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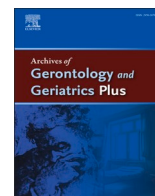
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Barriers and facilitators of social interaction and physical activity participation among Nigerian older adults

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ABSTRACT

Introduction: Understanding barriers and facilitators to physical activity participation and social interaction is vital in designing effective intervention programmes to promote the well-being of older adults. This study aimed to explore the perception of Nigerian older adults on barriers and facilitators to structured social and physical activity programme participation.

Method: A qualitative study utilising in-depth interviews was carried out among 16 older adults. Audio recordings were transcribed and analysed using thematic analysis. This enquiry was situated in the social cognitive theory, which stipulates that symbolising, vicarious, forethought, self-regulatory, and self-reflective capabilities determine behaviour describe human functioning.

Results: Programme of the old, by the old, and for the old, availability of age-appropriate and age-friendly games, self-determination and self-reliance, social-cultural and religious integration, affordable fee and subsidy, and variety is the spices of life, and available emergency preparedness were the most emerging themes. The findings indicate a complex interaction of factors which, in different combinations, acted as barriers and facilitators for effective participation in social interaction and physical activities.

Conclusion: The development of social and physical activity programmes that are responsive to age and culture may promote interaction and physical activities, which may have positive effects on older adults' health.

1. Introduction

Older adults frequently experience activity limitations, poor social interaction, functional impairment, loneliness, depression, and numerous morbidities (Faronbi et al., 2019; Faronbi & Olaogun, 2017; Sharma et al., 2021; Stuck et al., 1999). Some of these factors can exist separately or in combination, and some are antecedents to others (Sharma et al., 2021; Stuck et al., 1999). Many research efforts have demonstrated that older adults who experience activity limitations face the possibility of social isolation (de Koning et al., 2021; Faronbi & Fajemilehin, 2012; Robins et al., 2016). Accordingly, for this age group, physical activity can mitigate common symptoms of depression (such as negative thought patterns, low self-esteem, and anhedonia) by providing a distraction, a sense of accomplishment, a mastery experience, and improvements in self-evaluation (Ellwood et al., 2018; Underwood et al., 2013). In countries with nursing homes and care facilities, older

adults can socialise in addition to obtaining basic care by organising socially engaging events (Björk et al., 2017; Mahoney, 2001) and engaging in unofficial and unplanned activities (Roberts & Bowers, 2015).

As a result, nursing homes offer social opportunities where residents' sociability and social contact may be actively facilitated or strengthened through meaningful and fulfilling activities (Claessens, 2013; Kang et al., 2019). Although the presence of institutions like nursing homes does not automatically guarantee positive peer interactions (Bergland & Kirkevold, 2008), it does offer a setting for social contact to occur (Kang et al., 2022). Conversely, a dearth of long-term care facilities might be problematic for those who are unable to take care of themselves and their family (Karimirad et al., 2022). In addition, there is a lack of platforms to facilitate social connectedness (Kang et al., 2022). However, these facilities are rare or non-existent in low- and middle-income countries (LMICs), like Nigeria; even in such cases, they are culturally

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inappropriate (Faronbi et al., 2019; Faronbi & Olaogun, 2017; Mobolaji-Olajide et al., 2019).

According to Poscia et al. (2018), the absence of organised facilities and informal activities causes older adults to engage in less social activity and interaction, thereby increasing their risk of loneliness and depression. Additionally, social security for citizens (including older adults) is nonexistent in the majority of LMICs. Consequently, there seems to be a lack of programmes and facilities that demonstrate the government's commitment to social welfare for the people. For older adults who live in the community, creative and effective Structured Social Interaction and Physical Activity (SSIPA) interventions are therefore required. This programme may reduce the likelihood of depression, loneliness, and associated morbidity and mortality, as well as increase physical activity. This study aimed to explore the perception of older adults on modalities for establishing and implementing a structured social interaction and physical activity programme for older adults. This is to promote physical activity participation and social interaction among older adults in Nigeria.

2. Method

2.1. Study design

This study employed a qualitative exploratory design by using in-depth interviews to examine the experiences of older adults regarding social interaction and physical activity participation.

