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# Characterization of food insecurity among the forced migrants in northern Nigeria

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## Abstract

Food insecurity affects many people worldwide. More than one billion people in Sub-Saharan Africa are food insecure. About 35% of this population, representing 346 million, are food insecure because of conflicts and political unrest. About 1.6 million people forced to migrate from northern to Central Nigeria in 2018 alone are food insecure. Food insecurity reduces people's choice, power, and opportunity to access and control their food practices. Forced migrants have difficult circumstances, including physical restrictions on food access, and cultural and financial means during the migration. However, there is little knowledge of how the forced migrants engaged and managed their food practices throughout their migration period, making the form of food insecurity they experienced poorly understood. This calls for an investigation to increase food security for forced migrants. This article draws on the investigation from an in-depth Narrative interview involving 25 people who had experienced forced migration in northern Nigeria to address this gap. Unstructured interviews were, used for data collection to allow a wide range of responses. Their responses were audio recorded and subsequently transcribed and written in English. The contextual data that resulted from transcriptions of the audio data were subjected to computer-assisted qualitative data analysis software (CAQDAS) and the data was analyzed. The study's objectives are to find out the forms of food security/insecurity experienced by the forced migrants, their experiences, and the nature of the migration. The finding revealed that violent conflicts caused by terrorists, Fulani herders, religious bigots, and communal disagreement caused forced migration in the region and resulted in short-term, intermittent, and long-term food insecurity. Short-term food insecurity was more devastating for the migrants than intermittent and long-term food insecurity.

**Keywords:** Violent conflicts; Forced-migrants; Food insecurity; Food practices; Trajectory

## 1. Introduction

Food insecurity affects many people worldwide [1; 2; 3]. Over one billion people estimated to be in Sub-Saharan Africa are food insecure. About 35% of this population, representing 346 million, are food insecure because of violent conflicts and political unrest [4; 5; 6]. About 1.6 million people forced to migrate from northern to Central Nigeria in 2018 alone are food insecure [4]. The food insecurity situation added to the refugee crisis experienced in the region between 2010 and 2017 [4]. Food insecurity is severe among poor individuals and households forced to migrate [7]. Armed and violent conflict causes forced migration [8; 9; 10]. Political unrest and violent conflicts have caused more food insecurity in developing countries than low GDP [11; 7]. Food insecurity reduces people's choice, power, and opportunity to access and control their food practices [12; 13; 14; 15].

Conflicts-induced migrants have difficult circumstances, including physical restrictions on food access, difficulty in food preparation, socio-cultural norms, and poor finances during migration [17; 18]. Most research conducted on the forms of food insecurity focused on children, adolescents, adults, and aged populations and some are gender-focused. However, there is little investigation conducted on the forms or characteristics of food insecurity among forced migrants

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[19; 20; 21& 22]. This creates a poor understanding of the forms or characteristics of food insecurity experienced by forced migrants while on a migration trajectory. This article, therefore, unpacks this gap to increase food security and quality of life of the migrants while on the forced migration trajectory. The adversities of sudden changes in regions' socio-cultural norms, and daily routines due to violent crises may cause forced migrants to experience emotional distress and depression [23]. This may increase or shape the form of food insecurity experiences [24; 25].

A dominant theme in the migration literature is associated with economic gain as the reason for migrating from economically poor areas to a more stable economic region [26; 27; 28; 29]. This is summed into economic push and pull factors, with the benefits flowing back to the migrant's place of origin in the form of remittances, which could be money (economic) or knowledge gain (non-economic) [30]. However, migration due to violent conflicts is not economically motivated but a forced push [31; 32]. Armed and violent conflicts are potential causes of forced migration, which may not be for changing the economic status of the forced migrants but for safety and avoidance of threats to their lives. There are possibilities for forced migrants to migrate multiple times due to threats to their lives and socio-cultural reasons [33; 34].

In conflict-induced or forced migration, decisions to run into safety during violent conflicts are, not based on any established social network of families, friends, acquaintances, or agents to regulate their movement. Indeed, violent conflicts destroy existing social networks and any associated social capital leading to social network failure [35; 36]. This is at variance with economic-induced migration, where social networks of families, friends, acquaintances, and agents are known to regulate the relationships between individuals and the community that shape the political and economic context within which migration decisions are made [36; 37; 38; 39].

Violent conflict is a situation that indicates a violent clash of interest between two individuals or a group of people or could even be between states or countries that live as neighbors over time but suddenly have divided views or conflicts of interest resulting in violent conflicts [36; 40; 41]. Violent conflicts lead to the destruction of properties and loss of life, forced migration, food insecurity, and hunger [42]. There has been an increased incidence of violent conflicts in Nigeria for the past two decades leading to forced migration [43; 44]. Since 1999, the country has experienced more than two hundred violent conflicts in different regions resulting in waves of forced migrations that extend to the present day [43;44]. The violent clashes revolve around three topically based issues, which are religious crises caused by terrorists (Boko Haram), Farmer and Herder clashes, ethnic and communal clashes over land, and right to the traditional stool [45; 46; 47; 48].

