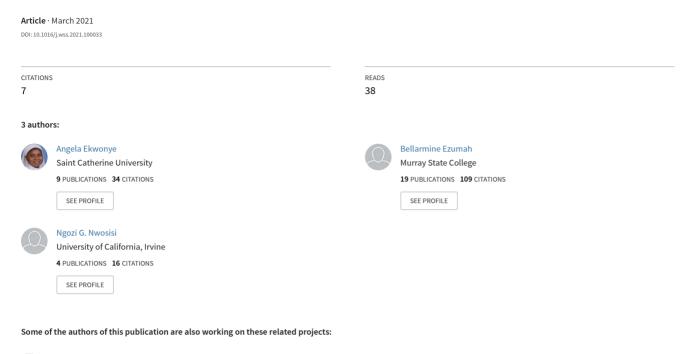
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Meaning in life and impact of COVID-19 pandemic on African immigrants in the United States



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ABSTRACT

This study explored the 2020 COVID-19 pandemic impact, with its unprecedented isolation norm and social distancing requirements, on African immigrants in the United States. We focused on the sources of meaning in their daily lives, how they navigated their meaning-making process, and cultural proclivities amidst the official and unofficial mandates for social distancing. Additionally, we investigated the role technologies play in the entire process. A qualitative inquiry conducted virtually generated data from a sample of 20 participants. Results show that African immigrants derive meaning from social relationships, personal life goals, religious faith, service, and good health. The COVID-19 pandemic undoubtedly threatened participants' core meaning sources, which they rely on for life satisfaction, personal growth, and healing. Various emergent technologies helped in ameliorating the situation by providing conduits for participants to engage, albeit virtually, in most activities that positively impact their lives. This study highlights clinicians' need to integrate meaning in life discussions in their African immigrant patients' care and incorporate congruent technologies as needed.

Introduction

Meaning emerges from the web of connections, interpretations, aspirations, and evaluations that comprehensively make one's experiences (Martela and Steger, 2016). Meaning in life is a part of human nature and not only central to pursuing a purposeful and goal-oriented life, but essential for health and well-being (Frankl, 1985). One's meaning in life can be disrupted by an unexpected, significant, adverse event (Skaggs and Barron, 2006). The COVID-19 pandemic is one such event that is not only causing loss of life but spreading human suffering and upending people's lives (World Health Organization, 2020). As of December 28, 2020, this emerging viral infection has affected over 19,191,583 million people, killed over 333,836, and is estimated to kill about 450,000 in the United States by February 2021 (Johns Hopkins Coronavirus Resource Center, 2020). To slow the spread of the virus, the CDC recommends limiting face-to-face contact with others, called social or physical distancing (Centers for Disease Control and Prevention [CDC], 2019). Social or physical distancing involves canceling large gatherings, closing schools, churches, and offices, quarantining individuals, and even sequestering entire cities or neighborhoods. Although it seems helpful in reducing the transmission rate, this crucial strategy is threatening an economic and social recession (Stephenson, 2020).

Social distancing may be more devastating to African immigrants who rely on their social, religious, and spiritual community to cope with and make meaning of significant negative situations (Ekwonye and Nwosisi, 2019). African immigrants find solace and meaning by actively engaging with their social, religious, and spiritual community (Ezenweke and Nwadialor, 2013 Ekwonye et al., 2018). Religion and spirituality continue to shape the personal and community identities of many immigrants (Leonard, 2005). Spirituality is an essential source of inner strength and resilience for many African immigrants in the United States (Babatunde-Sowole et al., 2016). Immigrants maintain and reinforce their religious and spiritual practices through attending church or mosque and prayer meetings. African immigrants particularly consider sacred places of worship as critical centers for health and successful integration (Agyekum and Newbold, 2016). Churches and mosques provide a place of worship for African immigrant communities and sources of familiar ethnic foods, community information, psychological and instrumental support (Agyekum and Newbold, 2016). A study of African immigrant communities living in Canada found that participants consider their churches and mosques as not only a place that provides members avenues to interact with God through prayers and worship but the opportunity to interact with each other, share ideas, views, and information (Agyekum and Newbold, 2016). African immigrants also consider

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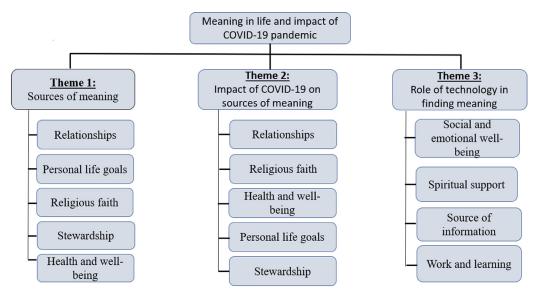


Fig. 1. Diagram of themes and categories used.

their worship places as the physical location of healing and spiritual connection (Agyekum and Newbold, 2016). Places of worship offer many African immigrants avenues to find meaning in life by connecting with self, others, and a Higher power. For Africans, to be human is to be in a community, participating in the beliefs, ceremonies, rituals, and festivals of that community (Mbiti, 1990). It is unclear how the COVID-19 pandemic has affected African immigrants' core sources of meaning.

