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**Title: Socio-cultural perspectives of suicidal behavior at the Coast region of Kenya: an exploratory study.**

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## ABSTRACT

**Objectives:** To explore perceived socio-cultural factors that may influence suicidality from key informants residing in coastal Kenya.

**Setting**: Mombasa and Kilifi Counties of Coastal Kenya.

**Participants**: 25 key informants including community leaders, professionals and community members directly and indirectly affected by suicidality

**Methods:** We conducted in-depth interviews with purposively selected key informants to collect data on socio-cultural perspectives of suicide. Thematic analysis was used to identify key themes using both inductive and deductive processes.

**Results:** Four key themes were identified from the inductive content analysis of 25 in-depth interviews as being important for understanding cultural perspectives related to suicidality: (i) the stigma of suicidal behavior, with suicidal victims perceived as weak or crazy, and suicidal act as evil and illegal; (ii) the attribution of supernatural causality to suicide for example due to sorcery or inherited curses; (iii) the convoluted pathway to care, specifically, delayed access to biomedical care and preference for informal healers; and (iv) gender and age differences influencing suicide motivation, method of suicide and care seeking behavior for suicidality.

**Conclusions**: This study provides an in depth understanding of cultural factors attributed to suicide in this rural community that may engender stigma, discrimination, and poor access to mental health care in this community. We recommend multipronged and multilevel suicide prevention interventions targeted at changing stigmatizing attitudes, beliefs and behaviors and improving access to mental health care in the community.


Key words: suicide, qualitative study, culture, sub-Saharan Africa, Kenya



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## Strengths and limitations of this study

- To our knowledge this is the first published study to qualitatively explore socio-cultural perspectives of suicide in Kenya.
- We present findings from a diverse and extensive pool of key informants.
- Saturation was reached in most layers of the various stakeholder groups.
- Our study findings may not be generalizable. Prejudices by the participants about suicide may be present. For example, healthcare workers may have a different perspective than traditional health practitioners.
- Due to the COVID-19 restriction, we focused on in depth individual interviews rather than include Focus Group Discussions (FGDs) that may have provided consensus on perspectives shared.

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## INTRODUCTION

Suicide is a devastating and serious public health challenge. Globally, it affects over 800,000 individuals annually, most of whom (79%) come from low- and middle-income countries (LMIC) [1]. Suicide prevention is a priority and recognized as a target for the United Nations Sustainable Development Goals (SDGs) in an integrated effort to meet urgent global environmental, economic and political challenges [2,3]. Some elements of suicidality are similar between LMIC and high-income countries (HIC), for example, the strong association with comorbid mental health disorders. However, variations in underlying risk factors, preferred methods and legal considerations have especially been highlighted between the two settings [4]. For instance, in Europe, substance use is strongly associated with suicidal behavior [5], whereas in sub-Saharan Africa poor socioeconomic status is identified as a crucial factor [6]. In addition, while firearms are a common method of suicide in the United States [7], in Africa, it is poisoning by agricultural pesticides and hanging [8]. These data are based on quantitative methodology, that may inherently fail to provide deeper insights on knowledge, beliefs, custom and practices related to suicidality, necessitating qualitative approaches to contextualize suicide especially in Africa, a region with a rich, distinct and diverse culture and religion [9].

Culture is a dynamic collection of customs, traditions and values to which a community or society ascribes [10],which may strongly influence an individual's perception of suicide [11]. Specifically, cultural values and societal structures impact on how a person perceives circumstances as risk and protective factors. For example, religiosity has been shown to be a protective factor for suicidality, through increased social integrations and hope created by religious beliefs, especially in areas with high religious homogeneity [12]. Some cultures completely censure suicide and view it as an abominable act [13], others may have some level of permissiveness [14] while others may view it as an honorable act [15,16]. Moreover, the meaning and consequence of a suicidal act is heavily influenced by cultural norms of a society. Suicide in parts of Eastern and Southern Africa was traditionally attributed to spirits and supernatural forces; the fear of its consequences often led to ritualistic cleansing ceremonies following a suicide death [17]. Whereas in some communities, suicide among certain groups of people for example the elderly was acceptable and was in fact considered heroic, e.g. among the Kalenjin of western Kenya [18]. Recent media reports in Kenya have highlighted a disturbing increase in suicide rates especially among males [19]. Masculinity issues have largely been considered to be a factor contributing to this high burden [20]. Culturally-informed qualitative data not only allows for a deeper understanding of social and cultural factors influencing suicidal behavior, but can also facilitate better understanding of the appropriate levels of care needed, identification of best persons to provide the care [21] and inform the development or adaptation of impactful culturally appropriate suicide prevention strategies.

Suicidal attempt is currently illegal in Kenya punishable by a jail term sentence of up to 2-years [22]. The criminalization of suicide is likely to impact Kenyans' perspectives and attitudes on



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suicide. However, to our knowledge no study has thus far explored what impact this legalistic element has on the socio-cultural perspectives of suicide at the Coast of Kenya. The Coast region of Kenya is a culturally unique and diverse setting stemming from the amalgamation of various ethnicities as well as diversity in religious beliefs. A population survey conducted in the Coast region found the suicide annual incidence rate of 4.61 per 100,000 population [6]. Suicide was three times higher in males and hanging was the most common method of suicide. A qualitative and cultural understanding of suicide in this community will help in understanding previous quantitative findings and in informing preventative strategies. This study sought to understand socio- cultural perspectives of suicide in the coast region of Kenya.

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# METHODS

## Study population and study design

Study Area

This study was conducted in Kilifi and Mombasa Counties located along the Kenyan coast of the Indian Ocean. Kilifi County has a population of approximately 1.4 million residents. The Kilifi County population comprises predominantly the Mijikenda ethnic group, a Bantu group of nine tribes with Giriama (45%), Chonyi (33%), and Kauma (11%) sub-groups dominating. The population is regarded as of low socioeconomic status, and of low literacy [23].

Mombasa is Kenya's oldest and second-largest city, and in 2019 had an estimated population of about 1.2 million people. The main ethnic communities found in Mombasa County are the Mijikenda, Swahili and Kenyan Arabs, with Mijikenda being the largest community [23].

## Sampling and participant selection strategy

In this study, we included adults residing in Mombasa or Kilifi Counties of Kenya that were willing to provide informed consent to participate in the study.

Key informants purposively sampled to participate included health care workers with experience of managing cases of suicidal behavior, persons known to have attempted suicide, local administrative leaders and the judiciary (police officer, chief and magistrate), clergy leaders and bereaved family members of persons who had died of suicide. We chose these stakeholder groups to provide a wider range of insight based on their first-hand knowledge and understanding being either a person with lived experience or a care and service provider for suicidal victims. Identification of study participants was through collaboration and guidance from the local community leaders such as the area chief and from health care workers in hospitals in Kilifi and Mombasa Counties. Some study participants for example traditional health practitioners and the clergy were identified through an existing research data base, whereby they had indicated their willingness to be contacted for future studies. We approached potential participants in person and provided an overview of what the study was about and invited them to go through the informed consent process to obtain a more detailed understanding of the study goal and activities. Patient participants and bereaved family members were linked through their healthcare providers and interviews were conducted within the health facilities. Health care workers, local administrative leaders, traditional health practitioners and the clergy leaders were approached at their workplace and interviews conducted in a private space at the same venue. Only the study participant and researchers were present during the interviews. The study information including participant information and audio recordings was kept confidential only accessible to study staff.

## Study Design



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In depth interviews were used to gather perspectives and experiences of key informant stakeholders residing at the Coast region of Kenya. Data collection was undertaken by L.O a research psychiatrist and M.W a research nurse with a bachelor of science both female scientists with experience and training in qualitative research. L.O has conducted previous studies in the subject of suicidality[24,25]. The interviews were carried out in English or Kiswahili the official languages of Kenya spoken by majority of Kenyans. Out of the 25 interviews conducted, 13 were in the Kiswahili and two had a mix of both English and Kiswahili. The interviews were audio recorded, translated and transcribed prior to analysis. The interviewers and the transcribers are fluent in both English and Kiswahili. The average duration of the interviews was approximately 30 minutes. The shortest interview lasted 16 minutes, (bereaved family member), while the longest interview lasted 1 hour, 27 minutes (social worker and bereaved family member). No repeat interviews were undertaken. In addition to audio recording, following the interview we documented striking observations using field notes.

The interview guide (Supplemental file 1) was developed based on the study's research question of trying to understand the perception of suicide in this community and local explanations for suicidality. We outlined broad areas of knowledge relevant to responding to our research question seeking to explore clinical and socio-cultural perceptions related to suicidal behavior at the Kenyan Coast. This process was guided by both literature review and clinical experience. We developed the open-ended questions with probes and shaped them to fit respondents to allow us to gain insights on respondents' behavior or experience, their opinions or beliefs, their feelings and knowledge of suicidality in that community. The interview guide was then piloted on a health care worker and social worker and a few changes to the flow and structure were done for better comprehension and to contextualize the questions to various key informant groups.

**Patient and Public Involvement statement**

Various stakeholders contributed in defining the research question and in the study design. Specifically, we engaged health care providers at various health facilities in the coast region to gain an understanding of the common care pathway in the region for persons with suicidal behavior. This informed our decision to explore cultural perspectives from the various key informants. By engaging community liaison officers in the area we were able to develop effective recruitment strategies for potential study participant. Aside from the publication, we plan to disseminate these findings to the community at the Coast region of Kenya through various media platforms.

**Analysis**

Qualitative analysis was conducted using both inductive and deductive theme identification. Following familiarization of the transcribed data, a coding schema was developed informed by the key research questions and was iteratively revised by adding new codes that reflect additional themes and topics that were generated from the data. The codes were then systematically applied across all the transcripts, using memos to elaborate upon the codes and their application. Two independent coders (LO and MW) blind coded the data to allow for inter-rater reliability. The



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3 218 overall percentage agreement was 98.4% while the Kappa coefficient was 0.77 representing
4 219 substantial agreement.

220 Thematic content analysis was facilitated by immersion in the data, through multiple readings of
221 the transcripts and memo writing to highlight emergent themes and insights. LO, MN and SK
222 independently reviewed the themes by closely examining the dataset and comparing themes
223 against each other to come up with the final list of defined themes. N-vivo version 12 software
224 was used to manage data analysis.

225

226 **RESULTS**

227 A total of 44 potential study participants were approached and requested to participate in the
228 study. Out of these 19 refused to participate. Reasons for refusal varied with the majority (n=13)
229 citing time constraints. Of the 25 participants interviewed, majority were male (68%), nearly half
230 of them were married (48%), and 60% had post-secondary level of education. The median age
231 for the study participants was 37 years (range:22-60 years). The category of participants with the
232 highest representation were health care workers (n=9) while the lowest representation was for
233 traditional health practitioners (n=2). Table 1 below shows the demographics and categorization
234 of the participants.

