Communal Relationships and the Spread of Infectious Diseases in Nigeria: A Qualitative Study

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Abstract

Background: Previous studies have examined the effect of communal care in the treatment of non-infectious diseases; however, only a few have investigated how communal relationship variables increase the spread of infectious diseases in sub-Saharan African countries. This study investigated how communal relationships increased the spread of infectious diseases and hindered compliance with socio-medical control measures in Nigeria.

Methods: This study adopted qualitative tools— organized six different Focus Group Discussions (FGDs) (60 discussants) and interviewed 16 participants (IDIs) in 40 communities with the highest number of outbreaks of infectious diseases between 2000 and 2020 in Nigeria.

Results: This study revealed that the spread of this outbreak is due to socio-communal and cohesion roles, common emotions and we-feeling, common residence and shared occupation environments, and a sense of belongingness and group relationships.

Conclusion: Limited success in controlling infectious diseases was possible because of people's perceptions of socio-medical control. There is a need to eliminate health-related myths and reduce extreme communal ties to curb the spread of infectious diseases.

Keywords: Communal relationship, infectious diseases, communal ties, qualitative study, Nigeria

Introduction

The increasing vulnerability to infectious diseases and the surge in epidemiological trends in communal societies in African countries have become major concerns for scholars in various interrelated disciplines (Azetsop et al., 2020; Moyo et al., 2023; Olaleye et al., 2023; Communications, 2024). The high level of morbidity and mortality caused by these infectious diseases in African countries such as Nigeria has been attributed to long social compact and communal relationships during pandemics (Eteng et al., 2022; Saito et al., 2023). These concerns range from the causes of disease transmission to control mechanisms, especially at the socio-medical level, to curb infectious diseases. The incidence of infectious diseases has been steadily increasing across different population groups, whether in urban or rural areas, states or geopolitical zones,

children or adults, and males or females in Nigeria. The persistent resurgence cannot be attributed to a single factor but to the complex interplay of social interactions within communal settings (Badu, 2020; Ellis et al., 2022). Since the outbreak of many infectious diseases (e.g., tuberculosis, Ebola, Lassa fever, flu, Covid-19), the world has significantly shifted to social distancing as a strategy to reduce transmission (AbdulAzeez, 2020; Wang & Wang, 2020; Osayomi et al., 2021; Moso et al., 2024).

Lassa fever outbreaks between February 2019 and February 2022 included 833 confirmed cases and 174 deaths in 2019 and 1,189 confirmed cases and 244 deaths in 2020. In 2012, the disease affected 41 Local Government Areas (LGAs) across 23 states, resulting in 937 cases and 95 deaths. By 2022, it had spread to 27 states, with 689 confirmed cases and 118 deaths (World Health Organization, 2023; Nigeria Centre for Disease Control and Prevention, 2024). In 2021, COVID-19 accounted for 169,678 confirmed cases in Nigeria, equivalent to 82.31 cumulative cases per 100,000 population and a cumulative death rate of 1.03 per 100,000 population (Nigeria Centre for Disease Control and Prevention, 2024). In 2014, the Ebola virus triggered an outbreak in Nigeria that infected 20 individuals and resulted in eight deaths (World Health Organization, 2023). In 2016, about 2.5 million people in Africa were living with tuberculosis, and 417,000 deaths were recorded in Africa. Nigeria has one of the highest tuberculosis burdens in the world (311 per 100,000) and the largest burden in Africa (Centers for Disease Control and Prevention, 2025). Yellow fever re-emerged in Ifelodun Local Government Area (LGA) of Kwara State, Nigeria in September 2017. The number of suspected cases rose to 337, with a case fatality rate of 13.6%. By the end of 2018, yellow fever had been confirmed in four states: Kwara, Kogi, Kano, and Zamfara, with periodic re-emergence reported between 2018 and 2020 (Nigeria Centre for Disease Control, 2020). In 2019, cholera outbreaks resulted in 10,837 suspected cases and 359 deaths, with Lagos and Jigawa states recording the highest number of cases (Olumade et al., 2020; Danbuzu et al., 2022).