Why target this population?

The number of African immigrants in the United States is steadily growing. In 2015, 2.1 million African immigrants lived in the United States, accounting for 4.8% of the U.S. immigrant population (Anderson, 2017). Most African immigrants come from Nigeria, Ethiopia, Egypt, Ghana, and Kenya, and made up half of the foreign-born African population in the U.S in 2015 (Anderson, 2017). Despite the growing number of immigrant population in the United States, health researchers often overlook them (Suárez-Orozco and Carhill, 2008) and tend to focus more on African Americans, Latino, Asian, and other immigrant populations (Cunningham et al., 2008; Omenka et al., 2020). Further, most studies on African Americans and health inequities leave out African immigrants (Commodore-Mensah et al., 2018; Venters and Gany, 2011), overlooking how their immigrant backgrounds affect their health (Chaumba, 2011). Not only do African immigrants worry about themselves, but they tend to also worry about the families they left behind at home (Amoyaw and Abada, 2016; Afulani et al., 2016). Hence, this study targeted African immigrants because very little is currently known about their core sources of meaning and how they deal with unexpected significant adverse events.

Aim of the present study

This study seeks to understand the impact of the COVID-19 pandemic on African immigrants' core meaning sources. The study will equally interrogate the extent to which new media technologies impact African immigrants' meaning-making process amidst the COVID-19 pandemic. Due to the sequestration, the constant mantra of social distancing, and the new norm of a "stay-at-home" lifestyle, people are resorting to social media and other emergent digital technologies for social connections and other essential activities such as e-learning, e-marketing, e-worshipping, (tele) e-medicine, etc. Social media networking sites and other digital interactive media conduits made these transitions possible. With the ubiquity of media and technology, especially emergent digital

technologies, lifestyles amidst the COVID-19 pandemic, albeit altered, have inadvertently been enhanced or at least furthered through technology. One of the earlier studies on the use of social media and emergent technologies in the 21st century indicate social media as formidable conduits for keeping in touch with friends and family, reconnecting with old friends and maintaining relationships, learning, entertainment, shopping, reading Bible verses, obtaining and sharing news, and simply, having something to do when bored (Ezumah, 2013). The overall research questions that guided the study were as follows: (1) What are the core sources of meaning for African immigrants? (2) How has the current COVID-19 crisis threatened African immigrants meaning in life? (3) How have emergent technologies, including social media networking conduits, impacted African immigrants' meaning-making process amidst the COVID-19 pandemic? The investigators developed the interview questions using Wong's (2017) essentialist perspective that meaning is at the core of human existence and is a pathway to survive and thrive in a chaotic world (Fig. 1).

Methods

Design

This study is an exploratory qualitative study to understand the impact of the COVID-19 pandemic on African immigrants' core meaning sources. We conducted in-depth interviews (IDIs) using a cell phone and/or computer with internet/video conferencing capabilities to maintain social distancing guidelines. The video conferencing option allows for observation of both verbal and non-verbal cues. This study was approved by the principal investigator's University Institutional Review Board (IRB): Protocol #1427.

Sampling procedures

Participants included in the study were over 18 years, fluent in English, and identified as an African-born immigrant. The investigators used snowball sampling to recruit initial participants through their contacts. Each investigator called, discussed, and shared the research opportunity with a potential participant, offering him/her the opportunity to participate. The potential participant was asked to contact the investigator via telephone or email if he/she is interested in participating in the study. Upon receipt of the email or phone, the investigators contacted potential participants and scheduled an interview time along with a link to Google Hangouts Meet. Forty-eight hours before the appointment, the

investigators sent a consent form to participants by email attachment. Interviews were conducted virtually, given the geographic distance between the interviewer and participants. Each interview session lasted for about fifty minutes. After each interview, the investigators asked the participant to identify others who have the requisite characteristics. In the end, the investigators conducted twenty in-depth interviews.

Participants

The participants of this study were 20 adults between the ages of 22 and 80 years. Seven males and 13 females participated in the study. Fourteen participants were from West Africa (Nigeria and Ghana), four from East Africa (Somali and Rwanda), and two from Central Africa (Democratic Republic of Congo). Participants work in healthcare and education fields, and hold various college degrees, including diploma, bachelor's, master's, or doctoral degrees. Their residence in the United States ranges from 4 years to 45 years. Eighteen participants are Christians, and two are Muslims. Participants live in different regions of the United States (New England, Mid-Atlantic, Southwest, Southeast, and Midwest). The investigators interviewed seventeen participants virtually, and three responded to the given questions through email.

