with the study will have access to it; they will be kept by UKZN for a period of 5 years. We will do our best to make sure that your personal information is kept confidential. Any information about you will be identified only by a code and not by name; the link between your name and code will only be kept in a secure location on a computer that is protected by a password. Any publication of this study will not use your name or identify you personally.

You will be asked to fill in a register with personally identifying information. Your personally identifiable information will be kept for as long as it is required for the purposes of this study, and will be destroyed after that. All attempts will be made to ensure that your personally identifiable information is protected from loss, misuse, unauthorised access, disclosure, and alteration. You have the right to access, upon request, any of your personally identifiable information, including the right to modify or delete any incomplete or inaccurate information.

Reimbursement

You will be re-imbursed for data costs to enable you to participate in the WhatsApp group discussions to the amount of R100. Reimbursement for time and travel will be R100. R50 of this amount will be paid at the beginning and R50 will be paid at the end of the four weeks.

Problems/Questions

In the event of any problems or concerns/questions you may contact Prof Eliza Govender at govendere1@ukzn.ac.za or 031 260 1813 or the **HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION**, Tel: 27 31 2604557 Fax: 27 31 2604609 Email: HSSREC@ukzn.ac.za.

CONSENT

- I _____ have been informed about the study entitled “Tailoring prevention efforts for an African context: A social-cultural perspective to exploring COVID-19 perceptions through community science engagement”
- I understand the purpose and procedures of the study.
- I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.
- I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any treatment or care that I would usually be entitled to.
- I have been informed that there is no monetary reimbursement for this study.
- If I have any further questions/concerns or queries related to the study I understand that I may contact the Principal investigator at Govendere1@ukzn.ac.za or on 031 260 1813.
- If I have any questions or concerns about my rights as a participant, or if I am concerned about an aspect of the project or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Signature of Participant

Date

**Signature of Witness
(Where applicable)**

Date

Signature of person obtaining consent

Date

Appendix 4 – Informed Consent Form (IsiZulu)

Ifomu lemvume: Ingxoxo yacwaningo enkundleni ka-WhatsApp

Isihloko Socwaningo: *Local interpretations of COVID-19 communication, risk perception and self-efficacy in different geo-spatial locations in eThekweni Municipality during and post SA lockdown.*

Ngiyabingelela,

Igama lami ngingu Nompumelelo Gumede. Ngisuka eCentre for Communications, Media and Society (CCMS) department eNyuvesi yaKwaZulu-Natali eThekwini.

Imininingwana yokuxhumana nami:

Nompumelelo Gumede

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Imininingwane Yocwaningo

Uyacelwa ukuba ube yingxenye yocwaningo oluzokwenziwa enkundleni ka WhatsApp. Inhloso yalolucwaningo ukuqondisisa imicabango yabantu ngemiyalezo ngobhubhane lweKhubethe-19, nanobungozi balesisifo ezimpilweni zabo. Ucwano siyafisa ukuba luveze nokuthi ngabe zikhona yini izindlela zokuqinisekisa ukuthi imiyalezo ngalesifo yakhiwe ngokubambisana nemiphakathi. Ucwano lulindeleke ukuba lbe nabantu abangama shumi aname nesishiyagalombili (48) azobe eqhanuka ezindaweni zaseMlazi, eMbumbulu kanye nase Cato Crest kumasipala weTheku. Sinethemba lokuthi imiphumela yalolucwaningo izokwandisa ulwazi mayelana nokuthi kungasetshenziswa kanjani nemiphakathi ukwakha imiyalezo ngokubambisana nemiphakathi. Lolulwazi siyethemba ukuthi lizokwelkelela noHulumeni kanye nezinye izinhlangano embhidlangweni wokwakha imiyalezo ngesifo soKhubethe Kanye nezinye ezingavela maphambilini.

Ukuzibandakanya kungukuzithandela

Ungakhetha noma uyazibandakanya noma awuzibandakanyi, akuphoqelekile ukuthi ukhethe manje. Noma ngabe uyavuma manje, ungawushintsha umqondo nanoma yingasiphi isikhathi. Ukuzibandakanya kungukuzithandela futhi abazibandakanyayo bakhululekile ukuhoxa ocwaningweni nanoma yingasiphi isikhathi, bahoxiswe nanoma yisiphi isizathu. Abazibandakanyayo banelungelo lokukhetha ukuyeka ukuzibandakanya engxoxweni nanoma yingasiphi isikhathi uma befisa kanjalo. Uma uvuma ukuba yingxenye yokuxoxisana nawe uwedwa noma niyiqenjana, uzobuzwa imibuzo mayelana nokuqonda kwakho imibono, izinkolelo kanye nolwazi ngezindlela zokuzivikela kuleli gciwane le COVID-19. Angeke ucelwe ukuthi wabelane nanoma yingaziphi izindaba ongakhululekile ukuthi ungatshela zona omunye umuntu. Uma ungathandi ukuphendula nanoma emiphi imibuzo, ungasho. Awuphoqelekile ukuthi unike isizathu ngokungaphenduli eminye imibuzo, noma unqaba ukuzibandakanya ezingxoxweni nethimba.

Uma ufisa ukuhoxa ocwaningweni uyacelwa ukuba wazise umcwano ngocingo noma ku WhatsApp. Emva kwalokho uzobe sewuyakhishwa e-groupini. Kungenzeka kuphoqekele ukuba nawe uhoxiswe kulolucwaningo uma wenza okunye kwalokhu okulandelayo:

- Uma ungalibambi iqhaza ezongxoxweni kuWhatsApp.
- Uma wenza okuthile okukhombisa ukungahloniphi abanye e-groupini.
- If you show lack of respect for others in the group.
- Kungenzeka kube nezinye izizathu eziholela ekutheni lumiswe lolucwaningo.