During violent conflicts, people's livelihoods are partially or destroyed, resulting in multiple displacements and poor access to food [49;50; 20; 51]. It also results in food insecurity and disruptions of their food practices [34; 52]. The activities of Boko Haram insurgence, a religious terrorist group that forbids Western education, resulted in an armed struggle with the Fulani herders in the northeast. Northeast Nigeria was originally home to thousands of Fulani herders who were pastoralists. The armed struggle forced the herders to move toward the north-central region, which they considered an alternative region to graze their animals [53]. The herders' armed struggle experience with Boko haram, prepared them to fight against any farmers that may want to resist their movement over their farmlands while migrating to the north-central region. On arrival in the central region of Nigeria, the herders tried to push the sedentary farmers away to take over their farmlands [40]. This resulted in violent conflicts between the farmers and the herders, causing the forced migration of unarmed farmers to other regions for alternative sources of livelihood [54]. Farmers in Benue, Plateau, Kaduna, Nasarawa, Kogi, Niger, and Taraba States were, more affected.

In another scenario, right at the heart of the country is Plateau state, where a series of religious clashes occurred. According to Human Rights Watch [55], initially, the clashes are, considered as localized quarrels between the indigene and settlers in the area. Most indigenous people are Christians, while the immigrants are predominantly Muslims from the northern parts of the country. The two groups' struggle for resources and political positions later escalated and took a religious dimension. This led to widespread violent conflicts that have lasted since 2001 to date. [55]

Experiences of violent conflicts have resulted in forced migration in the Northern region of Nigeria to date. The crisis has continued, and people are still migrating from one area to another in Northern Nigeria. Recently, an armed group called "Bandits" has caused more forced migration in the northwest States of Sokoto, Zamfara, Katsina, and Kebbi. There is a poor understanding of how food insecurity may or may not extend beyond the point of their initial movement**.** The characteristics and forms of food insecurity they experienced are, poorly understood. A good understanding of the forms and characteristics of food insecurity they experienced during forced migration may help formulate policies that will enhance their food security. This may also give insight into managing the refugee food crisis, which has defied most proffer solutions worldwide [56].

## 2. Methods

An in-depth Narrative interview involving twenty-five (25) people who experience forced migration was carried out for an in-depth understanding of the forms and characteristics of food insecurity among forced migrants. The interview was, conducted after the participant's consent was sought and obtained. Interviewing the twenty-five people who experienced forced migration ensures the quality, exactitude, and integrity of the data collected. It helps unpack the experiences of the people concerning the issues under investigation [57]. Men and women were recruited because both genders were affected. Both genders assumed the responsibilities of providing for the household members on the migration trajectory after losing either their husbands or wives to crisis or separation. Participants who are 25 years and above were, recruited because the investigation covers 20 years, and people below the age of 20 years may not have witnessed or experienced the consequences of forced migration. However, those who were at least five years old when their parents migrated may not have forgotten the memory of all that happened while migrating. Although such participants may not remember the exact facts of what happened to their family when they decided to migrate, they will undoubtedly remember the subsequent experiences as they mature on the migration trajectory.

Unstructured interviews were, adopted for data collection. This allows for a wide range of responses from the people. The interview focused on their relevant socio-demographic information and their experiences with food insecurity while on the migration trajectory. Their responses were audio recorded and subsequently transcribed and written in English. The names of the participants were, anonymized after transcription with random names to protect the identity of the participants as opined by [58]. The contextual data that resulted from transcriptions of the audio data was subjected to computer-assisted qualitative data analysis software (CAQDAS). Using CAQDAS made recognizing trends in data and grouping extensive data more accessible and quicker [59; 58; 60]. This facilitated easy organization and management of data [59; 61; 62]. The data were analyzed and the result was discussed as follows.

## 3. Results and discussion

The study revealed that the participants engaged in various economic activities that made them food secure before the violent crisis. Most participants engaged in farming, fishing, cattle rearing, transportation business, artisans, craft men, and women; others were civil servants [63; 64]. Before the crisis, most participants who were farmers had direct access to their farm produce, which provided them with food and made them food secure [40]. Others earn good money from the sales of their products, which they use to provide food for their families. Their belief in a communal life system to assist one another strengthens their social relationships and interdependency to improve their food-productive capacity just like [65] suggested. This helps to strengthen their food security [66; 67; 68]. However, the situation changed after the violent conflicts that made them flee their ancestral home, leaving their livelihood behind for unknown destinations, and therefore become food insecure just as opined by [49; 50; 20; 51].

Forced migrants experience three forms of food insecurity; these are short-term food insecurity, intermittent food insecurity, and long-term food insecurity. Violent crises, post-crisis stressors, loss of livelihood sources, multiple migrations, social disorientation, and general despair resulted in these forms of food insecurity. This is similar to [69; 70; 71; 72].