Theoretical framework

Braun and Clark (2006) stressed the importance of having a theoretical framework and epistemological assumptions when reporting thematic research results. Our study is based on existential and contextual constructionist frameworks (Wong, 2017; Stiles, 1993). The existential perspective focuses on meaning as a pathway to survive and thrive in a crisis. This perspective offers a way to explore the richness and depth of human existence and the possibilities of living fully through meaningmaking (Wong, 2017). Our epistemological assumptions align with constructionism. A constructionist epistemology is based on the notion of permeability. It suggests that truth is not objective but is constructed through the interaction of research participants and the researchers (Madill et al., 2000). This perspective maintains that results will vary according to how the data is collected and analyzed (context). Context includes investigators' and participants' cultural and personal histories, including the observations' immediate setting (Stiles, 1993). Our findings are a representation of many possible truths and meanings articulated by participants. From our perspective, knowledge and reality are socially constructed, so the research findings are one of many possible interpretations of how participants make sense of the COVID-19 pandemic.

Data analysis

This research was conducted using a phenomenological approach. Thematic analysis was conducted based on the six phases described in Braun and Clarke (2006). First, the researchers familiarized themselves with the data by reading and re-reading each transcript. Second, two researchers independently coded all responses to each interview question. Each researcher-developed initial topic codes and were 91% in agreement. The researchers then met, reviewed, discussed, and resolved the remaining differences in the coding. Third, we used cue cards to generate descriptions for each code by questions, creating themes, by putting together similar codes. The two researchers worked collaboratively during this phase of data analysis. We frequently revisited codes from phase two and the original data from phase one. Fourth, we looked for categories by construct: sources of meaning, the impact of COVID-19 on meaning, and the role of technology in the meaning-making process. We looked for potential overlaps, similarities, and differences in how people responded to each question. To ensure the saturation of the data, we continually reviewed our categories, defined and refined them. Fifth, we defined and named the themes. During this phase, we went back and forth between the themes, codes, and participant responses. We noted examples of participant responses under each theme and category. Finally, we described the themes and categories for each construct. We included individual participant's quotes as examples of themes in the final report.

Findings

We will be discussing the categories that emerged from the sources of meaning, the impact of COVID-19 on sources of meaning, and the role of technology in finding meaning themes.

Theme 1: sources of meaning in life

Sources of meaning are areas of life from which people draw meaning and in which they invest their energy (Steger, 2017; Fischer et al., 2020). When participants were asked to talk about the sources of meaning in their lives, they described a wide diversity of sources. We identified five categories, namely: relationships, personal life goals, religious faith, stewardship, and health and well-being. Categories are presented in order of frequency, starting with the most common and ending with the least common category.

Relationships

Having relationships and connections were the strongest category that emerged. We identified this category when participants expressed meaning as experienced through having relationships with self, others, and a higher power. Fifteen out of twenty participants mentioned that being in a relationship is what gives them meaning in life. In the words of one participant, "My Connection with God and my connection to myself and connecting with others through different shared experiences and like interest. Those connections give my life meaning." We noted the importance of connectedness as a strong component of meaning in life. Previous research shows that having a relationship with self, others, and a higher power is a source of strength, courage, and healing during stressful life events (Delgado, 2005).

Personal life goals

Concerns over ultimate questions of meaning and existence, purpose and value are expressed in one form or another through personal goals (Emmons, 2005). Across the data, achieving personal life goals and a sense of fulfillment was another strong category. Three areas identified in this category include being employed, life accomplishments, and a sense of self. About half of the participants mentioned that having a job and life goals were sources of meaning in their life. According to one participant, "Having a job and a well-defined plan of action for the future is what gives me life's meaning." A feeling of life accomplishment was evident in some comments. For example: "I realize that I have been very successful in life, so being successful in life gives meaning to my life." Another participant added, "I mean my ambitions to fulfill certain goals that I hope to accomplish give my life meaning." The sense of self was portrayed by one of the participants who said, "What gives my life meaning is like understanding the truly great quality of life. Being better just on the outside as in the inside."

Religious faith

The importance of faith was another category that emerged in this study. Seven participants frequently referred to their faith in God as key to having a sense of meaning in their lives. We noted this in a comment such as, "My faith is the most important thing I rely on for meaning in life. I am a Christian that believes that there is a supreme being who is in control." Few believe that nothing happens without God's permission. "Nothing would actually happen without God permitting it to happen, so I believe that even when things look or sound negative or actually negative that God allowed them to happen for a reason. This belief helps me to go through any situation I find myself in, whether positive or negative." One participant shared how her Catholic faith gives her the greatest meaning in life, among other priorities.