Between 2010 and 2022, persistent cholera outbreaks were reported in some states in Northern Nigeria, including Benue, Sokoto, and Jigawa. In 2021, Ogoja town in Cross River State also experienced significant public health challenges, with nearly 31 rural communities affected by both Lassa fever and cholera. Lassa fever cases have been reported in Borno State, Jos and Pankshin (Plateau State), Zonkwa (Kaduna State), and Lafia (Nasarawa State). Notably, the 2011–2012 epidemic is considered one of the worst in Nigeria's history, affecting 41 local government areas across 23 states and resulting in 937 reported cases and 95 deaths (Nigeria Centre for Disease Control and Prevention, 2024). Furthermore, the deaths recorded across all states during the COVID-19 pandemic remain a significant public health incident in Nigeria (Centre for Disease Control

and Prevention, 2020; Nigeria Centre for Disease Control and Prevention, 2021).

In all these outbreaks, the recommended socio-medical strategies to control and prevent the spread have always involved social distancing and limited interactions with affected individuals (AbdulAzeez, 2020; Laborde et al., 2020; Gralinski & Menachery, 2020). Unlike societies that practice social distancing and individualistic relationships, many infectious diseases are widely spread and have a higher impact in communal societies (Camara et al., 2021; Moyo et al., 2023). Several studies have established a significant association between the mental models of Africans about infectious diseases (Stafford, 2020; Communications, 2024) and their beliefs in socio-medical control measures (Baker et al., 2022; Moyo et al., 2023; Olaleye et al., 2023; Zhang et al., 2023). It explores the relationship between their cultural perception and social structures on the one hand (religion, norms) and their perception of medical control measures (Ashton, 2020; Gralinski and Menachery, 2020). However, these studies have failed to capture how communal relationships in Nigeria have increasingly aided the transmission of infectious diseases through social cohesion. Therefore, the main objective of this paper is (1) to examine how communal variables have increased the spread of infectious diseases in Nigeria, and (2) to identify the factors within communal indicators that hinder the socio-medical control of infectious diseases in Nigeria.

Understanding Infectious Diseases and Communal Relationship Theory

Infectious diseases are transmitted when people inhale air contaminated with droplets and airborne particles containing the causative microorganism. Some infectious diseases have been effectively controlled mainly because of people's mental perception, that is, their ability to embrace particular circumstances, which helped them cope better with their physical realities. Laborde et al. (2020) argue that most developing countries are at risk of infectious diseases due to the lack of adequate orthodox healthcare facilities in their immediate environments. They lack the required transportation systems to access urban areas, making it difficult for them to get the healthcare and medical services they need. Moreover, high levels of illiteracy and socio-economic deficiencies worsen the situation (Eteng et al., 2022). Gralinski and Menachery (2020) also highlighted the challenges of unqualified medical personnel and a lack of awareness of the limited health-related programs in their communities.

Previous studies (Riou & Althaus, 2020; Etteng et al., 2022) construe mental models as frameworks through which people from different social classes interpret and make sense of the world around them. Backer et al. (2020) further argue that in contemporary context, mental models are shaped by people's experiences, values, and beliefs. These mental models greatly influence how people store and process information. Specifically, mental models determine

the extent to which people understand the nature, spread, and control of infectious diseases within their environment. These perceptions reflect not only beliefs about infectious diseases but also attitudes towards socio-medical control measures. Finally, the models focus on factors that hinder compliance. Hence, this study conceives of these mental models as leverage that authorities use to implement effective socio-medical control strategies by introducing policies to curb the spread of disease, especially during public health emergencies.

Previous studies (e.g., Ellis et al., 2022; Saito et al., 2023) have examined all forms of cultural norms and values that oppose the social control of infectious diseases, such as tuberculosis, Ebola, and Lassa fever. However, many decision-makers overseeing the geographical coverage of medical interventions remain focused on providing medical treatment for minor ailments. At the same time, the broader impacts of infectious diseases and pandemics are left unattended (Osayomi et al., 2021). Given the social compact, interdependent relationships, and daily economic transactions within communities, many scholars have expressed concerns about how people would analyze the various means of reducing the scourge (Riou & Althaus, 2020; Baker et al., 2022). Some scholars (Onovo et al., 2023; Moso et al., 2024) have argued that communal relationships significantly shape mental perception, enabling people to better understand both the dynamics of disease transmission and the importance of socio-medical control. Developing mental models without direct measurement is not new, and numerous elicitation techniques have been developed across various fields of research, including risk communication (Azetsop et al., 2020; Attema et al., 2021; Gulumbe et al., 2023) and climate change (Aloke et al., 2023). In line with these, this study focuses on how communal relationships increase the spread of infectious diseases in Nigeria.