The investigation revealed that the crisis and post-crisis stressors such as emotional distress caused the issue of distrust, loss of social capital, and inability to put cultural and human capital to work to access food. This is similar to [73; 74; 75]. Other factors are multiple migrations across different regions and cultural divides.

### 3.1. Short-term food insecurity

During the crisis, people hide to avoid being hurt or killed. Therefore, food storeowners and food vendors closed their shops due to panic, despair, and fear of being, attacked as the crisis raged in the town. In addition, terrorists and arsonists hunt for people to kill and block the movement of vehicles and people into and out of the town. This made it difficult for people to bring food into the town for fear of being killed [51; 76]. All private and commercial activities are halted. The participants who were exceptionally food secure before the violent crisis became food insecure after the crisis, leading them to experience hunger, starvation, and food insecurity. The condition of not being able to access food temporarily creates short-term food insecurity in the city. This occurs during and immediately after the violent conflicts when people are prevented from accessing food sources such as food stores and food outlets. In addition, food is prevented from entering the crisis town. There was no market where food could be sold or bought during the crisis. This means that all sources of food are blocked, making the participants go through severe hunger, starvation, and food insecurity. Though short-term food insecurity may not have lasted for an extended period, it proves more chronic and, in some cases, fatal. Some participants lost their children and loved ones to hunger and their inability to secure food

resulting in poor health conditions. This may have accounted for the large number of deaths and significant incidents of ailment recorded during their migration period (See Table 2). However, short-term food insecurity extended beyond the town where the migrants fled. Although some participants managed to escape through a secret footpath using the green cover during the day, and others fled during the night, they had a tough time accessing food while on the run. Most depended on wild fruits, edible insects such as grasshoppers, rodents, and date palms to survive. Others stole from people's farms. They, therefore, experienced food insecurity for the period they walked along the bush footpath. While escaping the crisis, some participants lost family members to hunger and poor healthcare. Most participants who ran away on an empty stomach for days to avoid the horror and hardships accompanying the crisis became weak, sickly, and more susceptible to diseases and ailments. The remarks of some participants reveal their ordeals, see their remarks below;

- **Adijat** said, "After my husband ran away and my store burnt down, we could not access food. I was afraid to run out of the town on foot because we heard that terrorists had killed people attempting to escape the town. It took us some days before I could escape with my children. We walked through the bush footpaths for about four days before we got to where we could be helped. Before we fled the town, there was no food anywhere. You cannot get food to buy in the city even if you have money because most of the food stores have been burnt.
- **Umar** remarked, "After our house was burnt down, a good Christian fellow hid us in his house for about two weeks. For the two weeks, there was no access to many things, including food; therefore, we experienced hunger. All activities were shut down in the town entirely. Nothing moves in and out of the town for weeks except those living on the town's outskirts. There was no food anywhere for anybody in the town. The worst was that people could not go out for fear of being attacked; therefore, there was no market where people could go and buy things.
- **Cosmas** "During the crisis they burnt down our house. We hid in our neighbor's house for about four days; because if they knew we were there, they would come and kill us. There was, no food for us to eat. For a good four days, we did not eat anything except water until we were able to escape to Farin-Lamba in the night and finally move to Abuja.
- **Fatima** "My husband was not at home when the situation escalated and everybody started running away from the town, I then managed to carry my three children and ran through the bush path to the next town. While going through the bush path, we had no access to food, and we walked for five days without food. My children became weak and could not walk again until I moved around in the bush to get wild fruits for them. I thought I was going to lose them to hunger.
- **Mustapha** during the crisis when the terrorists started beating and killing the people in the town. We climbed and stayed on the mountain beside the town for about one week without food to eat. I thought we were going to die. There was no food for us to eat and no clean water to drink. The situation continues for more than two weeks before we can get to the next town.

The investigation revealed that the participants experienced short-term food insecurity due to the destructive tendencies and acts of terrorism arising from the crisis. People's livelihood sources were destroyed, and all economic activities were paralyzed; this essentially prevented people from accessing food, and they were subjected to chronic food insecurity. Although this might not have lasted for several months, the effects of the short-term food insecurity were gravy for the participants as some lost their loved ones to hunger, and some escaped with severe health consequences (see Table 2). However, their experiences vary from participant to participant. Some participants got little crude food as they walked through the bush path. These categories of participants stole from other people's farms, plucked wild fruits and date palms, and hunted edible insects popularly known as "para" in the local dialect. While some participants had no food and therefore did not eat anything for several days, they walked to escape. The situation was probably worse for those who could not escape during the crisis and had to hide in their houses without food for weeks. They probably went into hiding and could not come out for several weeks because of the killings and maiming happening around them, with no chance of surviving if they dared come out. Even though some participants have money, as stated in Adijat's remarks that could help them buy food. They starved because they would be killed if they came out. Food also stopped coming into the town because of the blockage of the major entrances by terrorists. However, the few participants who had food at home before the crisis exhausted all within a few days of staying indoors.