Stewardshir

Stewardship, as a source of meaning, was identified when participants expressed a sense of responsibility and desire to change the world. This sense of service was mentioned by six participants and was evident in three areas: service to God, to the society, and people. One participant shared, "my service to God gives my life meaning." Three participants echoed the desire to make society better. An example includes: "When you wake up in the morning, you give thanks to God for all you have, and now you dress up and step out to work in the world to help build the world." The commitment to make a difference was evident in a different remark. "Taking care of people's needs and striving for the enthronement of justice in all spheres of life gives my life meaning, and this is why I became a critical scholar." Another participant shared, "I am here to serve the people and serve the universe." A different participant finds meaning in "doing something for the world and probably the universe." In the words of another participant, "COVID is not going to be here forever. I've to be cautious and protect myself, my environment, and people around me."

Health and well-being

Another source of meaning mentioned by participants is taking care of self physically and mentally. Three participants shared that having good health and taking care of themselves were sources of life's meaning. We noted this in a comment such as "Having good health is what gives me life's meaning." A different participant shared how being able to physically and mentally take care of herself increases her quality of life and so very meaningful to her. Another commented, "I will say gratitude for being healthy and for having food and where to sleep."

Theme 2: impact of COVID-19 on core sources of meaning

We derived five categories from this theme: relationships, religious faith, health and well-being, personal life goals, and stewardship. Categories in this theme are presented in order of frequency, starting with the most common and ending with the least common category.

Relationships

We noted that the pandemic significantly disrupted participants' relationships with friends and the faith community. These relationships are vital for African immigrants to navigate adverse life events (Ekwonye and Nwosisi, 2019). Three-quarter of the participants expressed missing their friends and lack of emotional satisfaction. One participant said: "I couldn't see friends anymore... we are asked to keep social distance, there is no emotional satisfaction." Another participant said: "You can't understand how much I miss having people around. It's been so hard especially for me who live alone." Comments from other participants conveyed how the pandemic created physical distances between friends and families. Relationships with others provide comfort, security, and support and are vital sources of emotional and physical well-being (Pietromonaco and Collins, 2017), so lack of such relationships may be detrimental to one's health and overall well-being.

The limit in large gatherings imposed to lower the spread of COVID-19 led to the closing or limit in the capacity of places of worship. We asked participants how the closing of worship places affected their core sources of meaning. Few participants expressed resentment on the shutdown. One participant said, "...this country, why should they shut down the most place that gives people hope. I mean the place that gives your life meaning, a place that makes you happy." The majority of participants in this study felt very devastated when churches were closed. In the words of one participant: "Truly, it was very devastating when the Church was closed. You lose the people that you interact with, the people that have come to seek God." Another participant recounted how the closing of the mosque made her feel empty. "Ramadan is always associated with gatherings and getting together in the community and building relationships. With the restrictions on the number of people that can come and even just social distancing protocol, it felt empty."

One participant narrated how the closing of churches affected her relationship with God. She said, "Prayer has always been a source of strength to me, especially when I pray with other people as a community of believers. But with the closing of places of worship, coming together with my parish community to pray as usual becomes practically impossible."

Despite the negative impact of COVID-19 on friendships and relationships with the faith community, three participants expressed that the pandemic brought their families closer. For example, one man said, "Because of COVID, the family stays together now. Everybody stays at home; there is no going out." Although most participants' responses show that the pandemic decreases physical connection between friends, family, and members of the faith community, a few respondents acknowledged that it increased family togetherness.

Religious faith

We noted that faith in God, a core source of meaning for many African immigrants (Ekwonye and Nwosisi, 2019), was negatively affected. Six participants questioned why God should allow the pandemic to occur. One participant shared, "Sometimes with people dying in hundreds, thousands and even more within a particular day or hour worldwide, statewide, nationwide. I begin to question whether God destined all these people to die at this same time." A participant who blamed God for allowing this calamity to occur commented, "When negative things are happening, even if God did not plan it to happen, he permitted it." Participants' faith was hugely affected when the government closed or reduced the capacity of places of worship to slow the spread of COVID-19. One participant mentioned how the closing of churches was a missed opportunity to demonstrate the power of God. "It made me question why we should do this, this is the time we should show our faith and belief instead of closing the Church." Four participants felt that churches' closing deprived them of the joy they feel whenever they go to Church. This was clearly evident in the words of one participant: "The Church was locked up. I mean something that gives me joy because when I go to Church anytime, I believe that I am so close to God and I pray. This makes me happy, all these makes me fulfilled and then COVID prevents all these." Another participant expressed how the closing of her Church not only deprived her of fully practicing her faith but introduced a certain amount of lukewarmness at the beginning.