This study adopted the Communal Relationship Theory (Baker et al., 2022; Onovo et al., 2023), which emphasizes the attributes of communal relations and the social cohesion inherent in a community. This theory was employed to analyze public perceptions and mental models regarding compliance with socio-medical measures to curb infectious diseases. In communal relationships, individuals show concern for one another's welfare without compulsion or selfish motives (Stafford, 2020). This relationship also exists among extended family members who prioritize their relatives' welfare and offer sustained emotional and physical support. Strangers and outsiders also benefit from the compassion that emanates from this kind of relationship because they are accommodated and provided with the assistance they need. In a typical African community, social institutions are rooted in cultural norms and values, and members of these communities are expected to act in accordance with the basic tenets of these structures (Camara et al., 2021). However, Osayomi et al. (2021) argued that people who are persistently in contact with urban life and

Western education tend to deviate from social cohesion and communal values during infectious disease outbreaks in their community.

Methods

Research Design

An exploratory design was adopted to identify how communal relationships increase the transmission of infectious diseases and hinder socio-medical control of infectious diseases in Nigeria. Hence, this study used qualitative tools (focus group discussions and in-depth interviews) for data collection.

The Nigeria Centre for Disease Control and Prevention (2021) was used to identify the types of infectious diseases and the communities affected by chronic outbreaks. Based on this data, infectious diseases such as Lassa fever, Ebola virus, Tuberculosis, Covid-19, and Cholera were purposively selected. In addition, 40 communities with the highest number of infectious disease outbreaks between 2000 and 2020 were selected. Given Nigeria's extensive geographic coverage and diverse communities, the study employed 12 experienced local research assistants. These assistants were skilled in scientific research and research ethics, and fluent in various indigenous languages due to the diverse societies. They also covered a wide geographical area of the study regions. The study was conducted from October 2024 to February 2025.

Sampling Techniques and Size

For data collection, the study used convenience sampling, a simple and cost-effective method for selecting participants. Acknowledging the limitations of this method, especially its challenges with generalization, as discussed by Jackson (2015), the researcher established clear eligibility criteria for participant selection through pre-questioning.

Eligibility Criteria

1. The participant must have lived in one of the selected communities for more than 10 years and a victim of any of the infectious diseases;
2. Must be a relative of someone who had contracted any infectious disease in the past;
3. Must have held, at least, one community leadership role or practiced at least one traditional occupation in the last 10 years in their community.

Only individuals who satisfied all three conditions were included in the study. A Focus Group Discussion (FGD) was held in each of the six geopolitical zones in Nigeria, grouping the 40 communities into their geopolitical zones. Ten discussants who met these criteria were selected from each of the six study areas. Thus, 60 participants were included in this study.

To complement the FGD, 16 in-depth interviewees (IDIs) were selected. Through snowball sampling and referrals, the researcher visited the community's

local joint club and familiarized with the residents. Following an open discussion on the research theme, the victim's family was identified, and other participants were referred. The interviewees included four close relatives of previously infected individuals, four individuals who had been infected themselves, four family compound heads and community leaders, and four community health workers. In addition, secondary data sources such as academic journals, official records, archived documents, and newspapers, were reviewed to provide contextual background and support the primary data.

Ethical Consideration

This study received approval from the Department of Sociology's Research Ethics Committee (approval number 012/24/25) on September 28, 2024, and was conducted in accordance with ethical guidelines. Gaining access to the families or victims of the infectious diseases required establishing trust and interpersonal rapport due to the emotional trauma, psychological trauma and depression associated with their experiences. The confidence of the participants was gained through an explanation of the purpose of the research and they were assured of absolute confidentiality, only then were they convinced to participate.