Imigomo yesifundo

Uma ubamba iqhaza kulesi sifundo, ulindeleke ukuthi wenze lokhu okulandelayo:

- Uzomenywa ukuba ube yingxenyane yeqembu lika WhatsApp, nabacwaningi kanye namanye amalungu ayisikhombisa asemphakathini wakho isikhathi esingamasonto amane.
 - Umcwaningi nguyena ozohola izingxoxo eqenjini.
 - Uzomenywa ukuba ubambe iqhaza ezingxoxweni zeqembu likaWhatsApp ngokuthi uphendule imibuzo evela kumcwaningi kanye noma nemibono eyenziwe amanye amalunga eqenjini.
 - Izingxoxo zeqembu likaWhatsApp zizobe zimayelana nezimo osudlule kuzo ngeCovid 19, imibono yakho, okubonile kanye nokuzwile emphakathini wakho.
 - Uzobe ukhululekile ukukhuluma ngesiZulu noma ngesiNgisi.
 - Uzobe unelungelo lokusebenzisa igama lakho langempela noma igama lakho lesidlalisano uma ungathandi ukusebenzisa igama lakho langempela.
 - Ekugcineni emva kwamasono amane, iqembu likaWhatsApp lizobe selivalwa futhi licishwe.
- Kunezinhlalo zokuqhubeka nesigaba sesibili salolucwaningo ngonyaka ka 2022 lapho ungacelwa ukuba ubambe iqhaza futhi.

Ukugcinwa nobumfihlo bolwazi

Izingxoxo/izingxoxo nethimba ziyiqoshwa ngomshini bese zigcinwa ziyimfihlo. Izingxoxo eziqoshiwe ziyogcinwa ziphephile iminyaka emihlanu e-UKZN. Ulwazi olunikezile angeke kwabelwane ngalo nabantu abangekho ocwaningweni. Nanoma oluphi ulwazi ngawe luyoba nenombolo kulona futhi igama lakho angeke liqoshwe noma libhalwe ocwaningweni. Ithimba labacwaningi lizoqinisekisa ukuthi liyazigcina izimfihlo. Nakuba, izimfihlo zingeke ziqinisekise kwamanye amalunga abambe iqhaza eqenjini. Uzokhuthazwa ukuba wabelane ngolwazi okhululekile ukuba lwabelwe abanye eqenjini.

Inkokhelo

Uzokhokhelwa ngezindleko zokuxhumana zesamba esngu R100 ukuze ukwazi ukubamba iqhaza ezingxoxweni zeqembu likaWhatsApp. Kunesibonelelo sika R100 ozosithola sokuba yingxenyane yalolucwaningo. uR50 uzokhokhwa ekuqaleni, kanti u R50 uzokhokhwa ekugcineni.

Izinkinga/Imibuzo

Uma unezinkinga noma okukukhathazayo/imibuzo, ungaxhumana nomcwaningi uProf Eliza Govender ku govenderel@ukzn.ac.za noma ku- 031 260 1813 noma i the **HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION**, Tel: 27 31 2604557 Fax: 27 31 2604609 Email: HSSREC@ukzn.ac.za.

UKUVUMA

Mina u _____ ngazisiwe ngocwaningo olisihloko sithi: *Local interpretations of COVID-19 communication, risk perception and self-efficacy in different geo-spatial locations in eThekweni Municipality during and post SA lockdown.*

Ngiyayiqonda inhloso nenqubo yocwaningo.

- Ukuzibandakanya kwakho kulolu cwaningo kungukuzithandela. Kuyisinqumo sakho ukuthi uyazibandakanya kulolu cwaningo noma cha.
- Ungakhetha ukungazibandakanyi kulolu cwaningo, noma uhoxe ocwaningweni nanoma yingasiphi isikhathi.
- Uma ngisenemibuzo/okungikhathazayo noma okungihluphayo mayelana nocwaningo, ngiyaqonda ukuthi ngingaxhumana nomcwaningi ku-govendere1@ukzn.ac.za/ noma ku- 031 260 1813.
- Uma ngisenemibuzo noma okungikhathazayo mayelana namalungelo ami njengozibandakanyayo, noma uma kukhona okungikhathazayo ngengxenye ethile yocwaningo noma abacwaningi, ngingaxhumana ne:

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Isiginisha Yozibandakanyayo

Usuku

**Isiginisha yafakazi
(Uma kunesidingo)**

Usuku

Isiginisha yomuntu owamukela imvume

Usuku

Appendix 5 – Gatekeeper Letter



07 October 2020

Re: Permission to access Sites for COVID-19 Research

Dear Prof Govender,

Thank you for your request to access AIDS Foundation of South Africa (AFSA) sites in eThekweni, KwaZulu Natal for your project titled: ***Tailoring prevention efforts for an African context: A socio-cultural perspective to exploring COVID-19 perceptions through community science engagement.***

This letter confirms AFSA's support to assist you and your team of PhD researchers (Ms Mpume Gumede, Ms Simamkele Bokolo) to gain access to the following locations:

- Umlazi (township)
- Umbumbulu (rural)
- Cato Crest (informal settlement)

AFSA will also assist where possible with the recruitment of participants for the purpose of this study.

The research team will be responsible to follow all COVID-19 lockdown regulations and will provide all their own PPEs.

Please feel free to contact myself should you need any clarity.

Yours sincerely,



Charlene Donald
Programme Manager: HIV Prevention
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