2.1.1. Sample data and recruitment

The study population consisted of purposeful community-dwelling older adult residents in Ile-Ife, Osun State, Nigeria. Ile-Ife is an ancient Yoruba town in southwestern Nigeria. It is geographically situated at the centre of the Yoruba-speaking states of Nigeria (Olupona, 2011). Ile-Ife, a centre for learning and culture, was selected because its location and cultural inheritance. In addition, Ile-Ife is unique because it is a university town and play hosts to the prestigious Obafemi Awolowo University, and this provides an opportunity to select retirees representing different cultural backgrounds and ethnic groups. Obafemi Awolowo University, Ile-Ife, is a federal university that attracts workers from different parts of the country, most of whom later settle in the town after retirement. This allowed us to recruit participants who represent various parts of the country.

The purposeful respondents were individuals who had retired from different walks of life. Participants were individuals who were 60 and above, based on the submission that the point at which ageing begins is roughly equivalent to the ages of 60 to 65 years, which often are the retirement ages in most countries (Jagger et al., 1993; UNFPA & Help-Age International, 2012). In Nigeria, the retirement age is pegged at 60 years; the respondents were aged 60 years and older and were community residents of the study area. These respondents were members of the retired pension association in the study community (Federal Pensioners Association). Administrative permission to involve members of the association was obtained. To ensure samples with maximum variation were selected out of these association members, socio-demographic variations concerning age, gender, occupation retired from, and socioeconomic status were used as criteria for selection. The determination of the total number of respondents to participate in the study was based on the rule of thumb for calculating the minimum sample size for qualitative study, according to Braun and Clarke (2021); Clarke and Braun (2013). Hence, a total of 20 respondents were invited to the study. However, data saturation occurred with the 16th participants. Each interview session lasted for an average duration 50 min.

2.2. Data collection

2.2.1. Instrument

Based on the literature review and informal discussions with experts,

the research team developed a comprehensive interview guide. The questions in the guide were designed to elicit their opinions about the content of the programme and the best way to conduct such a programme. Data collection took place between August and October 2020. To ensure a consistent and homogeneous interview process, the research team performed all of the interviews with the assistance of research assistants who took notes.

2.2.2. Data management and analysis

Interviews were recorded digitally, fully transcribed verbatim and anonymized. All interviews were in the Yoruba language (the dominant local language in the study location). Transcripts were in Yoruba, and we validated the accuracy by comparing the transcripts with the digitally recorded interviews. The transcript was then translated into English by a linguist who is literate in English and Yoruba.

A qualitative content analysis was carried out on the transcripts. Data analysis was performed using the software, Atlas Ti. Two researchers JOF (a nurse) and CM (a physiotherapist) analysed the transcripts independently by first paraphrasing all statements and then clustering them into meaningful categories. Discrepancies between the two analysts were resolved by the third researcher, AA, during regular consensus meetings. The research team used a deductive-inductive approach in generating categories (Wilfling et al., 2023), a primary code book was created a priori guided by the key components of the SCT related to individual behaviour change, which include self-efficacy, behavioural capability, expectations, expectancies, self-control, observational learning, and reinforcements (Bandura, 2009). The research team used a deductive-inductive approach in generating categories (Wilfling et al., 2023). Categories and sub-categories were generated deductively based on the interview guide. The category system was adjusted inductively during the analysis process (see Fig. 2). Key issues were identified and coded independently by the research team.

Ethical approval for the study was obtained from the Human Research Ethics Committee, Institute of Public Health, Obafemi Awolowo University, Ile-Ife, Nigeria (ERC/2021/01/10) and the State Ministry of Health, Osun State (OSHREC/PRS/569T/165). Community entry was obtained from community leaders, and both verbal and written consent were obtained from the participants before the commencement of the study. Informed consent was obtained through a signed consent form and included the publication of anonymised responses.

2.2.3. Rigour and trustworthiness

The researchers also conducted interviews with four older adults as part of the triangulation method to compare and confirm the validity of the study findings. We conducted peer debriefing between the researchers and some experienced colleagues to validate the findings.