Variables and Data Analysis

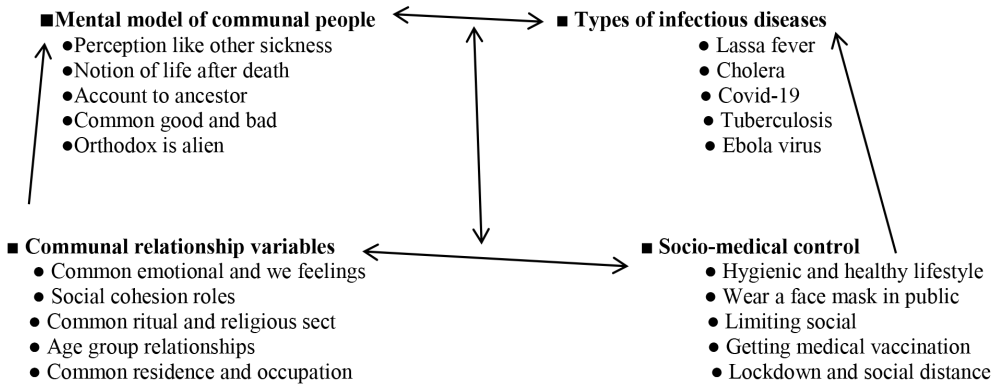
Several components of communal relationships, such as belongingness, friendship, and asymmetrical relational dynamics, were examined to assess how they influenced individuals' compliance with socio-medical control measures for infectious diseases. The integrated elements of social cohesion and communal relationship variables to explore responses to particular FDG data question: "what are the factors among the communal indicators that can spread or increase the transmission of infectious diseases or how could the communal indices hinder an effective control of infectious diseases?" The responses to this question served as the core indices of investigation and were instrumental in identifying which aspects of communal relationships are most likely to facilitate disease transmission.

The study also investigated whether these communal relationship components contribute to the mental constructs that hinder compliance with socio-medical control efforts in Nigeria through conceptual analysis and investigated how variables such as occupational groups, interpersonal relationships, social status and roles, and family housing structures influence behaviors related to disease prevention and control. Due to the sensitivity and potential for cultural stigmatization, consent was obtained from the participants to record and transcribe the interviews and several conversations during the focus group discussion. Extensive responses common among participants were recorded, coded, and interpreted using content analysis to align with the theoretical frameworks.

Communal Relationship and Spread of Infectious Diseases in Nigeria

Figure 1.

Communal Relationship and Control of Infectious Diseases



Source: Authors' Conceptualization

Results

This section presents data on how communal relationship variables increased the spread and hindered the effective control of infectious diseases in Nigeria. The data were conceptually linked to two dimensions: On one side communal relationship variables as established by scholars (Olumade et al., 2020; Moyo et al., 2023) and infectious diseases and the mental models that influenced the level of compliance with socio-medical control measures as enunciated by scholars (Zhang et al., 2023; Olaleye, 2023). Figure 1 illustrates the interrelationships between these variables, with a detailed explanation provided in the subsequent thematic discussions.

Communal Variables that Increase the Spread of Infectious Diseases in Nigeria

Based on the twelve general factors that can spread infectious diseases, as established by AbdulAzeez (2020) and Badu (2020), this study sought to determine how many of these factors are directly associated with communal relationships in Nigeria and other sub-Saharan African countries. Based on recurring responses from participants, the following indicators were selected for investigation:

Socio-communal and Cohesion Roles

Lytle et al. (2020) and Aloke et al. (2023) asserted that in many sub-Saharan African countries, family and community heads serve as custodians of culture, laws, norms and social orders. They often inherit both privileges and burdens on behalf of

their people. Data from the focused group discussion (FGDs) revealed a strong bond between community leaders and their families or local population, a bond that indirectly contributes to the spread of infectious diseases. These leaders play culturally embedded collective leadership roles that extend to all aspects of community life, including the socio-medical responsibilities associated with the demographic characteristics of their people. The findings indicate that the elderly, traditional rulers, community leaders, compound heads, youth leaders, and women leaders were often at the forefront of managing medical responsibilities for their subordinates or subjects. Within family structures, the head of the family, often the eldest, was responsible for the health and well-being of other family members.

One discussant, a relative of an infected victim, corroborated this finding, noting that traditional and other community leaders are culturally obligated to strengthen social relationships within their community. This communal sense of responsibility and care often led them to overlook social distancing protocols during outbreaks of infectious diseases due to their perceived role as custodians of social cohesion in their communities. This finding aligns with Stafford's (2020) assertion that communal relationships are deeply tied to long-standing socio-communal roles held by key community figures in society. To further establish this relationship, several communal variables, such as emotional support and a shared sense of unity (we-feeling, strong family bonds, and long-standing friendship), were identified as significant contributors to the transmission of infectious diseases. Corroborating this finding, a close relative of a previously infected victim said:

> *I lost my junior brother to the Ebola virus. I devoted all my time to give him all the attention he needed, and treated him with both natural and medical medicines. Eventually, I lost him to death, and all the members of our immediate family performed the ritual cleansing by washing him for burial. We gave some final touches to the face and body before the final burial.*

Data from the In-depth interviews revealed that the family heads played a central role in the welfare and health of all the family members, even extending this care to beliefs about afterlife. Most interviewees perceived socio-medical controls as negative steps that conflicted with their traditional communal caregiving approach. These controls were seen as hindrances to the established social and brotherly values. A prevailing mental model among respondents suggested that practices such as lockdown and social distancing disrupted the relationship between leaders and their followers. Traditionally, community leaders are responsible for maintaining care, providing leadership, coordinating community activities, disseminating information, and enforcing social and informal control. As a result, their nonchalant attitude towards modern socio-medical control measures fostered

a collective disregard for such guidelines. This social compact way of life and loyalty to communal living ultimately contributed to the uncontrolled spread of infectious diseases within these communities.

Scholars (Ashton 2020; Danbuzu et al., 2022) have identified extreme social cohesion as a significant challenge to the effective control of infectious diseases. The FGD revealed that in many Nigerian communities, a deeply rooted sense of association and mutual responsibility exists. This stems from the mindset that one is their brother's keeper. This strong communal bond is reflected in shared emotional experiences, a collective "we-feeling," enduring family bonds, traditional mental models, and common religious practices and beliefs. These elements were found to significantly hinder adherence to socio-medial control measures, such as social distancing of at least 1.5 meters, refraining from home visits, or avoiding social gatherings during outbreaks.

Furthermore, the FDGs revealed that the mental perceptions of the people were largely shaped by the superstitions and myths surrounding medical healing. These beliefs often conflict with scientific approaches to disease control. This disconnect was further compounded by the lack of adequate medical personnel during outbreaks, resulting in insufficient awareness campaigns. Additionally, the enforcement of social distancing and other control measures by either formal or informal institutions was largely ineffective, which also weakened compliance.

Common Residence and Occupation

Studies have shown that in most developed societies, houses are typically constructed individually and occupied by nuclear families (Crozier et al., 2022; Ugwu et al., 2024). However, the findings of this study revealed a contrasting pattern in communal communities in Nigeria, where houses are often built jointly by family members and shared by both nuclear and extended family members. In this setting, all family members use the same apartment for shelter and other daily activities. This communal housing arrangement directly contradicts the idea of individual social distancing from other family members, as proposed by scholars (AbdulAzeez, 2020; Osayomi et al., 2021; Moso et al., 2024), which is crucial for controlling the spread of infectious diseases. All the discussants affirmed that strong relationships in communal living arrangements hinder disease control and facilitate rapid transmission of infections.

Several sub-variables related to housing patterns were investigated, including house spacing, cross-ventilation access, number of occupants per house, and room capacity. These factors were assessed concerning their influence on compliance with social distancing, isolation, and quarantine. The results established a high level of non-compliance with these control measures. To further illustrate this finding, one interviewee who is a family head said:

> *My family members are more than 50 and we all live in the same family house built by our fathers, and the place is used as a common living room. All the male children sleep in the same open room, while the female children sleep in the room adjacent to that of the males. We have a bathroom, a dining area, and a kitchen in the entire building, and children of the same sex bathe, dine, and sleep together in a common room. It has been a longstanding communal way of life that was passed down from one generation to the other.*

Generally, most of the interviewees described the joint housing structure as a key form of communal relationship, which they regarded as a normal way of life. This unique housing pattern means that extended families often co-own houses. The strong social cohesion in the community stemmed from the shared lineage of all village members, who viewed themselves as descendants of a common ancestor; as such, they believed they could not be separated by what was referred to as a 'mere' infectious disease. Furthermore, several interviewees emphasized that the community hall serves as a central gathering place where all members, regardless of their health status, meet regularly to discuss issues related to community development. Sub-variables, such as the pattern of family housing, compound or communal living arrangements, the village hall, and the meeting square, were explored in relation to the level of social distancing in interpersonal relationships. One of the interviewees, a youth leader, noted that the public hall was the only place where good discussions were held.