235 **Table 1: Sociodemographic characteristics of study participants.**

| **Characteristic** | **Total (N=25)** |
|---|---|
| **Sex (Male)** | 16 |
| **Age (Median, Range)** | 37 (20-61) |
| **Level of Education** | |
| No formal education | 1 |
| Primary level | 6 |
| Secondary level | 3 |
| Tertiary level | 15 |
| **County of Residence** | |
| Kilifi | 19 |
| Mombasa | 6 |
| **Religion** | |
| Christian | 20 |
| Muslim | 5 |
| **Marital Status** | |
| Single | 8 |
| Married | 13 |
| Separated/divorced | 4 |
| **Occupation** | |



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| | |
|---|---|
| Healthcare provider (doctors, nurses, clinical officers, counsellors, social worker) | 9 |
| Religious Leaders | 3 |
| Traditional Healers | 2 |
| Local administration officers (chief, police, magistrate) | 3 |
| **Prior Experience with mental health services** | |
| Provider of service | 12 |
| User of service | 7 |
| No direct experience | 6 |

We identified 4 key themes that influence suicidal behavior from a socio-cultural perspective. These included: i) the stigma of suicidal behavior, ii) the attribution of supernatural causality to suicide, iii) the convoluted pathway to care and iv) gender and age differences related to suicide.

## I. Stigma of suicidal behavior.

Stigma as portrayed in stereotypical perceptions, prejudice, and discrimination of victims of suicide and suicidal attempt was repeatedly brought out in the interviews.

### Negative perceptions of victims of suicide

The most common reported perceptions or descriptions of a suicide victim or person attempting suicide were weak, crazy and sinful. The suicidal act was perceived being evil and illegal, among others. Table 2 shows stereotypical descriptors of suicidal victims and the suicidal act itself that were brought up by participants.

**Table 2: Stereotypes of suicidal persons and the suicidal act.**

| *Suicidal Victim* | *Suicidal Act* |
|---|---|
| *Weak* | Taboo |
| *Cowardly* | A curse |
| *Cursed* | Bad Omen |
| *Burdensome* | Evil |
| *Bewitched* | Demonic |
| *A black sheep/outcast* | Illegal |
| *Crazy* | A criminal offence |
| *Mentally unstable* | Like having committed murder |
| *Odd* | Shameful |

A local administrative chief from one of the counties highlights how suicide is portrayed as weakness and a way of escaping from one's responsibilities. This was the commonest stereotype used to describe a suicide victim "*don't know how to express it, but they are viewed as mentally*



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*weak because they have failed to take responsibilities. When such issues come, you are not supposed to carry them personally and if something is stressing you, you are supposed to share with others*." (chief, ages 30-40)

A health care provider similarly reported on this negative perception related to the mental state of the suicidal victim. *"For suicide attempters, the community perceives them as crazy in some way, or as if they have some illness or as if they are tired of living and can't be helped. They tend to stigmatize and segregate them completely, like telling children not to go near them as they will teach them bad habits. In some places you will hear them saying; "don't go near that man, he tried to commit suicide."* (psychologist, ages 20-30).

**Prejudice against suicidal persons.**

Prejudicial perceptions and beliefs that persons with suicidal behavior were criminals who deserve some kind of punishment was noted. Nearly all interviewed study participants were aware that suicide was illegal in Kenya and many would quote this as a reason for the negative attitude towards suicidal persons. Some viewed the existence of the law as a protective factor for suicide. Others emphasized the unacceptable stance towards suicidality based on both Christianity and Islamic fundamental religious beliefs. A chief and a health care provider offer the legal perspective while a pastor observes the religious stance.

*"In my opinion if we can have a law that when we find in your family there is someone who has committed suicide … we punish the whole family by arresting them and keeping them in police custody for some time. Through this, people will fear to commit suicide because if one person commits suicide but all of you are arrested and spend like five years in jail, everyone will fear to commit that act"* (chief, ages 30-40-years old)

"*..That`s okay because that person who attempted suicide will attempt it again if left free. It is better they be kept in police custody for them to know that the country and the world needs them"* (clinical officer, ages 20-30-years old)

"*Well, I don't know about other religions but in Christianity, if you take your life, its equivalent to having committed murder. You have killed. The bible says thou shall not kill, so anybody that commit suicide, in the Christian circle, he is perceived to have bought a ticket to hell… Just as murder is not welcome*" (pastor, ages 40-50 years old)

*Discriminatory practices related to suicidality*

Persons found attempting suicide were reportedly harassed and abused by members of the public. Also, endorsed commonly is the atypical funeral and burial rites for suicide victims. The suicide victim in this case was viewed to be an outcast. Others mentioned burying suicide victims at night and would refrain asking a religious leader to officiate a ceremony due to the "sinful nature



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of the act." To avoid this level of discrimination families felt compelled not to disclose the real cause of death.

*"They segregate them instead of embracing them at the very least... They tend to bash them or criticize them. You find that most nonfatal suicide attempters are beaten up, like they undergo mob justice for instance in town…." (*psychologist, ages 20-30 years old*)*

*"If you have committed suicide, according to customs, like for the Giriama .. the day they are brought home, they are kept outside the compound. The grave is dug outside the compound and all ceremonies and burial will happen outside the compound because such a victim is considered to be a person of violence because they did not die naturally, but took their own lives …."* (traditional healer, ages 60-70 years old)

"*Suicide is like a curse in the community, even you cannot be buried together with the others. Like among the Mijikenda's, they normally bury at their homestead compounds. But a person who commits suicide is buried outside the home compound. It's a bad omen so if he is buried among the rest, he might bring a bad spirit*." (pastor, ages 40-50 years old)

"*..there are instances when the church will not bury people who have committed suicide...*" (priest, ages 40-50 years old)

## II. Attribution to supernatural causes of suicide

Even with the mention of existing immediate stressors such as financial strain, infidelity, chronic physical and mental illnesses, many still highlighted that the overarching push for one to consider ending their lives was supernatural in nature. This attribution centered around sorcery, evil/satanic spirit possession or inherited curses.

### Sorcery

A common belief in the community was that an individual who attempts suicide or dies by suicide is likely to have been bewitched. This belief was especially upheld if the suicide victim was young or successful. Often elderly persons in the community were suspected to be the sorcerers and behind such suicides.

"*They will always associate it with witchcraft, they will say spirits (majini) were thrown to him or her, Shulamoyo, they call it. Shula is like turning your heart back, it`s like upside down so that you don`t consider yourself worth, you feel you are worthless, you are hopeless, there is no reason for you to live so that you hang yourself and die."* (clinical officer, ages 30-40 years old)

### Spiritual possession

Others described suicidal intent as a powerful and impulsive spiritual force that overwhelms the individual, an evil or satanic spirit possession. Religious leaders are thus often sought for prayers to address these forces if an individual reports suicidal intent.



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*"it's like a spirit that gets in them. Like for me there is a time the spirit got into me because I was laid off at work. But those who found me attempting to commit suicide rebuked me and prayed for me and the suicidal thoughts went away."* (suicide attempt patient, ages 30-40 years old).

*"it is Satan and once he gets in him, he must complete the act… That thing because it is brought by Satan, it is usually very fast.."* (bereaved family member, ages 40-50 years old)

**Inherited curses**

Yet another supernatural attribution was that suicidality arose from inherited/ generational curses. Whereby a deceased family member may have snubbed a cultural or traditional taboo or flouted a norm. This belief was especially cemented by the nature of suicidal behavior in some cases running in families. Often, traditional healers are consequently consulted to perform rituals that remove these curses.

*"they can just pinpoint about that family and say that it's… a cursed family that is why it`s happening or it`s recurring in that community....* (psychiatric nurse, ages 30-40 years old)

*"The father to this young man now who wanted to commit suicide. So, remember what I told you about customs. This one stayed for more than thirty years but still came to haunt them. I called another brother of mine and told him to come because of what was happening. When he came and we told him the story he said when his father was killed, they said they buy a red goat to cleanse the home but some people opposed. So you see now it has come again to haunt them again." (*traditional healer, ages 60-70 years old*)*

**III. A convoluted pathway to care**

**Delay in allocation of treatment**

Participants interviewed reported that suicidal individuals seldom sought mental health care. Some reasons stipulated included a lack of awareness that the condition could be managed medically, lack of access to care, fear of legal repercussion and fear of stigma related to one being suicidal or of being labeled as a person with mental illness. Interaction with the health care system was often at the point of suicidal attempt when the individual needed emergency care.

"*…. I know of a cousin of mine who feels he needs help but now he doesn't know how he will do it, …should his parents have consent first before he goes. And if he is going to seek help where does he go to? He can't go to Kilifi … he says "when I go there I go sit there with people who are insane" … the unit is thought to be for the serious mentally ill people*" (suicide attempt patient, ages 20-30 years old)

*"I think it`s due to lack of awareness they will always come when they have attempted or they are in the wards...so you are called in the ward and when you ask them, this person has been having the ideas for almost … six months but they have been sharing with others and they are told to go for prayers or to persevere."* (clinical officer, ages 30-40 years old)



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*"...when any person attempts suicide sometimes they are held because they know when they are taken there it can be a case… sometimes they are told to just go to a private facility so that they can get help and things will be over because they know when they go to a public one then it can be a criminal"* …. (clinical officer, ages 30-40 years old)

**Care seeking from an informal provider**

Disclosure of suicidal ideation and intent when it happens would more commonly commence at the family level, family members would then link the individual to a religious leader for counseling and prayers.

*"Like me I got help when my mother saw me trying to hang myself, she said its better they take me to church so that I be prayed for. So, she took me to the church I was prayed for and that feeling ended.* (suicide attempt victim, ages 30-40 years old)

In other instances, the individual with suicidal thoughts and behavior would be linked to a traditional healer to allow for rituals and traditional medicine.

"*Yes, and in our place, we usually consult the witchdoctors, but me I refused to go to them because I am a Christian… When you go to church you are told that if you fast and pray God will help you out of all your troubles*" (suicide attempt victim, ages 20-30 years old)

Occasionally, these informal providers would then link the individual to the formal health care system when their methods fail and if they felt the individual would benefit from this care.

"*Generally, as a priest in the parish there is an area I can do and where I cannot do I have to refer, that is why I had to refer this person to a specialist who has done training in the area of counseling particularly in that area of suicide*." (priest, ages 40-50 years old)

**IV. Gender and age differences related to suicide**

**Gender differences**

Gender in this community was reported to influence suicide motivation, method of suicide as well as care seeking behavior. Specifically, due to the cultural strongly held gender role, placing men as the primary providers of the home. Perceived failure in this role secondary to unemployment and financial strain was mentioned as a key motivator of suicide in males.

*Yah, like even the gender role where people think the guy should provide for the family, so you find that even when your wife is working, some people actually commit suicide because they think the society is expecting them to still provide when they cannot.* (magistrate, ages 40-50 years old)

In contrast, it was reported that women's risk for suicidality was more likely to be triggered by stressors like intimate partner violence and relationship discord.