### 3.2. Intermittent food insecurity

Multiple migrations, hunger, food scarcity, and food insecurity often characterize forced migration, as the participants run or relocate to safety [33; 34]. The participants cross different regions and cultures while migrating. The differences in the physical environment and Cultural practices may reflect the kinds of food that will be available. This creates food insecurity for participants who find themselves in unfamiliar cultural practices. Multiple migrations among the forced migrants are encouraged further by threats to the migrants in their new location. This investigation reveals that such threats are from the terrorists and Fulani herdsmen who continue to trail participants just to get them killed. The

participants tend to relocate again once they perceive any threat to their lives. This is usually when they begin settling down and becoming acquainted with the culture, region, and food-sourcing methods. They, therefore, abandon all the efforts made so far to guarantee their food security and move to another region with different cultural practices. This condition results in intermittent food insecurity for the participants. Intermittent food insecurity is, therefore, discussed under two sub-headings: multiple migrations due to the threat of further violent crises in their new location, and changes in regional differences and cultural practices.

### 3.3. Multiple migration

This investigation reveals that the migrants experienced multiple migrations to help them overcome their challenges, such as a threat to their lives, emotional distress, and more access to food, just as opined by [77; 78; and 79]. Engaging in multiple migrations helps to cope with emotional distress, despair, and depression. It is believe that when the participants move away from the traumatic environment to a new destination, a different region and culture will help them ease off emotionally distressful feelings. Moving away from the environment that caused the situation implies moving away from a traumatic situation [71; 80]. Although multiple migrations increase their intermittent food insecurity, especially after an appreciable effort has been made to settle down in a new environment and suddenly, they have to move again.

The difficulty in accessing all the help they need as thought before fleeing to new places or destinations increases the chances of migrating multiple times. The expected help includes food access, good healthcare, availability of jobs, and acquisition of skills [9; 10; 34]. This help is sometimes unavailable for the migrants and may further be threatened by fresh crises in their new destination. This happens just as they gradually settle down and devise ways to access food. The gradual settling down includes developing new skills or getting new jobs to help them access food. Once they discover any threat to their lives in the process, they relocate immediately and leave whatever they started. The inability of the participants to settle down in a new destination for a long time due to threats, fears, and despair from the terror groups makes them more vulnerable to food insecurity. This, therefore, causes fluctuations in their access to food and results in intermittent food insecurity. The current investigation reveals that all the participants migrated multiple times. See Table 1.

**Table 1** The multiple destinations of the migrants

| Part | 1st destination | 2nd destination | 3rd destination | 4th destination | 5th destination | Total |
|---|---|---|---|---|---|---|
| Golla | Jos | Abuja | | | | 3 |
| Hadiza | Askira uba | Mubi | Cameroun | Jameta | Abuja | 5 |
| Liyatu | Jos | Mararaban jamaa | Lafia | Abuja | | 4 |
| Idris | Maiduguri | Jos | Abuja | | | 3 |
| Jennifer | Jos | Yola | Abuja | | | 3 |
| mustapha | Jos | Mountain | Maiduguri | Abuja | | 4 |
| Aminu | Katsina | Jos | Abuja | | | 3 |
| katum | Maiduguri | Jos | Abuja | | | 3 |
| Shefiyat | Jos | Gidan waya | Jere | Abuja | | 4 |
| Audu | Maiduguri | Jos | Abuja | | | 3 |
| Ayishetu | Jos | Madagali | Yola | Abuja | | 4 |
| Hajji | Jos | Manchok | Abuja | | | 3 |
| Fatima | Lamingo-jos | Angwa-rogo jos | Abuja | | | 4 |
| Hauwa | Angwa-rukuba jos | Angwa-rogo jos | Abuja | | | 4 |
| Jabir | Jos | Mangu | Karu-nasarawa | Abuja | | 4 |
| D. Fatima | Gwoza | Madagali | Jos | Abuja | | 4 |
| Omuya | Jos | Lokoja | Okene | | | 3 |

| | | | | | | |
|---|---|---|---|---|---|---|
| adijat | Jere in borno | Kaduna | Abuja | | | 3 |
| Mariam | Jos | Gwoza | Madagali | Abuja | | 4 |
| Falimatu | Gwoza | Gulak | Madagali | Abuja | | 4 |
| Abubakar | Abbatoir-Jos | Angwa-rogo Jos | Abuja | | | 3 |
| Ogbonna | Jos | Abuja | | | | 2 |
| Cosmas | Jos | Farinlamba | Abuja | | | 3 |
| fatimah | Gwoza | Madagali | Gombe | Maiduguri | Abuja | 5 |
| Umar | Jos | Abuja | | | | 2 |

The remarks of Jabir, Mariam, Hadiza, Falimatu, and Katum, as shown below, support this assertion.