On the other hand, five participants expressed that neither the pandemic nor the closing of their worship places affected their faith in the higher power. Six participants felt that the pandemic was a call to deepen one's relationship and faith in God. One participant responded, "I think it is a time for deepening of faith and questioning our odd traditions." Another participant felt that she got closer to God because she has more time to read the scriptures and pray. A different participant expressed that the pandemic was a call to re-evaluate his faith, relationship with God, and others.

Health and well-being

We constructed this category from participants' experience of various negative emotions and physical illness due to the pandemic. Twelve participants described how the pandemic triggered negative emotions such as fear, increased anxiety, depressive feeling, nervousness, despair, confusion, worry, etc. One student participant who felt defeated and overwhelmed expressed: "What's the point of anything right now, what's the point of going to school, what's the point of anything and everything." For another participant, the pandemic's stress made her question her self-worth and purpose in life. The negative emotions expressed by participants affected their physical health as well. One participant explained how he goes through anxiety and fear phases whenever he comes in contact with other people. "In the beginning, I was going through a lot of anxiety, especially after having contact with other people. After staying with the people, I would feel like everyone I had stayed with had the virus and therefore felt that the possibility of me getting infected was high. Even the ordinary headache that I used to feel before

COVID-19 gave me grave concern. Any slightest feeling of usual minor sickness triggered fear in me."

Personal life goals

The pandemic's impact on achieving personal life goals was another strong category that emerged in this theme. We constructed this category when participants expressed disruptions, delay, defeat, or difficulty achieving or meeting basic needs, life goals, and ambitions. Ten participants explained how the pandemic delayed either their academic, career or other life goals. One participant who expected to graduate in May 2020 lamented how she could not complete her internship due to the closing of different workplaces. Few participants described how the pandemic affected their career goals. In the words of one participant: "COVID has also affected my job search, as many employers have put a hold on recruitment." A different participant expecting the arrival of his family in the United States was worried about not having his family join him this year and probably next year. He said, "... but it has delayed a lot on my way like the reunification of my family." A financial problem created by the job loss and difficulty finding a job was another negative impact of the COVID-19 pandemic. Seven participants reported experiencing financial hardships either due to a pay cut, loss of a job, or inability to find a job. One participant said, "... we got a cut from work and were told we don't go back to our regular pay till January 2021." Few participants expressed frustration at not finding a job or losing a job due to the closing of different establishments. "COVID has really affected me adversely. First, I lost my job as an adjunct faculty at a university, and the financial implications of that are dire for my family." Three participants reported experiencing difficulty getting necessary supplies and usual resources. One participant said, "It has been very challenging. Now with regards to food, there is no food. People find it difficult to get supplies." A student participant narrated how she was unable to access her usual school resources and other community resources.

Stewardship

Three participants expressed that they go to Church not only to pray, worship, and interact with others but provide service to the Church through faith instruction. One of the measures to lower the COVID-19 infection was the closing of worship places. Some participants lamented how they are no longer able to interact or carry out some volunteer church services. For example, one participant said, "Most of the time people come to church to share opinions or do some teachings and catechism of the faith." Another participant added: "One of the things that fuels my faith is teaching Catechism in my Parish, preparing young children for their first confession and communion. Due to this pandemic, all religious education was stopped in my Parish, and I could not complete the instruction. This deprived me of the joy and sense of fulfillment of seeing my children in their white clothes beaming with pride and happiness as they receive the Holy Communion!" One participant shared how the pandemic enhanced her sense of altruism. She said, "I've made up my mind to take care of people who are not as opportune as me."

Theme 3: impact of technology in the meaning-making process

Technology has become essential during this period of isolation and social distancing due to the COVID-19 pandemic. People have relied on traditional and social media to learn, stay connected, get useful information, and for spiritual support (Ezumah, 2013; Goldschmidt, 2020). We constructed this theme from questions about the role of technology in the meaning-making process during the COVID-19 pandemic, and the kinds of activities participants do with the given technology or social media. Four categories derived from this theme are discussed based on the frequency of responses starting with the most common and ending with the least common.

Social and emotional well-being

In the era of social distancing and restrictions on large gatherings, traditional and social media have provided a platform to help individuals make sense of the COVID-19 crisis. Although social media receives backlash for having adverse effects on mental health, there are benefits to using technology that we can leverage (Garfin, 2020). For instance, in this study, social media for social and emotional support emerged as the strongest category in this theme. Fourteen participants reported using platforms such as Zoom, Google Hangouts Meet, WhatsApp, Facebook, Instagram, FaceTime, Duo, etc., to connect with family and friends. Participants reported that social media was a huge source of emotional relief. According to one participant, "Without social media, I don't think I would have been stable. I would have been boiling right now." Social media played a significant role in enhancing emotional connectedness between friends and family. "Social media helps to get us connected with our loved ones even though it is not the same, but it is better than not having any." Another participant narrated how technology became her new-found support. She said, "Social media ... made me not to feel alone in my circumstance, and there were a lot of messages of support and understanding, and even comic relief." Social media also provided a platform for unifying people worldwide, as exemplified by this response: "COVID separated us, but technology reconnected us. Social media is making the world to be one." Overall, social media provided a platform that helped participants to create positive meaning events.