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Fatal suicidal behavior was in addition seemingly higher among men compared to women and this was attributed to the lethal methods of suicide employed by men such as hanging and jumping from heights as opposed to women who often attempted using poisoning or overdose of medication. In general care seeking was also higher in women compared to men.

"*Most women use poison.. So, you see poison once someone is rushed to the hospital, they are given some antidotes and the whole thing is taken from the system… but for the rope once it suffocates somebody dies. So, most men actually will use the rope."* (social worker and bereaved family member, ages 50-60 years old).

*..But for the male people they keep it to themselves their problems and normally most men even complete the suicide because they can use even lethal ways of doing it. But for the ladies you find they can speak about it before they do it and they can even use something like which is not lethal*... (nurse, ages 30-40 years old)

**Age differences**

The age of an individual was repeatedly mentioned as a risk factor for suicide. Suicide risk was perceived to be higher among adolescents and young adults compared to older persons. The reason given for this difference in risk was that older persons had developed better coping skills and hence were more capable of persevering in comparison to younger persons. However, others emphasized that the elderly in the community tended to experience a greater sense of loneliness, abandonment, and hopelessness a precipitant for suicidality in this age group.

*"Here in casualty, most people who attempt suicide are teenage especially from Pwani University"*. (doctor, ages 30-40 years old)

*"For old age, it's when they get to the stagnation phase… So, getting to a stage where they are stagnant, not progressing and are segregated.... Therefore, loneliness and feeling unappreciated or perceiving as if they are not appreciated since their families are not around contributes to suicide in old age." (*psychologist, ages 20-30 years old).

Suicide in an older person was viewed more permissive compared to a younger person. That the older person had lived their lives and had then resigned to end it was viewed as more rational than a younger person who still had more to give to the world. This was especially affirmed if the older individual was battling a chronic illness or disability. In some cultures, the death of a younger person by suicide would be attributed to witchcraft stemming from jealousy on the successes of that person. In such instances, elderly persons living in the community would be blamed or suspected to be behind this bewitching.

*"So, when a young person of 20 years commits suicide, it is easy for people to say his/her star was shining but because of witchcraft, they have committed suicide. But the older person, the perspective will be different*." (clinical officer, ages 40- 50 years old)

*"But for the old one, they will feel that this person has done his part even if he goes, maybe he has reached a point whereby he had found that he had accomplished what he wanted in life and*



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*therefore we are happy that he has gone. They have no problem with him."* (social worker and bereaved family member, ages 50-60 years old)

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## DISCUSSION

Our study found two broad and distinct patterns of themes. The first two themes on stigma and attribution of suicidality to supernatural forces are culture specific to this community, while the last two themes on a convoluted care pathway and gender and age differences are similar to what has been reported globally. Suicide is highly stigmatized in this rural community, where the. commonly endorsed belief was that supernatural agents contributed to causation of suicide. This in turn influenced care seeking behavior, with majority interacting with informal providers before presenting to health care facilities. Further, the age and gender of the suicidal individual was viewed to influence the risk, method of suicide, care seeking behavior as well as the community's attitude towards the suicide victim.

The World Health Organization recognizes stigma and taboo as a challenge and obstacle to suicide prevention efforts [26]. Stigma is often fueled by a lack of awareness of suicide as a health problem as well as existing taboos discouraging disclosure of suicidality. Our study found that stigma was directed towards the suicidal individual and in cases of fatal suicidal behavior, towards the bereaved family members. Similar to reports in the literature [27], we found that stigma impedes access to care when the persons experiencing suicidal ideation refrains from disclosing their thoughts or plans out of fear of discrimination. Suicide and stigma have a reciprocal relationship, with stigma increasing the risk of suicide and vice versa. [28] Stigmatizing attitudes and practices towards the bereaved survivors and the suicidal individual further increase stress in these individuals but also impede access to care consequently increasing suicide risk in these vulnerable individuals.

Stigmatizing attitudes and behavior can also be attributed to existing laws, especially in countries where suicidal attempts are retained as criminal offences [29]. Though most countries globally have decriminalized suicide [29], attempted suicide remains illegal in Kenya, punishable by up to a 2-year jail term sentence [22]. It is unclear to what extent this law is enforced among those implicated in suicide. Structural stigma emanating from policies and cultural norms in this community was emphasized more compared to self-stigma. Consequently, bereaved families would often misreport the cause of death to avoid judgement and blame, as well as to spare discriminatory practices towards the body of the deceased and the family. An exploratory study by Ohayi S et al [30] similarly found that bereaved suicide survivors would often deny and misreport suicide as cause of death because of fear of stigma. This misreporting contributes to underestimation of suicide statistics especially those highlighted in LMICs [31].

Attribution of death to supernatural agents has been documented in various cultures [13,32] and can be ascribed to the violent nature of suicide as a cause of mortality and by the complexity in its prediction and prevention [33]. Similarly, in this study both fatal and non-fatal suicidal behavior was attributed to supernatural agents as an explanation even in the presence of prevailing immediate stressor (such as depression or socio-economic distress). Importantly though, respondents did acknowledge feelings of low mood and hopelessness are linked to suicidal ideation. Understanding this cultural perspective is important in understanding the impact of the care pathway suicidal persons follow. Our study for example, found a delay in accessing health care as suicidal individuals would first seek help from religious leaders and



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traditional health practitioners, with others believing that prayers or traditional rituals would solely avert suicidal behavior. Other studies conducted in LMICs have found a similar tortuous pathway to care [34], perhaps emphasizing the need for raising awareness about mental health and suicide, training of gate keepers specifically traditional health practitioners and the religious leaders and the collaboration of health care workers with these community gate keepers as recommended by the WHO [29].

Our qualitative findings were in congruent with many studies that report higher suicide in males compared to females [4]. Houle and colleagues concluded in their study that traditional male gender role expectation of power and control increased the risk of suicide in males [35]. In that study, two key mediating factors contributing to this male predisposition were poor help-seeking behavior and low perceived social support compared to women, findings that are convergent with our reports. Additionally, the lethality of means has been shown to differ by gender, with males likely to use more lethal methods e.g. hanging thereby increasing their risk of completed suicide [36]. Similarly, participants in this study described men were more likely to attempt suicide by hanging contrary to women who commonly attempted with poisoning. An explanation for this provided in our interviews was gender difference in intentionality, that is men in general have a stronger intention to die of suicide compared to females, a phenomenon supported by Mergl et al [37]. These differences further underscore the importance of targeted gender based interventions such as reframing help seeking as masculine for men [38] and socioeconomic empowerment initiatives [39].

Suicide motivation and permissiveness differed by age group with older age group likely to report loneliness, abandonment and existing chronic illnesses as precipitants of suicide, while younger persons were reported to be triggered by interpersonal problems and financial strain as potential stressors contributing to suicidality. Winterrowd et al [40] similarly reported suicide was admissible among older persons. Chronic illness and disability were a common trigger of suicidality however, loneliness and feelings of abandonment were not highlighted in their study. A striking finding was that the elderly in the community were falsely blamed for witchcraft in suicide cases. Witchcraft allegations targeting the elderly is a common problem on the Kenyan coast, and many elderly people are attacked by mob justice. In response to this there are already ongoing awareness campaigns in the area dubbed "uzee si uchawi" translated as being elderly does not equate sorcery [41]. Awareness messaging for suicide prevention targeting the community can similarly focus on this vulnerable group of persons.

**Study strengths and limitation**

To our knowledge this is the first published study to qualitatively explore socio-cultural perspectives of suicide in Kenya. Secondly, we present findings from a diverse and extensive pool of key informants. Lastly, saturation was reached in most layers of the various stakeholder groups. For limitations, we recognize that qualitative research highlights perspectives and cannot be generalized to a broader population. Prejudices by the participants about suicide may be present. For example, healthcare workers may have a different perspective than traditional health practitioners. Due to the COVID-19 restriction, we focused on in depth individual interviews



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rather than additional Focus Group Discussions (FGDs) as had been earlier planned. FGDs are useful in gaining consensus on matters discussed. However, with suicide being a highly sensitive, criminalized and stigmatized subject in this region, in depth interviews do provide a safer and private environment for data collection hence allowing more open conversations. Also due to Covid-19 restrictions we did not return transcripts to participants for comments and corrections.

## CONCLUSION

Culture, specifically traditional norms, religion and criminalization of suicidal behavior appears to impact on how this community conceptualizes suicidality and may partially explain the discrimination and negative attitude towards persons needing specialized care related to suicidality. These stigmatizing attitudes in turn are seen to contribute to delayed care seeking behavior. Interventions that focus on stigma reduction such as educational campaigns and improving access to care for persons with suicidality and other mental health disorders are needed. We propose that future research should focus on testing multipronged and multileveled interventions that are targeted towards suicide stigma reduction. We recommend a coordinated approach at the national, county and community level to effectively address stigma and increase access to care for suicidal victims.

### Ethics Approval

The Kenya Medical Research Institute, Scientific and Ethics Research Unit (SERU) provided the Institutional Review Board (IRB) approval for this study (No: 3916).

## STATEMENTS

### Contributorship

L.O, S.K, J.T, B.P and C.N conceptualized and designed the study. M.N, L.O and C.T conducted the interviews. M.N and C.T translated and transcribed the data. L.O and M.N coded the data, L.O, S.K and J.T and M.N thematically analyzed the data. L.O, J.T, S.K and M.N wrote the first draft of the manuscript. All authors contributed to the interpretation and subsequent edits of the manuscript.

### Data sharing statement

Extra data is available by emailing longeri@kemri.org.

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## Competing interests

The authors declare no competing interest.

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Final Qualitative in depth Interview Probe Questions v 6.6 30th Jan 2020

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**Appendix 4- Guide Questions for Qualitative Interviews.**

## Section 1- In-depth Interviews

Instructions:

This form should be used for in-depth interviews

If the participants refuse to answer a question, circle the number of the question and do not mark any answers for that question. After obtaining informed consent, read the following instructions to the participants:

**"Due to different reasons, people may try to take their own lives. I would like to ask a few questions to allow us to understand how best to address this problem in the area. Please answer the questions as honestly as you can. Your information which I will write down will be kept private and this form will not have your name anywhere. All the information will be kept confidential until the conclusion of the study when it will be destroyed. If you have any questions or do not understand what I am asking you at any time, please ask for clarification.**

**Please remember that you do not have to answer any questions that you do not want to answer and you may discontinue the discussion at any time. Do you have any questions before we begin?"**

ID_______________________________________

Time_____________________________________

Date______________________________________

Name of Interviewer________________________________

County_____________________________________

Sub county __________________________________________

Village__________________________________________

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Final Qualitative in depth Interview Probe Questions v 6.6 30th Jan 2020

**Socio-Demographic Characteristics**

1. Sex Male ( ) Female ( )

2. Age in Years ______________________

3. Marital Status

Single

Currently Married

Divorced

Widow/ widower

4. Level of Education (Tick)

Never attended school

Did not complete primary school

Completed primary school but did not complete secondary school

Completed secondary school

Further studies after secondary school

Others, specify____________________________

5. Main occupation (Tick)

Peasant farmer

Small business (kiosk, kibanda)

Big business (shop)

Housewife

Salaried worker (teacher, police, chief)

Fisherman

Casual labourer

Others, specify_________________________

6. Religion (Tick)

Christian

Islam

Non-practicing

Others, specify___________________________

7. Prior experience with mental health services

Provider

Family member

User of service

Caregiver

No experience at all.