- **Jabir remarked**, "After losing my workshop and working tools during Jos's first and second crises. My wife and I returned to the village to start farming on our family land. The Fulani herders brought their crisis just as the situation improved for us in the village. Several people were killed when the herders invaded our village, and my wife had a miscarriage due to fear, panic, and stress. Again, we had to run away from the town to the next town, Mangu, where we stayed for about six months. While in that town, I got involved in sand mining from a stream to enable me to feed my family until I nearly drowned one day. For fear of losing my life in the river, I stopped sand mining and relocated to Karu, a suburb of Abuja. Moreover, each time we moved from one place to another, we experienced food shortages, poor health care, hunger, and starvation."

The remarks of Jabir show that he lost his human and cultural capital and, by extension, economic capital after the first crisis. The loss of his workshop and working tools made him unable to use his skills to work and get money to meet the family's needs, which included food. This situation created hardships for him and his family and made him food insecure. Therefore, he relocated to another town to start a different trade to feed the family. As he was settling down, getting used to the new work, and hoping to access food, the Fulani herders brought another crisis to the town. During the problem, he lost his farm and his wife's pregnancy through miscarriage. This created physical and emotional hardship for the family and made him food insecure. They relocated to another town, where he got involved in sand mining to ensure the family's access to food. He later escaped drowning in the river during one of the mining sections and again lost the opportunity to access food, making him and his family food insecure. This prompted them to relocate to Karu near Abuja. He kept relocating and readjusting to the situation in every new destination. And this kept subjecting him to intermittent food insecurity.

- **Mariam** said**,** "After my husband died in Jos during a violent crisis, I relocated with my children back to Borno state and stayed with the rest of our extended family members. I stayed for about four years in Borno State. I traded on fish around the Lake Chad area. The business was good because I could care for my children very well. After some time, Boko haram insurgence started in that axis, and I stopped the trade consequently, we experienced hunger and starvation. I decided to do other menial jobs to provide food for my children, and then the insurgents spread to our town, and they started killing people. We had to run from the town to the next town on foot for about two weeks in the bush. After one month, we were told that Boko haram members were also planning to attack the town. Therefore, we had to relocate again to another town called Mubi. We stayed in Mubi for about three months before we were advised to relocate again that there might likely be another crisis in the town soon. I then decided to come to Abuja".
- **Hadiza** "We went through bushes and climbed several hills before we got to the next village. We spent twenty-four days (24) days in the bush, we had to endure it all because aside from killing in the town the terrorist was also raping young girls and I had five (5) grown-up girls that could be raped. When we finally got to the village, we decided to walk to Askira Uba, and finally to Mubi in Adamawa State. It was a difficult journey for me because I was pregnant at the time. Some organizations came to help us at Mubi with some items; they brought mats, mosquito nets, food, soap, buckets, and drugs to us. They also gave us some drugs. After a while, another crisis started again, and we had to run to the Nigeria- Cameroun border for safety. We later ran to Jemeta in Adamawa state, and finally, we came to Yola, the Adamawa State capital. We stayed there for some days, and then the Government brought some buses to carry people to wherever they wanted to go. It was then I decided to go to Abuja and stay with my late Husband's brother.
- **Fatimabuba** remarked, "We stayed in Madagali after migrating from Gwoza for about two weeks, and the terrorists still trail us down to the place. My husband and I, therefore, agreed that I should go to Gombe State

with the children and stay with his brother while he (my husband) went to Abuja to find a job to do in the meantime. I, therefore, went to Gombe while he traveled to Abuja. I was in Gombe for about one year and two months. When my brother-in-law could no longer cope with our feeding and his own family, we went to Maiduguri IDP camp. The Borno state government provided food and security for the people in the IDP camp. We stayed there for about three years before we joined my husband in Abuja. Fears, panic, hunger, poor access to food, and poor healthcare characterized our migration. We reunited with my husband finally in Abuja.

- **Katum** said, "We originally migrated from Borno state to Jos plateau when the terrorist attack became overwhelming in my hometown. The terrorists called Boko haram were killing people at will. We then migrated to Jos in Plateau state for safety. We lived in Jos for several years until another religious crisis in Jos City. We were lucky to escape to Abuja unhurt, although we lost all we had. We relocated to Abuja because we could not return to Maiduguri, where we initially migrated. This is because the issue of Boko haram has worsened than before our initial migration. When you wake up in the morning, you see dead bodies everywhere, and you are not sure what will happen to you and your family the next moment. We, therefore, decided not to go back to Maiduguri but to run from Jos to Abuja.

The participant's remarks suggested they migrated from one town to another for safety, food access and to avoid the emotional distress they undergo daily by seeing dead bodies around them. This, therefore, suggested that their primary reason for multiple migrations was their safety, food insecurity, and avoiding the emotional distress of seeing dead bodies around them all the time.

This experience tends to limit the capacity of their social capital and networks that help to enhance their food access before the crisis. Their current situation makes their food access inconsistent and uncertain. This, therefore, creates a problem where they have food at one time and do not have it at another time. The situation results in intermittent food insecurity for them. When this situation persists for a long time, the participants keep experiencing on-and-off food insecurity, causing intermittent food insecurity.