Spiritual and religious support

Spirituality enhances one's ability to make meaning when faced with a stressful situation and often promotes successful coping, adaptation, and well-being (Gall et al., 2005). Thirteen participants reported that both traditional and social media were means of spiritual sustenance during this pandemic. Our results corroborated a previous study that cited social media as a means of deepening one's faith through reading the Bible (Ezumah, 2013). One participant shared, "Thank God for the gift of technology and social media to our today's world. I believe my parishioners have found them helpful in staying connected with the Church and in strengthening their faith." Another participant revealed how she depended on the television to obtain words of encouragement and motivation from her Pastor. "Technology helped because since you cannot go to church, it was helpful at this time to motivate people and to encourage us to hang on to our faith." For a different participant, social media technology became a source of hope.

Source of information

Finding a cause for a significant adverse event leads to an understanding of the event's significance and impact on life experience (Skaggs and Barron, 2006). One of the classical functions of media is to inform the masses and previous studies ranked this function equally high for social media networks (Ezumah, 2013). Correspondingly, in this study, eight participants relied on traditional and social media to look for answers regarding the emerging COVID-19, test sites, and mitigation measures. One woman said, "I use TV more or less as a source of information. I needed to know exactly what the symptoms are regarding this COVID. I needed to know how the people who had it were able to fight it. I needed to know what the fact is with all the things that we are hearing, so I relied mostly on cable news believing that they will give me those insights." Another participant described how she found lots of information about mental health support, which was previously inaccessible. She said, "I found a lot of mental health-related content that was geared towards black women. Some pages are dedicated to connecting people to free mental service virtually." She narrated how she engaged with the content and got tips and ideas, which helped ease her emotional pain. Two participants relied on social media to update the most recent police brutality incidents and measures they are using to enforce civic violations. One participant shared that social media helped her to learn the language of advocacy.

Work and learning

Four students who participated in the study narrated how social media helped them to complete their school work for the semester. Several studies also showed that accessibility to technology mediates academic performance in students from economically disadvantaged backgrounds (Yang et al., 2019; Ezumah, 2020). In this current study, one participant said, "I did the pre and final defense of my dissertation with my academic committee on Zoom." Another participant shared, "Without technology I wouldn't have been able to complete my school work." One of the participants who is a college instructor described how social media helped her to engage, interact, and face time with her students despite the physical distance. She said, "Our students didn't feel it much because we were there for them." A participant who is a frontline worker described how she uses Zoom to do patient outreach (telehealth). Overall, technology helped participants to make meaning of the COVID-19 pandemic, find purpose, and maintain physical and emotional well-being.

Discussion

In this study, we explored the sources of meaning for African immigrants, the impact of COVID-19 on core sources of meaning, and technology's role in the meaning-making process. Our results show that African immigrants derive meaning from social relationships, personal life goals, religious faith, service, and good health. Most participants experience meaning from at least two sources. Relationships were the most prominent source of meaning for respondents. Relationships and interconnectedness play an essential role in African worldviews (Ezenweke and Nwadialor, 2013). Participants stressed the importance of connecting with self, family, friends, community, and divinity, giving them the most significant meaning in life. Our finding is in line with previous studies (Cram, 2018; Zhang et al., 2019). The importance and significance of specific relationships can vary based on the cultural context and life situations (Wissing et al., 2020). For Africans, relationships are not simply ways in which the individual realizes his/her objectives, but an essential element of the personhood of which the quality of a person depends on the intensity of maintaining these relationships (Ezenweke and Nwadialor, 2013). A relationship can positively contribute to the experience of meaning in life. When it is threatened by a significant unexpected negative event such as COVID-19, individuals are likely to feel lonely or socially isolated. They may experience a loss of sense of belonging. Closing or limiting the capacity of worship places to lower the spread of COVID-19 significantly disrupted participants' ability to interact with others resulting in increased social isolation, emotional loneliness, anger, and decreased sense of belonging. Africans view relationships as part of their value system and a source of personal growth, satisfaction, happiness, joy, pleasure, and inner state of well-being (Wissing et al., 2020). When relationships are severed, feelings of hopelessness, meaninglessness, and defeat ensue. Our participants reported such feelings.