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**Actual Interview**

**Consider contexualizing this questions**
**For example:**
**For a magistrate/healthcareworker/police officer, commence by asking in your capacity as a………what is your role in interacting with either persons who have attempted suicide or their family. Do you feel well equipped to do so? If no, how can that be improved.**
**If for example interviewing someone with a personal experience (attempter, bereaved or affected in any way) ask them if they are willing to talk about their own experience. For example: what the trigger was for wanting to take their own life, did they seek help, how would the help be improved etc.**

**Exploring Risk Factors**

1. **What are some of the reasons someone would try to take their own life?**
   **Probe**
   a. **For difference in risk factors by gender and age. For example: do these reasons differ if someone is male or female, old or young?**
   b. **Probe whether there is a specific group of people or specific characteristics of a person that make them more likely to take their own lives.**

**Exploring Cultural Perspective of Suicide**

2. **These people who attempt to take their own life, or who unfortunately take their own life, how are they perceived by the community?**
   a. **Probe if these perceptions differ if say one is male or female, from a certain tribe or ethnicity, from a specific religion, of a certain age (old or young).**

**Exploring Suicide Prevention**

3. **Do people who try to take their own life seek any help? If yes, where do they seek help?**
4. **Do you think that people who try to take their own lives can be helped?**
   **If yes, how can they be helped? (If they give multiple options ask, what of those do you think would be most appropriate for this setting and why)**
   **If they say no to the help question, then probe why they think it's a no.**
5. **What can we do to reduce suicide in the community?**
   **Probe further along these themes. For example**
   a. **Say by addressing certain suicide methods/means/places.**
   b. **Say by addressing care**
   c. **Say be addressing religion**
   d. **Say be addressing the law.**

**THANK YOU VERY MUCH FOR YOUR COOPERATION.**

**Do you have any additional comments or questions that were not covered in the interview?**

Post Interview comment

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In this part of the interview the interviewer should write notes that detail his/her feelings, interpretations and other comments. This should be done immediately after conducting the interview.

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Final Qualitative in depth Interview Probe Questions v 6.6 30th Jan 2020

**Swahili Translation of Qualitative Questions**

**Sehemu-1 Mahojiano ya kina**

**Maagizo:**

**" Kwa sababu tofauti watu wanaweza kujaribu kujitoa uhai. Ningependa kuuliza maswali machache kuturuhusu kuelewa jinsi bora ya kutatua shida hii katika eneo hii. Tafadhali jibu maswali kwa uaminifu kadri uwezavyo. Habari yako nitakayoandika itahifadhiwa kibinafsi na fomu hii haitakuwa na jina lako mahali pengine. Habari yote itawekwa siri hadi hitimisho la utafiti litakapoharibiwa. Ikiwa una maswali yoyote au hauelewi wakati wowote tafadhali uliza ufafanuzi.**

**Tafadhali kumbuka kuwa sio lazima ujibu maswali yoyote ambayo hutaki kujibu na unaweza kuacha mazungumzo wakati wowote. Una maswali yoyote kabla ya kuanza.**

**Fact sheet**

ID______________________________________

Time____________________________________

Date_____________________________________

Name of Interviewer_____________________________

County____________________________________

Sub county ______________________________________

Village_____________________________________

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**Socio-Demographic Characteristics**

1. Jinisia: Mwanaume( ) Mwanamke ( )

2. Umri (miaka) ____________________

3. Hali ya ndoa

Pasipo mwenzi ( )

Nimo katika ndoa ( )

Talaka

Mjane ( )

4. Kiwango cha elimu (Tick)

Sijaenda shule

Sikumaliza shule ya msingi

Nimehitimu shule ya msingi

Nimehitimu shule ya upili

Nimehitimu masomo baada ya shule ya upili

Others, specify__________________________

5. Kazi kuu (Tick)

Mkulima mdogo

Biashara ndogo (kiosk, kibanda)

Biashara kubwa (shop)

Mke afanyaye kazi ya nyumbani

Mfanyakazi anayelipwa mshahara (teacher, police, chief)

mvuvi

mfanya kazi wa kibarua

Nyingine , Eleza_______________________

6. Dini

Ukristo

Uislamu

Asiyefuata dini yoyote

Nyingine, Eleza_________________________

**7** Uzoefu wa awali na huduma za afya ya akili

Watoa huduma

Mzazi

Anaye hudumiwa

Mlezi

Sina uzoefu wowote na huduma hizi.

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Final Qualitative in depth Interview Probe Questions v 6.6 30th Jan 2020

**Maswali ya Mahojiano ya Kina**

**Maswali yanayogusia sababu**

1. **Je, nielezee kwa maoni yako ni sababu gani ambazo zaweza kumfanya mtu atake kujitoa uhai?**
   **Uliza kwa kina:**
   a) **Kwa mfano, sababu hizi huwatafauti ikiwa mtu ni mwanamume au mwanamke, mzee au kijana.**

**Maswali yanayogusia desturi na utamaduni**

2. **Je, watu ambao wamejaribu kujitoa uhai au wamekamilisha kitendo hiki, hutazamiwa vipi na jamii au ukoo pale wanapotoka?**
   **Uliza kwa kina:**
   a) **Je, tazamo hili huwatofauti ikiwa mtu ni mwanamume au mwanamke, mzee au kijana, wa dini fulani, au wa kabila fulani?**

**Maswali yanayogusia njia za kuzuia kitendo cha kujitoa maisha**

3. **Je, watu ambao wanafikra za kujitoa uhai au waliojaribu kitendo hiki hutafuta msaada?**
   **Ikiwa ndio,**
   a) **Hutafuta msaada huu wapi?**

4. **Je, unaamini watu hawa ambao wanaojaribu kujitoa uhai waweza kusaidika?**
   **Ikiwa ndio,**
   a) **Waweza kusaidiwa kwa njia gani? (ikiwa njia nyingi zimetajwa uliza)**
   b) **Je, njia hizo ulizotaja ni gani ambazo zafaa zaidi katika eneo hili na kwa nini?**
   **Ikiwa la,**
   a) **Uliza kwa nini**
5. **Je, ni nini tunaweza kufanya ili kupunguza idadi ya watu ambao wanaojitoa uhai katika eneo hili?**
   **Uliza kwa kina: Kwa mfano**
   a) **Ukizingatia njia zinazotumiwa au mahali**
   b) **Ukizingatia matibabu au utunzaji**
   c) **Ukizingatia dini**
   d) **Ukizingatia sheria**

**Asante sana kwa ushirikiano wako.**

**Una maswali au maoni yoyote ambayo hayakuzingatiwa kwenye mahojiano?**

**Post Interview comment**

*In this part of the interview the interviewer should write notes that detail his/her feelings, interpretations and other comments. This should be done immediately after conducting the interview.*

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## COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| **Domain 1: Research team and reflexivity** | | | |
| *Personal characteristics* | | | |
| Interviewer/facilitator | 1 | Which author/s conducted the interview or focus group? | |
| Credentials | 2 | What were the researcher's credentials? E.g. PhD, MD | |
| Occupation | 3 | What was their occupation at the time of the study? | |
| Gender | 4 | Was the researcher male or female? | |
| Experience and training | 5 | What experience or training did the researcher have? | |
| *Relationship with participants* | | | |
| Relationship established | 6 | Was a relationship established prior to study commencement? | |
| Participant knowledge of the interviewer | 7 | What did the participants know about the researcher? e.g. personal goals, reasons for doing the research | |
| Interviewer characteristics | 8 | What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic | |
| **Domain 2: Study design** | | | |
| *Theoretical framework* | | | |
| Methodological orientation and Theory | 9 | What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis | |
| *Participant selection* | | | |
| Sampling | 10 | How were participants selected? e.g. purposive, convenience, consecutive, snowball | |
| Method of approach | 11 | How were participants approached? e.g. face-to-face, telephone, mail, email | |
| Sample size | 12 | How many participants were in the study? | |
| Non-participation | 13 | How many people refused to participate or dropped out? Reasons? | |
| *Setting* | | | |
| Setting of data collection | 14 | Where was the data collected? e.g. home, clinic, workplace | |
| Presence of non-participants | 15 | Was anyone else present besides the participants and researchers? | |
| Description of sample | 16 | What are the important characteristics of the sample? e.g. demographic data, date | |
| *Data collection* | | | |
| Interview guide | 17 | Were questions, prompts, guides provided by the authors? Was it pilot tested? | |
| Repeat interviews | 18 | Were repeat inter views carried out? If yes, how many? | |
| Audio/visual recording | 19 | Did the research use audio or visual recording to collect the data? | |
| Field notes | 20 | Were field notes made during and/or after the inter view or focus group? | |
| Duration | 21 | What was the duration of the inter views or focus group? | |
| Data saturation | 22 | Was data saturation discussed? | |
| Transcripts returned | 23 | Were transcripts returned to participants for comment and/or | |

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| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| | | correction? | |
| **Domain 3: analysis and findings** | | | |
| *Data analysis* | | | |
| Number of data coders | 24 | How many data coders coded the data? | |
| Description of the coding tree | 25 | Did authors provide a description of the coding tree? | |
| Derivation of themes | 26 | Were themes identified in advance or derived from the data? | |
| Software | 27 | What software, if applicable, was used to manage the data? | |
| Participant checking | 28 | Did participants provide feedback on the findings? | |
| *Reporting* | | | |
| Quotations presented | 29 | Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number | |
| Data and findings consistent | 30 | Was there consistency between the data presented and the findings? | |
| Clarity of major themes | 31 | Were major themes clearly presented in the findings? | |
| Clarity of minor themes | 32 | Is there a description of diverse cases or discussion of minor themes? | |

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

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# Title: Socio-cultural perspectives on suicidal behavior at the Coast region of Kenya: an exploratory qualitative study

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| Keywords: | Suicide & self-harm < PSYCHIATRY, QUALITATIVE RESEARCH, PUBLIC HEALTH |
| | |

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**Title: Socio-cultural perspectives on suicidal behavior at the Coast region of Kenya: an exploratory qualitative study.**

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## ABSTRACT

**Objectives:** To explore perceived socio-cultural factors that may influence suicidality from key informants residing in coastal Kenya.

**Design:** We used an exploratory qualitative study design.

**Setting**: Mombasa and Kilifi Counties of Coastal Kenya.

**Participants**: 25 key informants including community leaders, professionals and community members directly and indirectly affected by suicidality.

**Methods:** We conducted in-depth interviews with purposively selected key informants to collect data on socio-cultural perspectives of suicide. Thematic analysis was used to identify key themes using both inductive and deductive processes.