Further analysis identified four sub-variables, repeatedly referenced by the discussants, which contributed to the transmission of infectious diseases and low level of compliance with various socio-medical control measures. These include common communal occupations such as collective family farming, joint hunting, shared trading schemes, and local artisanship. A youth leader corroborated this finding, stating that, especially in rural areas, most occupations are jointly owned and managed by families, irrespective of size, and the members work together on shared family farms. He further explained that it was difficult for community members to strictly comply with socio-medical control measures like social distancing because communal living and joint business practices were deeply ingrained in their way of life, regardless of the health status of any family member. The discussants buttressed this view, noting that each extended family owned ancestral land that was managed collectively under the guidance of the oldest male family member. The elder acted as a custodian and intermediary between the living family members and their ancestors. Cultural norms discourage individuals from working alone on these farms due to strong family bonds, friendship, and mutual trust. Instead, family members irrigate, plow, plant, and harvest together with little consideration for the potential

spread of infectious diseases. In addition to farming, communal labor extended to constructing homesteads, clearing farmlands, building roads, erecting market stalls, and developing town halls. Interviewees confirmed Badu's (2020) assertion that 'no matter how old a man is, he cannot privately own a piece of land or do a job alone' because of strong communal ties. Typically, all family members would go out in the morning to till a family field for the collective benefit of the whole family because of the long-standing tradition of common ownership.

A community leader elaborated on the existence of rotational traditional farming systems similar to modern cooperatives or thrift societies. In this arrangement, members of an age grade group, often numbering no fewer than 80 individuals, work together on each member's farmland in rotation until all cycles are completed. This practice, deeply embedded in rural agricultural life, improves farming production in rural communities. This extends to neighboring communities with friendly ties. According to the leader, even during outbreaks or threats of infectious diseases, this rotational farming tradition remains uninterrupted. The qualitative data revealed that, regardless of the severity of outbreaks or fear of spreading infectious diseases, this rotation never stopped, and many community members expressed deep commitment to these activities, often valuing them above personal health. An interviewee, who was a victim of an infectious disease, affirmed this sentiment, stating:

> *"I grew up working on our inherited family land. Even now, my children, cousins and their grandchildren all jointly work on this same farm which belonged to our forefathers. We cannot stop; it's our way of life"*

Further analysis of the FDG data highlighted the persistence of other communal practices including joint traditional artisanship, apprenticeship system, and age grade based joint hunting expeditions in different communities. An interviewee, a community health worker, reported that age-group-based joint hunting expeditions were regularly organized despite public health warnings during the Ebola virus outbreak. He explained:

> *There are days set aside every month for joint hunting in a nearby forest and reserve land in this community. Likewise, we have a set of age-grades that usually hunt together. Despite public awareness during the Ebola virus outbreak, bats and non-human primates, such as monkeys and apes, were hunted. They hunted, killed these animals together, and ate them with their family members. They had the notion traditionally that these bush meats were sources of protein during their forefathers, too.*

Belongingness and Group Relationships

Many studies have established that no individual is self-sufficient; therefore, they are inherently communal and interdependent (Lytle et al., 2020; Aloke et al., 2023). Similarly, this was echoed in the qualitative data, which showed that strong communal bonds and a sense of belonging significantly influenced behavior during outbreaks. The data from the FGDs suggested that tightly knit social structures, such as kinship ties, communal relationships, and a sense of belonging, influenced the spread of infectious diseases. This strong social bond often leads to non-compliance with socio-medical control measures. The findings showed a long-standing tradition of age-group relationships, kinship, religious congregations, and community engagement. In exploring sub-variables such as social engagement and religious activities, it became clear that these communal activities aided the spread of infectious diseases. Data from the IDIs showed that cultural activities such as monthly dancing competitions, drama nights, funerals, and masquerade festivals increased the spread of infectious diseases.

The qualitative data showed that more than 20 family members within the same age groups ate together, even during outbreaks. The participants revealed that they had not abandoned their communal habit of eating and drinking together. A community leader said that a family member belonged to a group and played some social roles in an age group from birth. This relationship developed into one that enjoyed a strong bond, we-feeling, and trust. In order to buttress this finding, an interviewee, a family member of the victim said that,

> *I cannot imagine a socio-medical measure that will cause me to distance myself from my cousin, who is suffering from cholera, when he needs my attention the most. I cannot imagine what I will tell my forefathers, who taught us to live in common bonds and we-feeling during our lifetime.*