### 3.4. Cultural differences

The participants experienced changes in culture, food practices, and general ways of life as they migrated from one region to another. It is often difficult for migrants to adjust to alternative food practices without their culturally preferred food [81; 82; 83]. There are significant changes in the food available to them in every new place they arrive. These changes are linked to the differences in their culture and their physical environment [83; 84]. Moving from one geographical region to another means experiencing different weather attributes, such as rainfall, temperature, cloud cover, sunshine, wind movements, and Language and ways of communication, which could affect migrants' access to food [85; 86]. This is probably because the migrants may not be able to communicate effectively with the people in the host community to know the names and kinds of food found in their new place. They may be unable to even ask for what they want in terms of the type and quantities of the food they want at a given time. This could subject the migrants to a lack of food [87; 88]. Aside from the cultural factors, the environment may influence the available food and, therefore, may determine the migrant's choices in the new place [83; 84]. The migrants, therefore, need to adjust and adapt to the socio-cultural norms of their new destination. These adjustments must be immediate to their food practices to ensure food security. These adjustments and adaptations are necessary because they have crossed different cultures and geographical regions and, therefore, must survive in their new locality. Changes in cultural features such as language, food production systems, cultural festivals, cooking procedures, and food taboos are known to influence migrant's food access [89; 90; 91]. Therefore, cultural, and environmental differences caused by forced movement from one region to another created food insecurity for the migrants. The remarks of some of the participants reveal how the changes in their culture and food practices created food insecurity for them. See the remarks of Abubakar, Audu Shefiyat and Falimatu.

- **Abubakar** said, "The differences in our food practices affected our access to food when we arrived in Abuja; the foods are unavailable in the form we know and eat. We have to either add something or remove certain parts of the food before we can eat. This made us either add extra money for the addition of certain items or remove certain parts of the food. Hence, it constitutes a restriction on our access to such food. Generally, the cost of food in our new environment made it more inaccessible for us. One can only access food when you have money to buy it and remain hungry when one does not have money to buy it."
- **Audu** said, "The differences in the culture of my host community and mine are pretty much, which created a food bottleneck for me. Though we are from the same geographical region, we speak different languages, and our norms, customs, and social lives differ in many aspects. In my place, for instance, we celebrate New Yam Festival and other food festivals. During these festivals, people who cannot feed their families are provided enough food that may last them for a long time. Yam is cooked, and people from all other communities are invited to participate in the celebration. This is done regularly to help people who do not have enough food to

feed their families. Tubers of yam are sent to people in neighboring towns. These practices are absent here in this community, making many people unable to access food".

- **Falimatu** remarked, "We went through four different cultures, and none was precisely like ours; Our languages are not the same; their dress is quite different from ours. Their farming system and the cultivated crops are different from ours. Their ways of preparing and eating food are not the same as ours. All these differences were apparent and seen each time we moved to a new community as we progressed on the migration trajectory. This situation limits our access to food in most places. Some food that would have been cheaper in some areas along the line is forbidden for consumption, depriving us of cheap food we could have purchased and had something to eat.
- **Shefiyat** said, **"**There are significant differences between our culture and the culture of our host community. There are differences in the type of food we eat and how they are prepared before being eaten. We do not know how to eat some of their food; for instance, we cook and eat "Gwote," a local delicacy made from "Acha" in our place, but in our current location, it is prepared with maize and spinach. So many kinds of food are prepared differently in our current location from how we prepare them and what is used to prepare them in my place. These made us not eat their food on arrival, limiting the kinds and quantities of food we could buy and consume. Sometimes, my children are given food while at the camp but do not know how to eat them, yet they are hungry. The food is also costly, making it more difficult to access. The prices of food items in Abuja are so high that the poor and less privileged hardly have the money to buy them. When we have money for food, we will have something to eat, but when we do not have, we have to go hungry".

The migrants' remarks reveal that significant differences in their culture created lots of differences in their food and the food found in the host community. These differences range from the ingredients used to prepare the food up to consumption, creating food insecurity for the migrants. The differences in the ingredients may have resulted from regional differences. For instance, where a specific region favors the production of Acha (a special kind of cereal) for making Gwote (a special delicacy), it makes Acha an integral part of that cultural food practice. Therefore, the movement of the people away from such regions limits their access to Acha, which is used for making Gwote. This limits their access to food and ultimately makes them food insecure, especially food made from Acha.