**Results:** Four key themes were identified from the inductive content analysis of 25 in-depth interviews as being important for understanding cultural perspectives related to suicidality: (i) the stigma of suicidal behavior, with suicidal victims perceived as weak or crazy, and suicidal act as evil and illegal; (ii) the attribution of supernatural causality to suicide for example due to sorcery or inherited curses; (iii) the convoluted pathway to care, specifically, delayed access to biomedical care and preference for informal healers; and (iv) gender and age differences influencing suicide motivation, method of suicide and care seeking behavior for suicidality.

**Conclusions**: This study provides an in depth understanding of cultural factors attributed to suicide in this rural community that may engender stigma, discrimination, and poor access to mental health care in this community. We recommend multipronged and multilevel suicide prevention interventions targeted at changing stigmatizing attitudes, beliefs and behaviors and improving access to mental health care in the community.


Key words: suicide, qualitative study, culture, sub-Saharan Africa, Kenya



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## Strengths and limitations of this study

- To our knowledge this is the first published study to qualitatively explore socio-cultural perspectives of suicide in Kenya.
- We present findings from a diverse and extensive pool of key informants.
- Saturation was reached in most layers of the various stakeholder groups.
- Our study findings may not be generalizable across different study participants and prejudices by the participants about suicide may be present.
- Due to the COVID-19 restriction, we focused on in depth individual interviews rather than include Focus Group Discussions (FGDs) that may have provided consensus on perspectives shared.

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## INTRODUCTION

Suicide is a devastating and serious public health challenge. Globally, it affects over 800,000 individuals annually, most of whom (79%) come from low- and middle-income countries (LMIC) [1]. Suicide prevention is a priority and recognized as a target for the United Nations Sustainable Development Goals (SDGs) in an integrated effort to meet urgent global environmental, economic and political challenges [2,3]. Some elements of suicidality are similar between LMIC and high-income countries (HIC), for example, the strong association with comorbid mental health disorders. However, variations in underlying risk factors, preferred methods and legal considerations have especially been highlighted between the two settings [4]. For instance, in Europe, substance use is strongly associated with suicidal behavior [5], whereas in sub-Saharan Africa poor socioeconomic status is identified as a crucial factor [6]. In addition, while firearms are a common method of suicide in the United States [7], in Africa, it is poisoning by agricultural pesticides and hanging [8]. These data are based on quantitative methodology, that may inherently fail to provide deeper insights on knowledge, beliefs, custom and practices related to suicidality, necessitating qualitative approaches to contextualize suicide especially in Africa, a region with a rich, distinct and diverse culture and religion [9].

Culture is a dynamic collection of customs, traditions and values to which a community or society ascribes [10],which may strongly influence an individual's perception of suicide [11]. Specifically, cultural values and societal structures impact on how a person perceives circumstances as risk and protective factors. For example, religiosity has in some studies been shown to be a protective factor for suicidality, through increased social integrations and hope created by religious beliefs, especially in areas with high religious homogeneity [12]. Some cultures completely censure suicide and view it as an abominable act [13], others may have some level of permissiveness [14] while others may view it as an honorable act [15,16]. Moreover, the meaning and consequence of a suicidal act is heavily influenced by cultural norms of a society. Suicide in parts of Eastern and Southern Africa was traditionally attributed to spirits and supernatural forces; the fear of its consequences often led to ritualistic cleansing ceremonies following a suicide death [17]. Whereas in some communities, suicide among certain groups of people for example the elderly was acceptable and was in fact considered heroic, e.g. among the Kalenjin of western Kenya [18]. Recent media reports in Kenya have highlighted a disturbing increase in suicide rates especially among males [19]. Masculinity issues have largely been considered to be a factor contributing to this high burden [20]. Culturally-informed qualitative data not only allows for a deeper understanding of social and cultural factors influencing suicidal behavior, but can also facilitate better understanding of the appropriate levels of care needed, identification of best persons to provide the care [21] and inform the development or adaptation of impactful culturally appropriate suicide prevention strategies.

Suicidal attempt is currently illegal in Kenya punishable by a jail term sentence of up to 2-years [22]. The criminalization of suicide is likely to impact Kenyans' perspectives and attitudes on



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suicide. However, to our knowledge no study has thus far explored what impact this legalistic element has on the socio-cultural perspectives of suicide at the Coast of Kenya. The Coast region of Kenya is a culturally unique and diverse setting stemming from the amalgamation of various ethnicities as well as diversity in religious beliefs. A population survey conducted in the Coast region found the suicide annual incidence rate of 4.61 per 100,000 population [6]. Suicide was three times higher in males and hanging was the most common method of suicide. A qualitative and cultural understanding of suicide in this community will help in understanding previous quantitative findings and in informing preventative strategies.

This study aimed at understanding socio- cultural perspectives of suicide in the coast region of Kenya. Specifically, we sought to understand the following research questions: i) What are the socio-cultural perspectives of suicide in the Coast region of Kenya; ii) Do these socio-cultural perspectives differ across various participants and mental health stakeholders? Are there age and sex differences in socio-cultural perspectives of suicide in the Coast region of Kenya?

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## METHODS

### Study population and study design

Study Area

This study was conducted in Kilifi and Mombasa Counties located along the Kenyan coast of the Indian Ocean. Kilifi County has a population of approximately 1.4 million residents. The Kilifi County population comprises predominantly the Mijikenda ethnic group, a Bantu group of nine tribes with Giriama (45%), Chonyi (33%), and Kauma (11%) sub-groups dominating. The population is regarded as of low socioeconomic status, and of low literacy [23].

Mombasa is Kenya's oldest and second-largest city, and in 2019 had an estimated population of about 1.2 million people. The main ethnic communities found in Mombasa County are the Mijikenda, Swahili and Kenyan Arabs, with Mijikenda being the largest community [23].

### Sampling and participant selection strategy

In this study, we included adults residing in Mombasa or Kilifi Counties of Kenya that were willing to provide informed consent to participate in the study.

Key informants purposively sampled to participate included health care workers with experience of managing cases of suicidal behavior, traditional health practitioners, persons known to have attempted suicide, local administrative leaders and the judiciary (police officer, chief and magistrate), clergy leaders and bereaved family members of persons who had died of suicide. We chose these stakeholder groups to provide a wider range of insight based on their first-hand knowledge and understanding being either a person with lived experience or a care and service provider for suicidal victims. Identification of study participants was through collaboration and guidance from the local community leaders such as the area chief and from health care workers in hospitals in Kilifi and Mombasa Counties. Some study participants for example traditional health practitioners and the clergy were identified through an existing research data base, whereby they had indicated their willingness to be contacted for future studies. We approached potential participants in person and provided an overview of what the study was about and invited them to go through the informed consent process to obtain a more detailed understanding of the study goal and activities. All study participants provided a written informed consent prior to participating in the study. Patient participants and bereaved family members were linked through their healthcare providers and interviews were conducted within the health facilities. Health care workers, local administrative leaders, traditional health practitioners and the clergy leaders were approached at their workplace and interviews conducted in a private space at the same venue. Only the study participant and researchers were present during the interviews. The study information including participant information and audio recordings was kept confidential only accessible to study staff.

### Study Design



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We employed an exploratory qualitative study design using in depth interviews to gather perspectives and experiences of key informant stakeholders residing at the Coast region of Kenya. Data collection was undertaken by L.O a research psychiatrist and M.W a research nurse with a bachelor of science both female scientists with experience and training in qualitative research. L.O has conducted previous studies in the subject of suicidality[24,25]. The interviews were carried out in English or Kiswahili the official languages of Kenya spoken by majority of Kenyans. Out of the 25 interviews conducted, 13 were in the Kiswahili and two had a mix of both English and Kiswahili. The interviews were audio recorded, translated and transcribed prior to analysis. The interviewers and the transcribers are fluent in both English and Kiswahili. The average duration of the interviews was approximately 30 minutes. The shortest interview lasted 16 minutes, (ages 20-30, bereaved family member), while the longest interview lasted 1 hour, 27 minutes (ages 50-60 social worker and bereaved family member). No repeat interviews were undertaken. In addition to audio recording, following the interview we documented striking observations using field notes. These field notes were used to better inform interpretation of transcribed data during coding and in the writing of the discussion.

The interview guide (Supplemental file 1) was developed based on the study's research question of trying to understand the perception of suicide in this community and local explanations for suicidality. We outlined broad areas of knowledge relevant to responding to our research question seeking to explore clinical and socio-cultural perceptions related to suicidal behavior at the Kenyan Coast. This process was guided by both literature review and clinical experience. We developed the open-ended questions with probes and shaped them to fit respondents to allow us to gain insights on respondents' behavior or experience, their opinions or beliefs, their feelings and knowledge of suicidality in that community. The interview guide was then piloted on a health care worker and social worker and a few changes to the flow and structure were done for better comprehension and to contextualize the questions to various key informant groups.

**Analysis**

Qualitative analysis was conducted using both inductive and deductive theme identification. Firstly, we familiarized with the transcribed data, and then developed a coding schema that was informed by the key research questions. This coding schema was iteratively revised by adding new codes that reflected additional themes and topics that were generated from the data. The codes were then systematically applied across all the transcripts, and used memos to elaborate upon the codes and their application. Two coders (LO and MW), independently coded the data to allow for inter-rater reliability. The overall percentage agreement was 98.4% while the Kappa coefficient was 0.77, which represented substantial agreement.

Thematic content analysis was facilitated by immersion in the data, which was done through multiple readings of the transcripts and memo writing to highlight emergent themes and insights. LO, MN and SK independently reviewed the themes, during which they closely examined the dataset and compared themes against each other to come up with the final list of defined themes. N-vivo version 12 software was used to manage data analysis.

**Patient and Public Involvement**



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3 222 Various stakeholders contributed in defining the research question and in the study design.
4 223 Specifically, we engaged health care providers at various health facilities in the coast region to
5 224 gain an understanding of the common care pathway in the region for persons with suicidal
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7 225 behavior. This informed our decision to explore cultural perspectives from the various key
8 226 informants. By engaging community liaison officers in the area we were able to develop
9 227 effective recruitment strategies for potential study participant. Aside from the publication, we
10 228 plan to disseminate these findings to the community and health policy makers at the Coast region
11 229 of Kenya through various media platforms.
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16 231 **RESULTS**

17
18 232 A total of 44 potential study participants were approached and requested to participate in the
19 233 study. Out of these 19 refused to participate. Reasons for refusal varied with the majority (n=13)
20 234 citing time constraints. Of the 25 participants interviewed, majority were male (68%), nearly half
21 235 of them were married (48%), and 60% had post-secondary level of education. The median age
22 236 for the study participants was 37 years (range:22-60 years). The category of participants with the
23 237 highest representation were health care workers (n=9) while the lowest representation was for
24 238 traditional health practitioners (n=2). Table 1 below shows the demographics and categorization
25 239 of the participants.
26
27
28 240 **Table 1: Sociodemographic characteristics of study participants.**

| Characteristic | Total (N=25) |
|---|---|
| **Sex (Male)** | 16 |
| **Age (Median, Range)** | 37 (20-61) |
| **Level of Education** | |
| No formal education | 1 |
| Primary level | 6 |
| Secondary level | 3 |
| Tertiary level | 15 |
| **County of Residence** | |
| Kilifi | 19 |
| Mombasa | 6 |
| **Religion** | |
| Christian | 20 |
| Muslim | 5 |
| **Marital Status** | |
| Single | 8 |
| Married | 13 |
| Separated/divorced | 4 |
| **Participant occupation/composition** | |

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| | |
|---|---|
| Healthcare provider (doctors, nurses, clinical officers, counsellors, social worker) | 9 |
| Religious Leaders | 3 |
| Traditional Healers | 2 |
| Local administration officers (chief, police, magistrate) | 3 |
| Persons with suicide attempt history | 4 |
| Bereaved family members by suicide | 8 |
| **Prior Experience with mental health services** | |
| Provider of service | 12 |
| User of service | 7 |
| No direct experience | 6 |

We identified 4 key themes that influence suicidal behavior from a socio-cultural perspective. These included: i) the stigma of suicidal behavior, ii) the attribution of supernatural causality to suicide, iii) the convoluted pathway to care and iv) gender and age differences related to suicide.