Discussion

Contemporary medical sociologists emphasize that non-infectious diseases tend to be minimally spread and easy to control in sub-Saharan African countries because of communal care and concern for the treatment of victims (Laborde et al., 2020; Onovo et al., 2023; Moore et al., 2024). However, extreme communal relationship variables trigger the spread of infectious diseases. As different infectious diseases and pandemics persist and more empirical data emerge, it becomes evident that the intricate networks of communal relationships in many communities hinder effective adaptation to specific socio-medical control measures. However, the effects of communal relationships and social cohesion variables, such as common emotional feelings, collective identity, strong family bonds, common religious affiliations, and age group relationships, on the spread of infectious diseases is a gap that has not yet been explored. The available literature on

communal relationships and the spread of infectious diseases is limited, especially in sub-Saharan African countries. Some studies have shown that communal features, such as social cohesion, may help to improve common and non-infectious diseases (Ashton, 2020; Eteng et al., 2022); however, very few studies have highlighted how the features of communal relationships can increase the spread of infectious diseases.

Through multiple data collection methods and a triangulation of sampling techniques, this study focused on 40 communities that experienced infectious disease outbreaks between 2000 and 2020, as recorded by the Nigeria Centre for Disease Control and Prevention (2024). This study focused on communal relationship factors that may contribute to the spread of infectious diseases in Nigeria. Specifically, it assessed community members' mental perceptions to evaluate their compliance with socio-medical disease-control measures.

The analysis was structured around two different layers of description: first, identifying and analyzing communal relationship variables associated with disease spread, and second, examining the link between these variables, mental perception, and compliance with socio-medical interventions. The findings revealed that older people, traditional communities, and family heads were prone to ignoring socio-medical control measures during the outbreaks of infectious diseases because of the long-standing communal and social cohesion roles assigned to them by tradition.

Building on the twelve (12) factors established by previous studies (AbdulAzeez, 2020; Badu, 2020; Olumade et al., 2020; Gulumbe et al., 2023; Zhang et al., 2023; Olaleye et al., 2023) as factors that can lead to non-compliance with socio-medical control globally, this study assessed which of these factors could increase the spread of these infectious diseases or hinder compliance with the socio-medical control measures in sub-Saharan African countries, particularly Nigeria, and how each factor increased the spread of these diseases. The analysis focused on variables, including socio-communal and cohesion roles, common residence and occupation, belongingness, and group relationships.

Therefore, this study linked these components of communal relationships to various forms of socio-medical measures, such as hygienic and healthy lifestyles, wearing face masks in public, limited social interactions, medical vaccination, lockdown, and social distancing. The findings revealed that negative mental perceptions rooted in communal relationship structures often undermined compliance with health measures. The study found a strong relationship between disease transmission and perceptions shaped by beliefs in life after death, ancestral accountability, collective moral frameworks, and the rejection of biomedical interventions as foreign or illegitimate. Furthermore, the study concluded that strong communal relationship indices, such as socio-communal roles, common communal

residence, patterns of communal residence, belongingness, and group relationships, contributed to the high level of non-compliance with socio-medical measures of infectious disease control in Nigeria.

Conclusion

In many sub-Saharan African countries, modern socio-medical measures to curb different types of infectious diseases are always a herculean task to implement because of the high level of social compact and communal relationships. Although social cohesion and strong communal ties have significantly assisted in achieving progress in curing non-infectious diseases, the findings of this study suggest that they also facilitate the spread of infectious diseases. The outbreak of infectious diseases and their unsuccessful control are due to socio-communal and cohesion roles, common residence and occupation, belongingness, and group relationships. Transmission of infectious diseases was possible in communal communities due to negative mental perceptions of the diseases and recommended control measures. This study concludes that long-standing communal relationships and common feelings contribute to the spread of infectious diseases and the low effectiveness of control strategies in Nigeria. There is a need for effective information dissemination to eliminate health-related myths and misconstrued perceptions of communal indicators in the context of infectious disease control.

Limitations of the Study

The study method was limited to a qualitative approach, focusing only on communal indicators of infectious diseases in terms of increasing the spread and limiting the control. Future research should examine other socioeconomic indices and their influence on treatment and the spread of infectious diseases. Although this study provides a foundation for further research on communal relationship dynamics in Nigeria and other similar cultural settings, there is a need to expand knowledge through the use of secondary data sources and a quantitative approach.

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