**Table 2** The nature of the live events of the forced migrants

| Participants | Birth | Death | Divorce/ Separation | Major Ailments | Acquired Skills | New Marriage |
|---|---|---|---|---|---|---|
| Golla | - | - | 1 | 3 | 1 | |
| Hadisa | 1 | 1 | 1 | - | 3 | |
| Liyatu | - | 3 | - | 2 | 3 | |
| Idris | - | 5 | - | - | - | - |
| Jenifer | - | 1 | - | 3 | 3 | - |
| Mustapha | - | - | - | - | - | 1 |
| Aminu | 1 | 1 | 2 | - | 2 | - |
| Katum | 1 | - | 2 | 3 | 2 | |
| Shefiya | - | 2 | 1 | 3 | - | - |
| Audu | - | - | 1 | - | 2 | - |
| Ayishetu | 2 | - | - | - | 3 | - |
| Hajji | - | 2 | - | 3 | - | 1 |
| Fatma | - | - | - | 4 | - | - |
| Hauwa | 2 | - | - | 1 | - | - |
| Jabir | 4 | - | - | 3 | - | - |
| D. Fatima | 2 | - | - | 2 | | |
| Omuya | - | - | 1 | 3 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Adijat | - | 6 | 3 | 3 | - | - |
| Mariam | - | 2 | - | 4 | 3 | |
| Falimatu | - | - | 1 | - | 2 | - |
| Abubakar | 2 | - | 1 | 2 | 2 | 1 |
| Ogbonna | - | - | 1 | - | - | - |
| Cosmas | - | 1 | 1 | 4 | 3 | - |
| Fatimah | 4 | - | 1 | 5 | | |
| Umar | - | - | - | - | - | |
| TOTAL | 19 | 24 | 17 | 48 | 27 | 3 |

### 3.5. Long-term food insecurity

Diverse cultures, views, ideas, religions, ethnicities, races, and communal interests brewed hatred among the people in the northern part of the country, resulting in a violent crisis. Maiming and killing are common among people during a violent crisis [92; 93]. People who witness the killing or death of their family members in a gruesome manner experience emotional distress for a long time [70; 71; 94]. The horrific scenes always re-occur in their minds, and such thought continues to weigh the participants down psychologically and make them unorganized. It is worse when the surviving participants have not been doing much to support the family while the breadwinner is alive. In this regard, the participants remain unorganized in a new environment, often begging for food. Such participants kept wandering from one place to another, searching for help, safety, and food access. The situation has put most participants on the path of food insecurity for a long time. In addition, most participants are low-skilled. Therefore, they cannot secure skilled jobs in their new destination to guarantee their food source that could make them food secure. They need to develop their human and cultural capital further to help them get jobs in their new destination. Acquiring new knowledge and skills to improve their human and cultural capital that will make them fit into their current community and provide food for their families may take several months or years. Acquisitions of these skills, usually through formal or informal training, take several months or years [95]. The participants remained food insecure for the time it took to develop these new skills or attain full human and cultural capital development in their new destination. They only become food secure when the skill acquisition is completed and can be, used to provide food for the family.

The acquisition of new skills increases their capability to access food and healthcare. This means they now have alternative job opportunities to guarantee their food access and provision of healthcare. Learning new skills may also help the participants overcome the psychological effects of losing the breadwinner and strengthen their belief in surviving their current situation without the breadwinner. Learning new skills helps remove their minds from bad feelings and experiences and assures the participants of surviving in the new environment despite their circumstances.

See the remarks of some participants as shown and discussed below.

- **Adijat** said, “I lost six (6) people during our migration process. I lost my father and five children. This is in addition to different experiences of ill health as we migrated. The death of my father was a bad one for me. Because my father set up the business, I was doing before the crisis. In addition, he later gave me some amount of money to boost my capital base. However, he was killed during the crisis. That was why, after the conflict, I could not start any business again because no one to assist me. This was why we could not feed ourselves during and after relocation. He could have helped me start my business again if he had been alive. His death and the death of my children created deep pain in my heart forever. We did not believe that this could happen to us. We will forever have to live with the pain of their death. A situation that would not have happened if not for the conflicts.
- **Shefiyat** said, “I had an affair with some men for money and other assistance to provide food for my children. I could not stand to watch my children starve to death, and there was no hope of getting money from anywhere to buy food. All the men I ever asked for help requested that I sleep with them before helping me. Therefore, after losing one of my children to starvation early in our migration, I accepted their proposal to get money to buy food for my children. I cannot watch others starve; therefore, I must do what I must”.
- **Liyatu** remarked, “After losing my husband during the crisis, my children and I stayed in Abuja for three years without significant access to food; my eldest son decided to return to Jos and work to support the family. On his return to Jos, he was affected by a bomb blast planted by terrorists at the entrance of a COCIN church

headquarters in Jos. This added more sorrow to our situation; we could no longer afford simple meals. The money realized from the menial jobs that I do and that of my second son were, used to buy medicine for my son affected by a bomb blast. This caused a significant change in our eating habits. Sometimes, I would stay for days without food. This prompted my second son to go into hard drug peddling just to be able to feed the family. My children, who knew nothing about drugs before the crisis, became drug-exposed. The National Drug Law Enforcement Agency (NDLEA) later killed one of them because of his involvement in drug peddling".