## I. Stigma of suicidal behavior.

Stigma as portrayed in stereotypical perceptions, prejudice, and discrimination of victims of suicide and suicidal attempt was repeatedly brought out in the interviews.

### Negative perceptions of victims of suicide

The most common reported perceptions or descriptions of a suicide victim or person attempting suicide were weak, crazy and sinful. The suicidal act was perceived being evil and illegal, among others. Table 2 shows stereotypical descriptors of suicidal victims and the suicidal act itself that were brought up by participants.

**Table 2: Stereotypes of suicidal persons and the suicidal act.**

| *Suicidal Victim* | *Suicidal Act* |
|---|---|
| *Weak* | Taboo |
| *Cowardly* | A curse |
| *Cursed* | Bad Omen |
| *Burdensome* | Evil |
| *Bewitched* | Demonic |
| *A black sheep/outcast* | Illegal |
| *Crazy* | A criminal offence |
| *Mentally unstable* | Like having committed murder |
| *Odd* | Shameful |



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A local administrative chief from one of the counties highlights how suicide is portrayed as weakness and a way of escaping from one's responsibilities. This was the commonest stereotype used to describe a suicide victim "*don't know how to express it, but they are viewed as mentally weak because they have failed to take responsibilities. When such issues come, you are not supposed to carry them personally and if something is stressing you, you are supposed to share with others*." (chief, ages 30-40)

A health care provider similarly reported on this negative perception related to the mental state of the suicidal victim. *"For suicide attempters, the community perceives them as crazy in some way, or as if they have some illness or as if they are tired of living and can't be helped. They tend to stigmatize and segregate them completely, like telling children not to go near them as they will teach them bad habits. In some places you will hear them saying; "don't go near that man, he tried to commit suicide."* (psychologist, ages 20-30).

**Prejudice against suicidal persons.**

Prejudicial perceptions and beliefs that persons with suicidal behavior were criminals who deserve some kind of punishment was noted. Nearly all interviewed study participants were aware that suicide was illegal in Kenya and many would quote this as a reason for the negative attitude towards suicidal persons. Some viewed the existence of the law as a protective factor for suicide. Others emphasized the unacceptable stance towards suicidality based on both Christianity and Islamic fundamental religious beliefs. A chief and a health care provider offer the legal perspective while a pastor observes the religious stance.

*"In my opinion if we can have a law that when we find in your family there is someone who has committed suicide … we punish the whole family by arresting them and keeping them in police custody for some time. Through this, people will fear to commit suicide because if one person commits suicide but all of you are arrested and spend like five years in jail, everyone will fear to commit that act"* (chief, ages 30-40-years old)

"*...That`s okay because that person who attempted suicide will attempt it again if left free. It is better they be kept in police custody for them to know that the country and the world needs them"* (clinical officer, ages 20-30-years old)

"*Well, I don't know about other religions but in Christianity, if you take your life, its equivalent to having committed murder. You have killed. The bible says thou shall not kill, so anybody that commit suicide, in the Christian circle, he is perceived to have bought a ticket to hell… Just as murder is not welcome*" (pastor, ages 40-50 years old)

*Discriminatory practices related to suicidality*



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Persons found attempting suicide were reportedly harassed and abused by members of the public. Also, endorsed commonly is the atypical funeral and burial rites for suicide victims. The suicide victim in this case was viewed to be an outcast. Others mentioned burying suicide victims at night and would refrain asking a religious leader to officiate a ceremony due to the "sinful nature of the act." To avoid this level of discrimination families felt compelled not to disclose the real cause of death.

*"They segregate them instead of embracing them at the very least... They tend to bash them or criticize them. You find that most nonfatal suicide attempters are beaten up, like they undergo mob justice for instance in town…." (*psychologist, ages 20-30 years old*)*

*"If you have committed suicide, according to customs, like for the Giriama ... the day they are brought home, they are kept outside the compound. The grave is dug outside the compound and all ceremonies and burial will happen outside the compound because such a victim is considered to be a person of violence because they did not die naturally, but took their own lives …."* (traditional healer, ages 60-70 years old)

"*Suicide is like a curse in the community, even you cannot be buried together with the others. Like among the Mijikenda's, they normally bury at their homestead compounds. But a person who commits suicide is buried outside the home compound. It's a bad omen so if he is buried among the rest, he might bring a bad spirit*." (pastor, ages 40-50 years old)

"*…there are instances when the church will not bury people who have committed suicide...*" (priest, ages 40-50 years old)

**II. Attribution to supernatural causes of suicide**

Even with the mention of existing immediate stressors such as financial strain, infidelity, chronic physical and mental illnesses, many still highlighted that the overarching push for one to consider ending their lives was supernatural in nature. This attribution centered around sorcery, evil/satanic spirit possession or inherited curses.

**Sorcery**

A common belief in the community was that an individual who attempts suicide or dies by suicide is likely to have been bewitched. This belief was especially upheld if the suicide victim was young or successful. Often elderly persons in the community were suspected to be the sorcerers and behind such suicides.

"*They will always associate it with witchcraft, they will say spirits (majini) were thrown to him or her, Shulamoyo, they call it. Shula is like turning your heart back, it`s like upside down so that you don`t consider yourself worth, you feel you are worthless, you are hopeless, there is no reason for you to live so that you hang yourself and die."* (clinical officer, ages 30-40 years old)

**Spiritual possession**



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Others described suicidal intent as a powerful and impulsive spiritual force that overwhelms the individual, an evil or satanic spirit possession. Religious leaders are thus often sought for prayers to address these forces if an individual reports suicidal intent.

*"it's like a spirit that gets in them. Like for me there is a time the spirit got into me because I was laid off at work. But those who found me attempting to commit suicide rebuked me and prayed for me and the suicidal thoughts went away."* (suicide attempt patient, ages 30-40 years old).

*"it is Satan and once he gets in him, he must complete the act… That thing because it is brought by Satan, it is usually very fast..."* (bereaved family member, ages 40-50 years old)

**Inherited curses**

Yet another supernatural attribution was that suicidality arose from inherited/ generational curses. Whereby a deceased family member may have snubbed a cultural or traditional taboo or flouted a norm. This belief was especially cemented by the nature of suicidal behavior in some cases running in families. Often, traditional health practitioners are consequently consulted to perform rituals that remove these curses.

*"they can just pinpoint about that family and say that it's… a cursed family that is why it`s happening or it`s recurring in that community....* (psychiatric nurse, ages 30-40 years old)

*"The father to this young man now who wanted to commit suicide. So, remember what I told you about customs. This one stayed for more than thirty years but still came to haunt them. I called another brother of mine and told him to come because of what was happening. When he came and we told him the story he said when his father was killed, they said they buy a red goat to cleanse the home but some people opposed. So you see now it has come again to haunt them again." (*traditional healer, ages 60-70 years old*)*

**III. A convoluted pathway to care**

**Delay in allocation of treatment**

Participants interviewed reported that suicidal individuals seldom sought mental health care. Some reasons stipulated included a lack of awareness that the condition could be managed medically, lack of access to care, fear of legal repercussion and fear of stigma related to one being suicidal or of being labeled as a person with mental illness. Interaction with the health care system was often at the point of suicidal attempt when the individual needed emergency care.

"*.... I know of a cousin of mine who feels he needs help but now he doesn't know how he will do it, ...should his parents have consent first before he goes. And if he is going to seek help where does he go to? He can't go to Kilifi … he says "when I go there I go sit there with people who are insane" … the unit is thought to be for the serious mentally ill people*" (suicide attempt patient, ages 20-30 years old)



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*"I think it`s due to lack of awareness they will always come when they have attempted or they are in the wards...so you are called in the ward and when you ask them, this person has been having the ideas for almost … six months but they have been sharing with others and they are told to go for prayers or to persevere."* (clinical officer, ages 30-40 years old)

*"...when any person attempts suicide sometimes they are held because they know when they are taken there it can be a case… sometimes they are told to just go to a private facility so that they can get help and things will be over because they know when they go to a public one then it can be a criminal"* …. (clinical officer, ages 30-40 years old)

**Care seeking from an informal provider**

Disclosure of suicidal ideation and intent when it happens would more commonly commence at the family level, family members would then link the individual to a religious leader for counseling and prayers.

*"Like me I got help when my mother saw me trying to hang myself, she said its better they take me to church so that I be prayed for. So, she took me to the church I was prayed for and that feeling ended.* (suicide attempt victim, ages 30-40 years old)

In other instances, the individual with suicidal thoughts and behavior would be linked to a traditional healer to allow for rituals and traditional medicine.

"*Yes, and in our place, we usually consult the witchdoctors, but me I refused to go to them because I am a Christian… When you go to church you are told that if you fast and pray God will help you out of all your troubles*" (suicide attempt victim, ages 20-30 years old)

Occasionally, these informal providers would then link the individual to the formal health care system when their methods fail and if they felt the individual would benefit from this care.

"*Generally, as a priest in the parish there is an area I can do and where I cannot do I have to refer, that is why I had to refer this person to a specialist who has done training in the area of counseling particularly in that area of suicide*." (priest, ages 40-50 years old)

**IV. Gender and age differences related to suicide**

**Gender differences**

Gender in this community was reported to influence suicide motivation, method of suicide as well as care seeking behavior. Specifically, due to the cultural strongly held gender role, placing men as the primary providers of the home. Perceived failure in this role secondary to unemployment and financial strain was mentioned as a key motivator of suicide in males.

*Yah, like even the gender role where people think the guy should provide for the family, so you find that even when your wife is working, some people actually commit suicide because they*



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*think the society is expecting them to still provide when they cannot.* (magistrate, ages 40-50 years old)

In contrast, it was reported that women's risk for suicidality was more likely to be triggered by stressors like intimate partner violence and relationship discord.