The pandemic also affected other personal areas in the immigrants' lives, including personal achievement and goal attainment. Achieving personal life goals is the second most prominent source of meaning in life. Life goals that give participants meaning in life include having a job, life accomplishments and success, and a sense of self (strength and confidence). Pursuit and attainment of life goals and a feeling of fulfillment and happiness accompanying goal attainment have been noted to be a strong component of meaning in life (Martela and Steger, 2016). The shutdown of different establishments to contain the infection rate of COVID-19 pandemic had significant negative impacts on the participants' financial, career, academic, and other life goals. Fulfillment of life goals provides one with a sense of engagement, direction, and purpose in life (George and Park, 2016). The inability to achieve one's life goals can lead to a sense of despair and a lack of purpose (Steger, 2017). In general, attainment of life goals has been shown to have many benefits for mental as well as physical well-being (De Jong et al., 2020), especially during a crisis such as the COVID-19 pandemic (Trzebiński et al.,

Religious faith was the third source of meaning in life for participants and is in line with Wissing et al. (2020). They found spiritual/religion the second most prominent source of meaning in life in three African

samples. The traditional African man or woman is religious to the core of his/her being. Religious faith tends to be the main principle that dominates Africans' lives and sets the tone in their relationships with nature and others. Africans believe that there can be no meaningful human relations without the abstract qualities that religion offers (Ezenweke and Nwadialor, 2013). Participants in this study reported that they rely on their faith for help and guidance through different life situations. Previous findings show that religious faith not only gives a sense of meaning in life to individuals but can provide a framework for understanding the world (Steger and Frazier, 2005; Park, 2010). When places of worship were closed due to the COVID-19 pandemic, some participants questioned their faith. Some others blamed God for allowing such a massive toll of human suffering and thousands of people's deaths to occur. For some, the closing of their churches prevented them from fully practicing their faith and deprived them of the joy they derive when they go to Church. For one participant, the closing of churches was a missed opportunity to demonstrate the power of God over the pandemic. Conversely, some participants reported that the pandemic did not affect their religious faith, while others felt it was a call to strengthen their faith and get closer to God.

Stewardship was the fourth source of meaning in life for study participants. Participants expressed their stewardship in taking care of people's needs, service to God, helping to build the world, and doing good in the world. Love and service toward others as sources of meaning in life are well documented in the literature (Callister et al., 2019). Studies show that being of service to others creates an atmosphere of love, joy, inner peace, and healing (Ekwonye and Nwosisi, 2019). However, the occurrence of the COVID-19 pandemic thwarted participants' ability to engage in different forms of service. Participants particularly mentioned that their inability to provide faith instruction or volunteer in other religious ministries robbed them of their sense of happiness and communion with others. Not a lot of research has examined whether it makes a difference in what sources of meaning people have. A previous study reported that people who find meaning from altruistic sources are happier and experience more meaning than those who get their meaning from self-centered or materialistic sources (Schnell, 2009).

Health and well-being were the least sources of meaning in life that participants in the study mentioned. Few shared that having good health and taking care of themselves were a source of life meaning. For one participant, gratitude to God for being healthy and having food and shelter gives his life meaning. This finding is in line with previous research that found that people who find their lives meaningful express more positive feelings and vitality (Steger, 2017). Unfortunately, the COVID-19 pandemic disrupted this core source of meaning by triggering negative emotions such as fear, anxiety, anger, confusion, despair, nervousness, worry, sadness, hopelessness, and worthlessness among participants. Participants were not only fearful of their lives but the lives of their loved ones near and far. Research shows that better physical and psychological health is related to a greater sense of meaning in life (Hooker et al., 2018). When a significant unexpected adverse event such as COVID-19 occurs, individuals' health and well-being are threatened. To make meaning of the challenges created by the unexpected COVID-19 pandemic, participants turned to technology.

Participants relied on technology to cope with the widespread health, social, economic, and emotional distress and understand the significance and impact of the pandemic in their lives. They expressed the value of personal handheld devices such as phones, tablets, personal computers, and platforms such as Facebook, WhatsApp, Instagram, Twitter, etc., in coping with the social distance instituted in response to the pandemic. Many reported that traditional and social media platforms helped them to regain their emotional stability, reduce boredom, connect with loved ones, obtain mental health resources, and sustain their faith. This finding is in line with a previous study that found the use of technology in connecting with others and with the divine (Ezumah, 2013). Technology helped some participants attain their goal of completing school and work-related activities. For many of the

participants, social media helped them understand the symptoms and mode of transmission of COVID-19, the protective measures, and testing sites. Understanding the meaning and impact of a negative situation allows one to regain a sense of coherence (Park, 2016). Interestingly, the COVID-19 pandemic separated people, but technology reconnected people, keeping life moving. Overall, technology was a useful and indispensable tool in helping participants integrate the COVID-19 pandemic into their life experiences to regain their sense of control and direction in life.