- **Idris** said, "After losing all my family members, I became sick for two years. During my sickness, people said that I used to talk alone. Right now, I do not have anybody to speak with. People sometimes see me as mentally derailed because I talk aloud to the air, but nothing is wrong with me. I do not even know that I speak to myself sometimes, except when people come to tap me to stop talking to myself".

Participants' remarks show that long-term food insecurity is deeply associated with killing the breadwinners of the families. In the case of Adijat, she could not raise money to start another business after her initial business was destroyed because her father had been killed. Liyatu and her children became confused and uncoordinated immediately after the death of their father, who had been providing for them. This makes them beg for food and get involved in drug peddling and prostitution to maintain food security. This may have prompted the eldest son to return to Jos to get something to do to provide for the family. He later got involved in a bomb blast, reducing their chances of being food secure. Because all the money they made from their menial jobs now goes for medication. The situation may also have led the others to drug peddling and addictions, which later resulted in the death of one of them. The participants in this category may also develop psycho-mental issues, which made them roam the street aimlessly due to the effects of drugs in their new destination. They may no longer have the mental capacity to think of how to appropriately provide or access food other than to keep begging for food until they can come out of such distress. This created long-term food insecurity for the participants. The remarks of Idris also confirm that poor mental capacity arising from the effects of the violent crisis and their subsequent migration could also cause long-term food insecurity.

Idris's remarks showed that he became sick for two years after losing his family members, which is associated with the violent crisis. His sickness may have resulted from the psychological effects of losing all his family members. From his remarks, the sickness lasted for two years, which means that for those two years, he was food insecure.

In the current situation, the participants require financial strength to practice the new skills acquired, which is not available to them. This, in the end, makes the participants have less access to food for a long time because they will depend on other people for food for a long time. As shown below, Aminu's remarks confirm this assertion.

- **Aminu** said, **"**I learned how to rear animals when I got to Abuja, which added to my skill and capacity to earn money. I did not just learn how to rear animals but also learned to make soap and other things. However, I have not been able to use the skills to provide food for myself because I do not have the resources to raise the animals or start doing the other things I learned. In addition, you know that raising animals involves a lot of money. Right now, the skills acquired during our stay in Abuja have not helped me in any way to increase our access to food".

The loss of human and cultural capital created food insecurity for the participants, particularly when they found themselves in a new environment where they needed more skills to do specific jobs. It takes several months or years to be able to acquire new skills that can help them to have access to food. At times, some of these new skills acquired are capital intensive, and the participants may need more time and financial capacity to start. Therefore, they remained food insecure when the new talent was not used. Sometimes, the participants may not have the mental capacity to acquire the required skills in the new environment. Judging from the participants' low educational level and qualifications, they have limited capacity to acquire highly skilled jobs. This makes some participants remain food insecure for a long time.

In summary, the finding of this investigation reveals that.

- There are three forms of food insecurity; these are short-term, intermittent, and long-term food insecurity. Short-term food insecurity was more devastating for the participants than intermittent and long-term food insecurity because people, especially children, died more during short-term food insecurity. Intermittent and long-term food insecurity appears a more manageable circumstance. The investigation also revealed that physical and emotional distress not only resulted in deaths, ailments, hunger, depression, drug addiction, loss of social capital, and food insecurity but also caused multiple migrations. This causes the participants to move across different regions and cultures, limiting their ability to access food.

- The investigation also revealed that food insecurity is a dynamic phenomenon; it changes from time to time depending on the circumstances and events of the moment. It is a trajectory that, people moves in and out depending on their circumstances at any given time.
- Regional and cultural differences and physical and emotional distress are significant factors of food insecurity for the forced migrants.

## 4. Conclusion

### 4.1. Conclusion and policy implication of the finding

- Multi-dimensional nature of the forced migrant's experiences needs an interdisciplinary policy approach. Therefore, an integrated policy system, ranging from collecting the migrant's vital statistics to the final policy statements, needs to be employed. All the agencies connected or saddled with the responsibility of care for forced migration and disaster management, such as the National Emergency Management Agency (NEMA) and Nigeria Regional Refugee Response Plan (NRRRP). Others are the National Population Commission (NPC), National Commission for Refugees, and Migrant and Internally Displaced should be involved in the policy formulation phase. Although logistics and inadequate funds may challenge the integrated approach, the Federal Ministry of Humanitarian Affairs should take responsibility for providing all the logistics and funding needed.
- Recognizing migrants' differences regarding cultural beliefs and practices and making it a key policy issue may allow for policy intervention that makes the participants settle quickly and lay ground for them to self-help strategies that will alleviate their food access.
- Policies that will discourage religious and ethnic politics in the country should be formulated to encourage religious and ethnic tolerance across the different regions of the country. This may help de-escalate the current religious and ethnic tension in various parts of the country. It will help minimize violent crises that usually result in forced migration.
- There should be a sovereign food bank created across the geo-political zones in the country. The food bank will help mop up waste food during surplus and store same not only for the people who are forced to migrate but also for emergencies and to help the street destitute who cannot afford a square meal per day.

## Compliance with ethical standards

*Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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