Fatal suicidal behavior was in addition seemingly higher among men compared to women and this was attributed to the lethal methods of suicide employed by men such as hanging and jumping from heights as opposed to women who often attempted using poisoning or overdose of medication. In general care seeking was also higher in women compared to men.

"*Most women use poison... So, you see poison once someone is rushed to the hospital, they are given some antidotes and the whole thing is taken from the system… but for the rope once it suffocates somebody dies. So, most men actually will use the rope."* (social worker and bereaved family member, ages 50-60 years old).

*..But for the male people they keep it to themselves their problems and normally most men even complete the suicide because they can use even lethal ways of doing it. But for the ladies you find they can speak about it before they do it and they can even use something like which is not lethal...* (nurse, ages 30-40 years old)

**Age differences**

The age of an individual was repeatedly mentioned as a risk factor for suicide. Suicide risk was perceived to be higher among adolescents and young adults compared to older persons. The reason given for this difference in risk was that older persons had developed better coping skills and hence were more capable of persevering in comparison to younger persons. However, others emphasized that the elderly in the community tended to experience a greater sense of loneliness, abandonment, and hopelessness a precipitant for suicidality in this age group.

*"Here in casualty, most people who attempt suicide are teenage especially from Pwani University"*. (doctor, ages 30-40 years old)

*"For old age, it's when they get to the stagnation phase… So, getting to a stage where they are stagnant, not progressing and are segregated.... Therefore, loneliness and feeling unappreciated or perceiving as if they are not appreciated since their families are not around contributes to suicide in old age." (*psychologist, ages 20-30 years old).

Suicide in an older person was viewed more permissive compared to a younger person. That the older person had lived their lives and had then resigned to end it was viewed as more rational than a younger person who still had more to give to the world. This was especially affirmed if the older individual was battling a chronic illness or disability. In some cultures, the death of a younger person by suicide would be attributed to witchcraft stemming from jealousy on the successes of that person. In such instances, elderly persons living in the community would be blamed or suspected to be behind this bewitching.



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437 *"So, when a young person of 20 years commits suicide, it is easy for people to say his/her star*
438 *was shining but because of witchcraft, they have committed suicide. But the older person, the*
439 *perspective will be different*." (clinical officer, ages 40- 50 years old)

440 *"But for the old one, they will feel that this person has done his part even if he goes, maybe he*
441 *has reached a point whereby he had found that he had accomplished what he wanted in life and*
442 *therefore we are happy that he has gone. They have no problem with him."* (social worker and
443 bereaved family member, ages 50-60 years old)

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3 445 **DISCUSSION**
4
5 446 Our study found two broad and distinct patterns of themes. The culture specific nature of the first
6 447 two themes on stigma and attribution of suicidality to supernatural forces was as striking in this
7 448 setting as it was found to be present in other communities in LMICs, while the last two themes
8 449 on a convoluted care pathway and gender and age differences are similar to what has been
9 450 reported globally. Suicide is highly stigmatized in this rural community, where the. commonly
10 451 endorsed belief was that supernatural agents contributed to causation of suicide. This in turn
11 452 influenced care seeking behavior, with majority interacting with informal providers before
12 453 presenting to health care facilities. Further, the age and gender of the suicidal individual was
13 454 viewed to influence the risk, method of suicide, care seeking behavior as well as the
14 455 community's attitude towards the suicide victim.
15
16 456 The World Health Organization recognizes stigma and taboo as a challenge and obstacle to
17 457 suicide prevention efforts [26]. Stigma is often fueled by a lack of awareness of suicide as a
18 458 health problem as well as existing taboos discouraging disclosure of suicidality. Our study found
19 459 that stigma was directed towards the suicidal individual and in cases of fatal suicidal behavior,
20 460 towards the bereaved family members. Similar to reports in the literature [27], we found that
21 461 stigma impedes access to care when the persons experiencing suicidal ideation refrains from
22 462 disclosing their thoughts or plans out of fear of discrimination. Suicide and stigma have a
23 463 reciprocal relationship, with stigma increasing the risk of suicide and vice versa. [28]
24 464 Stigmatizing attitudes and practices towards the bereaved survivors and the suicidal individual
25 465 further increase stress in these individuals but also impede access to care consequently increasing
26 466 suicide risk in these vulnerable individuals.
27
28 467 Stigmatizing attitudes and behavior can also be attributed to existing laws, especially in countries
29 468 where suicidal attempts are retained as criminal offences [29]. Though most countries globally
30 469 have decriminalized suicide [29], attempted suicide remains illegal in Kenya, punishable by up
31 470 to a 2-year jail term sentence [22]. It is unclear to what extent this law is enforced among those
32 471 implicated in suicide. Structural stigma emanating from policies and cultural norms in this
33 472 community was emphasized more compared to self-stigma. Consequently, bereaved families
34 473 would often misreport the cause of death to avoid judgement and blame, as well as to spare
35 474 discriminatory practices towards the body of the deceased and the family. An exploratory study
36 475 by Ohayi S et al [30] similarly found that bereaved suicide survivors would often deny and
37 476 misreport suicide as cause of death because of fear of stigma. This misreporting contributes to
38 477 underestimation of suicide statistics especially those highlighted in LMICs [31].
39
40 478 Attribution of death to supernatural agents has been documented in various cultures [13,32] and
41 479 can be ascribed to the violent nature of suicide as a cause of mortality and by the complexity in
42 480 its prediction and prevention [33]. Similarly, in this study both fatal and non-fatal suicidal
43 481 behavior was attributed to supernatural agents as an explanation even in the presence of
44 482 prevailing immediate stressor (such as depression or socio-economic distress). Importantly
45 483 though, respondents did acknowledge feelings of low mood and hopelessness are linked to
46 484 suicidal ideation. Understanding this cultural perspective is important in understanding the
47 485 impact of the care pathway suicidal persons follow. Our study for example, found a delay in
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accessing health care as suicidal individuals would first seek help from religious leaders and traditional health practitioners, with others believing that prayers or traditional rituals would solely avert suicidal behavior. Other studies conducted in LMICs have found a similar tortuous pathway to care [34], perhaps emphasizing the need for raising awareness about mental health and suicide, training of gate keepers specifically traditional health practitioners and the religious leaders and the collaboration of health care workers with these community gate keepers as recommended by the WHO [29].

Our qualitative findings were in congruent with many studies that report higher suicide in males compared to females [4]. Houle and colleagues concluded in their study that traditional male gender role expectation of power and control increased the risk of suicide in males [35]. In that study, two key mediating factors contributing to this male predisposition were poor help-seeking behavior and low perceived social support compared to women, findings that are convergent with our reports. Additionally, the lethality of means has been shown to differ by gender, with males likely to use more lethal methods e.g. hanging thereby increasing their risk of completed suicide [36]. Similarly, participants in this study described men were more likely to attempt suicide by hanging contrary to women who commonly attempted with poisoning. An explanation for this provided in our interviews was gender difference in intentionality, that is men in general have a stronger intention to die of suicide compared to females, a phenomenon supported by Mergl et al [37]. These differences further underscore the importance of targeted gender based interventions such as reframing help seeking as masculine for men [38] and socioeconomic empowerment initiatives [39].

Suicide motivation and permissiveness differed by age group with older age group likely to report loneliness, abandonment and existing chronic illnesses as precipitants of suicide, while younger persons were reported to be triggered by interpersonal problems and financial strain as potential stressors contributing to suicidality. Winterrowd et al [40] similarly reported suicide was admissible among older persons. Chronic illness and disability were a common trigger of suicidality however, loneliness and feelings of abandonment were not highlighted in their study. A striking finding was that the elderly in the community were falsely blamed for witchcraft in suicide cases. Witchcraft allegations targeting the elderly is a common problem on the Kenyan coast, and many elderly people are attacked by mob justice. In response to this there are already ongoing awareness campaigns in the area dubbed "uzee si uchawi" translated as being elderly does not equate sorcery [41]. Awareness messaging for suicide prevention targeting the community can similarly focus on this vulnerable group of persons.

## Study strengths and limitation

To our knowledge this is the first published study to qualitatively explore socio-cultural perspectives of suicide in Kenya. Secondly, we present findings from a diverse and extensive pool of key informants. Lastly, saturation was reached in most layers of the various stakeholder groups. For limitations, we recognize that qualitative research highlights perspectives and cannot be generalized to a broader population. Prejudices by the participants about suicide may be present. For example, healthcare workers may have a different perspective than traditional health



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practitioners. Due to the COVID-19 restriction, we focused on in depth individual interviews rather than additional Focus Group Discussions (FGDs) as had been earlier planned. FGDs are useful in gaining consensus on matters discussed. However, with suicide being a highly sensitive, criminalized and stigmatized subject in this region, in depth interviews do provide a safer and private environment for data collection hence allowing more open conversations. Also due to Covid-19 restrictions we did not return transcripts to participants for comments and corrections. Lastly, patient public involvement primarily focused on health care providers to inform the study design phase. This may have inadvertently limited the content of the interview guide.

## CONCLUSION

Culture, specifically traditional norms, religion and criminalization of suicidal behavior appears to impact on how this community conceptualizes suicidality and may partially explain the discrimination and negative attitude towards persons needing specialized care related to suicidality. These stigmatizing attitudes in turn are seen to contribute to delayed care seeking behavior. Interventions that focus on stigma reduction and improved access to care for persons with suicidality and other mental health disorders such as suicide decriminalization, community-based suicide literacy, educational campaigns and strengthening of mental health systems are needed in Kenya. We propose that future research should focus on testing multipronged and multileveled interventions that are targeted towards suicide stigma reduction. We recommend a coordinated approach at the national, county and community level to effectively address stigma and increase access to care for suicidal victims.

### Ethics Approval

The Kenya Medical Research Institute, Scientific and Ethics Research Unit (SERU) provided the Institutional Review Board (IRB) approval for this study (No: 3916).

## STATEMENTS

### Contributorship

L.O, S.K, J.T, B.P and C.N conceptualized and designed the study. M.N, L.O and C.T conducted the interviews. M.N and C.T translated and transcribed the data. L.O and M.N coded the data, L.O, S.K and J.T and M.N thematically analyzed the data. L.O, J.T, S.K and M.N wrote the first draft of the manuscript. All authors contributed to the interpretation and subsequent edits of the manuscript.

### Data availability statement

Deidentified coded data is available by emailing the corresponding author. We will use a data transfer agreement in order to ensure that the data are used according to our privacy policy.

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**Competing interests**

The authors declare no competing interest.