Conclusion

The impact of the COVID-19 pandemic extends beyond infected individuals and a high rate of mortality. Widespread lockdown and social distancing measures increased worries about physical health, anger, impulsivity, anxiety, depression, fear, nervousness, and social isolation among the participants (Maalouf et al., 2020). Such unexpected significant adverse events such as the COVID-19 pandemic can threaten personal meaning, a significant source of life satisfaction, personal growth, and healing. Through each of the participants' stories, it became clear that life had not been easy for any of them during this pandemic. However, technology played a critical role in helping participants make meaning of the situation. Our findings highlight the role of meaning as a pathway to survive and thrive during this pandemic aligns with the existential framework (Wong, 2017). We suggest that healthcare professionals encourage their African immigrant patients to talk about their sources of meaning since meaning has significance in how people integrate an unexpected negative event into their life experience to regain a sense of control. Knowing the sources of meaning of African immigrants can help health care practitioners enhance their African immigrants' patients' capacity to respond to opportunities and manage problems in their lives.

Reflected through each of the interviews conducted was the notion of inner strength that many participants derive from connecting with self, others, and the divine. Relationships and religious faith were among the most important sources of meaning in life for the study participants. The majority of the participants believed that a supreme being is in control. Without his permission, the pandemic would not have occurred. For them, God allowed the pandemic to happen for a reason. Most of the participants viewed the pandemic through a religious and spiritual lens. Hence, they relied on their faith and relationship with the divine to protect them from the virus, make sense of, and deal with the pandemic's impact. Conversely, the general population mostly relies on scientific evidence to deal with the COVID-19 pandemic (Nadanovsky and Santos, 2020; Tabary et al., 2020). Our finding is consistent with studies that show that Africans generally fall back to their deep-rooted spiritual practices and values when responding to stressful life events (Conway-Phillips and Janusek, 2016; Kamya, 1997; Watlington and Murphy, 2006). Research also indicates that spirituality is a vital source of strength and resilience for many African immigrants in the United States (Babatunde-Sowole et al., 2016). It provides a framework by which they make meaning of their migration experience and various other life challenges (Gladden, 2012). Hence, it is important that health care practitioners working with this immigrant population care for them through the lens of a positive health perspective instead of the dominant dysfunctional perspective often taken in the health care system. There is also evidence that spirituality provides African immigrants with personal meaning (Ekwonye et al., 2018). Therefore, healthcare professionals should consider discussing meaning in life when caring for their African immigrants' patients.

Additionally, this study highlights the ubiquitous functions of technologies in this 21st century, more so amidst COVID-19 pandemic. Participants in this study were able to engage in their activities of daily living, navigate through meaning-making processes and connect with family, friends and others via emergent technologies. Therefore, it is essential for health care practitioners as well as other professionals to

ascertain various technologies and effectively employ them in care giving and other practices.

While our findings highlighted the importance of knowing the core sources of meaning for African immigrants and how they can be significantly disrupted by an unexpected, negative event like the COVID-19 pandemic, there are some limitations worth mentioning. First, the researchers recruited participants through the snowball sampling method, which is prone to sampling bias. Second, there was an overrepresentation of immigrants from West Africa and no representation from North or Southern Africa. Hence, this study cannot be generalized to immigrants from these two unrepresented regions. It would be interesting to conduct some follow-up research with individuals from other cultural backgrounds to see if there are cultural differences in how the pandemic affected their meaning sources. One area that we did not directly explore was our participants' family dynamics as relating to whether or not they live alone or with family members. Previous studies indicate that family and other social support proved contextual factors by which African immigrants maintain a healthy mental state (Algeria, Alvarez, and DiMarzion 2017). Although there was no direct inquiry into this residential situation, we are unable to provide a specific number of participants living alone or with family and/or friends. However, through their responses, several participants revealed that they live with family members by indicating that such arrangements brought meaning to their lives and made coping with COVID-19 bearable. For instance, a participant stated she is a religious woman and so lives with sisters in her community. Another participant noted that staying at home with family due to movement restrictions provided a better family connection. Additionally, one other participant indicated "the positive aspect of it [quarantine] was, for the first time ever, my family members were all in the house." Although this participant also admitted that such closeness, even though positive, later became a source of conflict and strain.

Continued research is crucial to better understand how traditional and social media help African immigrants make sense of a significant unexpected negative event since meaning is essential to healing and flourishing (Wong, 2017). This understanding may inform the development of interventions that will help modify the cognitive processes that assist individuals in integrating the meaning of negative events into their lives or compensate for the changes brought about by the event (Skaggs and Barron, 2006). This study suggests the need to develop prevention or preparedness activities that can facilitate recovery in the event of a future pandemic or catastrophic event (Park, 2016). In summary, knowing individuals' meaning systems is central to understanding their world views and how they make sense of negative events in their lives, which is critical to their psychological functioning and well-being.

Declaration of Competing Interest

The authors have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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