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**Supplemental File 1- Guide Questions for Qualitative Interviews.**

## Section 1- In-depth Interviews

Instructions:

This form should be used for in-depth interviews

If the participants refuse to answer a question, circle the number of the question and do not mark any answers for that question. After obtaining informed consent, read the following instructions to the participants:

**"Due to different reasons, people may try to take their own lives. I would like to ask a few questions to allow us to understand how best to address this problem in the area. Please answer the questions as honestly as you can. Your information which I will write down will be kept private and this form will not have your name anywhere. All the information will be kept confidential until the conclusion of the study when it will be destroyed. If you have any questions or do not understand what I am asking you at any time, please ask for clarification.**

**Please remember that you do not have to answer any questions that you do not want to answer and you may discontinue the discussion at any time. Do you have any questions before we begin?"**

ID______________________________________

Time____________________________________

Date_____________________________________

Name of Interviewer_______________________________

County____________________________________

Sub county __________________________________________

Village___________________________________________

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Final Qualitative in depth Interview Probe Questions v 6.6 30th Jan 2020

**Socio-Demographic Characteristics**

1. Sex Male ( ) Female ( )

2. Age in Years ____________________

3. Marital Status

    Single

    Currently Married

    Divorced

    Widow/ widower

4. Level of Education (Tick)

    Never attended school

    Did not complete primary school

    Completed primary school but did not complete secondary school

    Completed secondary school

    Further studies after secondary school

    Others, specify__________________________

5. Main occupation (Tick)

    Peasant farmer

    Small business (kiosk, kibanda)

    Big business (shop)

    Housewife

    Salaried worker (teacher, police, chief)

    Fisherman

    Casual labourer

    Others, specify_______________________

6. Religion (Tick)

    Christian

    Islam

    Non-practicing

    Others, specify_________________________

7. Prior experience with mental health services

    Provider

    Family member

    User of service

    Caregiver

    No experience at all.

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**Actual Interview**

**Consider contexualizing this questions**
**For example:**
**For a magistrate/healthcareworker/police officer, commence by asking in your capacity as a………what is your role in interacting with either persons who have attempted suicide or their family. Do you feel well equipped to do so? If no, how can that be improved.**
**If for example interviewing someone with a personal experience (attempter, bereaved or affected in any way) ask them if they are willing to talk about their own experience. For example: what the trigger was for wanting to take their own life, did they seek help, how would the help be improved etc.**

**Exploring Risk Factors**

1. **What are some of the reasons someone would try to take their own life?**
   **Probe**
   a. **For difference in risk factors by gender and age. For example: do these reasons differ if someone is male or female, old or young?**
   b. **Probe whether there is a specific group of people or specific characteristics of a person that make them more likely to take their own lives.**

**Exploring Cultural Perspective of Suicide**

2. **These people who attempt to take their own life, or who unfortunately take their own life, how are they perceived by the community?**
   a. **Probe if these perceptions differ if say one is male or female, from a certain tribe or ethnicity, from a specific religion, of a certain age (old or young).**

**Exploring Suicide Prevention**

3. **Do people who try to take their own life seek any help? If yes, where do they seek help?**
4. **Do you think that people who try to take their own lives can be helped?**
   **If yes, how can they be helped? (If they give multiple options ask, what of those do you think would be most appropriate for this setting and why)**
   **If they say no to the help question, then probe why they think it's a no.**
5. **What can we do to reduce suicide in the community?**
   **Probe further along these themes. For example**
   a. **Say by addressing certain suicide methods/means/places.**
   b. **Say by addressing care**
   c. **Say be addressing religion**
   d. **Say be addressing the law.**

**THANK YOU VERY MUCH FOR YOUR COOPERATION.**

**Do you have any additional comments or questions that were not covered in the interview?**

Post Interview comment

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In this part of the interview the interviewer should write notes that detail his/her feelings, interpretations and other comments. This should be done immediately after conducting the interview.

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**Swahili Translation of Qualitative Questions**

**Sehemu-1 Mahojiano ya kina**

**Maagizo:**

**" Kwa sababu tofauti watu wanaweza kujaribu kujitoa uhai. Ningependa kuuliza maswali machache kuturuhusu kuelewa jinsi bora ya kutatua shida hii katika eneo hii. Tafadhali jibu maswali kwa uaminifu kadri uwezavyo. Habari yako nitakayoandika itahifadhiwa kibinafsi na fomu hii haitakuwa na jina lako mahali pengine. Habari yote itawekwa siri hadi hitimisho la utafiti litakapoharibiwa. Ikiwa una maswali yoyote au hauelewi wakati wowote tafadhali uliza ufafanuzi.**

**Tafadhali kumbuka kuwa sio lazima ujibu maswali yoyote ambayo hutaki kujibu na unaweza kuacha mazungumzo wakati wowote. Una maswali yoyote kabla ya kuanza.**

**Fact sheet**

ID_______________________________________

Time_____________________________________

Date_____________________________________

Name of Interviewer______________________________

County___________________________________

Sub county _______________________________________

Village_________________________________________

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Final Qualitative in depth Interview Probe Questions v 6.6 30th Jan 2020

**Socio-Demographic Characteristics**

1. Jinisia: Mwanaume( ) Mwanamke ( )

2. Umri (miaka) ____________________

3. Hali ya ndoa

Pasipo mwenzi ( )

Nimo katika ndoa ( )

Talaka

Mjane ( )

4. Kiwango cha elimu (Tick)

Sijaenda shule

Sikumaliza shule ya msingi

Nimehitimu shule ya msingi

Nimehitimu shule ya upili

Nimehitimu masomo baada ya shule ya upili

Others, specify____________________________

5. Kazi kuu (Tick)

Mkulima mdogo

Biashara ndogo (kiosk, kibanda)

Biashara kubwa (shop)

Mke afanyaye kazi ya nyumbani

Mfanyakazi anayelipwa mshahara (teacher, police, chief)

mvuvi

mfanya kazi wa kibarua

Nyingine , Eleza_________________________

6. Dini

Ukristo

Uislamu

Asiyefuata dini yoyote

Nyingine, Eleza___________________________

**7** Uzoefu wa awali na huduma za afya ya akili

Watoa huduma

Mzazi

Anaye hudumiwa

Mlezi

Sina uzoefu wowote na huduma hizi.

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**Maswali ya Mahojiano ya Kina**

**Maswali yanayogusia sababu**

1. **Je, nielezee kwa maoni yako ni sababu gani ambazo zaweza kumfanya mtu atake kujitoa uhai?**
   **Uliza kwa kina:**
   a) **Kwa mfano, sababu hizi huwatafauti ikiwa mtu ni mwanamume au mwanamke, mzee au kijana.**

**Maswali yanayogusia desturi na utamaduni**

2. **Je, watu ambao wamejaribu kujitoa uhai au wamekamilisha kitendo hiki, hutazamiwa vipi na jamii au ukoo pale wanapotoka?**
   **Uliza kwa kina:**
   a) **Je, tazamo hili huwatofauti ikiwa mtu ni mwanamume au mwanamke, mzee au kijana, wa dini fulani, au wa kabila fulani?**

**Maswali yanayogusia njia za kuzuia kitendo cha kujitoa maisha**

3. **Je, watu ambao wanafikra za kujitoa uhai au waliojaribu kitendo hiki hutafuta msaada?**
   **Ikiwa ndio,**
   a) **Hutafuta msaada huu wapi?**

4. **Je, unaamini watu hawa ambao wanaojaribu kujitoa uhai waweza kusaidika?**
   **Ikiwa ndio,**
   a) **Waweza kusaidiwa kwa njia gani? (ikiwa njia nyingi zimetajwa uliza)**
   b) **Je, njia hizo ulizotaja ni gani ambazo zafaa zaidi katika eneo hili na kwa nini?**

   **Ikiwa la,**
   a) **Uliza kwa nini**
5. **Je, ni nini tunaweza kufanya ili kupunguza idadi ya watu ambao wanaojitoa uhai katika eneo hili?**
   **Uliza kwa kina: Kwa mfano**
   a) **Ukizingatia njia zinazotumiwa au mahali**
   b) **Ukizingatia matibabu au utunzaji**
   c) **Ukizingatia dini**
   d) **Ukizingatia sheria**

**Asante sana kwa ushirikiano wako.**

**Una maswali au maoni yoyote ambayo hayakuzingatiwa kwenye mahojiano?**

**Post Interview comment**

*In this part of the interview the interviewer should write notes that detail his/her feelings, interpretations and other comments. This should be done immediately after conducting the interview.*

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# COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| **Domain 1: Research team and reflexivity** | | | |
| *Personal characteristics* | | | |
| Interviewer/facilitator | 1 | Which author/s conducted the interview or focus group? | |
| Credentials | 2 | What were the researcher's credentials? E.g. PhD, MD | |
| Occupation | 3 | What was their occupation at the time of the study? | |
| Gender | 4 | Was the researcher male or female? | |
| Experience and training | 5 | What experience or training did the researcher have? | |
| *Relationship with participants* | | | |
| Relationship established | 6 | Was a relationship established prior to study commencement? | |
| Participant knowledge of the interviewer | 7 | What did the participants know about the researcher? e.g. personal goals, reasons for doing the research | |
| Interviewer characteristics | 8 | What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic | |
| **Domain 2: Study design** | | | |
| *Theoretical framework* | | | |
| Methodological orientation and Theory | 9 | What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis | |
| *Participant selection* | | | |
| Sampling | 10 | How were participants selected? e.g. purposive, convenience, consecutive, snowball | |
| Method of approach | 11 | How were participants approached? e.g. face-to-face, telephone, mail, email | |
| Sample size | 12 | How many participants were in the study? | |
| Non-participation | 13 | How many people refused to participate or dropped out? Reasons? | |
| *Setting* | | | |
| Setting of data collection | 14 | Where was the data collected? e.g. home, clinic, workplace | |
| Presence of non-participants | 15 | Was anyone else present besides the participants and researchers? | |
| Description of sample | 16 | What are the important characteristics of the sample? e.g. demographic data, date | |
| *Data collection* | | | |
| Interview guide | 17 | Were questions, prompts, guides provided by the authors? Was it pilot tested? | |
| Repeat interviews | 18 | Were repeat inter views carried out? If yes, how many? | |
| Audio/visual recording | 19 | Did the research use audio or visual recording to collect the data? | |
| Field notes | 20 | Were field notes made during and/or after the inter view or focus group? | |
| Duration | 21 | What was the duration of the inter views or focus group? | |
| Data saturation | 22 | Was data saturation discussed? | |
| Transcripts returned | 23 | Were transcripts returned to participants for comment and/or | |

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| Topic | Item No. | Guide Questions/Description | Reported on Page No. |
|---|---|---|---|
| | | correction? | |
| **Domain 3: analysis and findings** | | | |
| *Data analysis* | | | |
| Number of data coders | 24 | How many data coders coded the data? | |
| Description of the coding tree | 25 | Did authors provide a description of the coding tree? | |
| Derivation of themes | 26 | Were themes identified in advance or derived from the data? | |
| Software | 27 | What software, if applicable, was used to manage the data? | |
| Participant checking | 28 | Did participants provide feedback on the findings? | |
| *Reporting* | | | |
| Quotations presented | 29 | Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number | |
| Data and findings consistent | 30 | Was there consistency between the data presented and the findings? | |
| Clarity of major themes | 31 | Were major themes clearly presented in the findings? | |
| Clarity of minor themes | 32 | Is there a description of diverse cases or discussion of minor themes? | |

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

**Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.**

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