3. Result

Sociodemographic characteristics of the participants.

3.1. Sociodemographic characteristics of participants

Table 1 presents the sociodemographic characteristics of the respondents in this study. The mean age of the respondents was 64.50 (± 4.37). Most of them were less than 70 years old (87.5 %) but there was an equitable gender distribution (50 % male and female respectively). Majority of them had retired about ten years and below (43.8 %), followed by those who had retired 11 – 20 years and those who had retired 21 years or more (25.0 %). The mean years since retirement was 14.32 ± 9.74 years. About a third of them were in the teaching profession (37.5), a quarter (25.0 %) were civil servants and one-eighth were executive officers (12.5 %).

Table 1

presents the socio-demographic characteristics of the respondents in the interviews.

They were over 60 years of age (< 70 = 14, over 70 = 2); Sex (Female = 8, Male= 8); years since retirement (≤ 10 = 7, 11 – 20 = 5, more than 21 = 4); Occupation (Civil servant =4, Executive officer = 2, Technician =1, Auditor, 1, Self-employed =1, Storeman =1, Teaching = 6).

Variable		n	%
Age	60 - 69	14	87.5
	≥ 70	2	12.5
Mean ±SD	64.50 ± 4.37		
Sex	Female	8	50.0
	Male	8	50.0
Years post-retirement	≤ 10	7	43.8
	11 – 20	5	31.3
	≥ 21	4	25.0
Occupation	Civil servant	4	25.0
	Executive officer	2	12.5
	Technician	1	6.3
	Auditor	1	6.3
	Self-employed	1	6.3
	Store-man	1	6.3
Teaching	6	37.5	

4. Themes

Findings indicated a complex interaction of factors which, in different combinations, acted as factors to be considered as contents in the design and implementation of a structured social interaction and physical activities for older adults. The themes include programme of the old, by the old, and for the old; availability of age-appropriate and age-friendly games; self-determination and self-reliance; social-cultural and religious integration; affordable fees and subsidies, and available emergency preparedness (see Fig. 1). The result is presented in detail as follows:

4.1. Programme of the old, by the old, and for the old

According to the majority of respondents, an effective programme for older adults should be one that focuses its design and implementation around them. They believed that they ought to be the main player and at the core of both the content creation and implementation of the programme. The necessity of professional engagement in the facility’s setup, daily operation, and maintenance was also brought up by the participants. These professionals should be cultured and friendly and address older adults with dignity and respect.

Okay, for example, those who will manage and co-ordinate activities at the centre should be people who are knowledgeable about adult education and older adult exercises, who will know the various exercises that are older adult-friendly, that the older adult ones can do (Participant 1, 62 yrs old male).

You see, a programme for the older adult should be designed by people who know the older adult and who have worked with them and also put the older adult as part of the consultation (Participant 3, 66 yrs old male).

The building should have a well-designed architectural layout to accommodate the reception and low number of respondents, a planned time for activity/center visits and a well-maintained amenity. All this should be done with a focus on the older adult population. There is a need for a good maintenance plan for the place, regular monitoring, and relevant support staff to manage the facility. A comfortable setting should include easy access to the neighbourhood, a sitting space, and supplies of water, towels, and restrooms. They recommended setting up a relaxation area for adults to engage in social interaction and activities. Respondents also identified that such centre should be equipped with good hygienic practices to provide shower, toilet, and consumables such as towel.

The facility should have water, one will need to wash her hands and face and do everything and should have small towel there, it is just like when we used to place a bowl in front of our classrooms then, with the napkin on top of the bowl, it has to be there (Participant 7, 63 yrs old female).

if there is a hall and they built water facility such that if one wants to use the toilet it can be easy (hum) [inaudible statement 51:47–55] so something like that can prolong a lot of people’s life (Participant 4, 67 yrs old male).

Participants also suggested that the facility should be well structured with different activities taking place at the specified time. Preferably such activities should take place in the morning because of the weather.

put facilities in the centres for the older adult to come relax, you have a lot of things for yourself just relax before they go back home people will go there (Participant 9, female).

the best time for activities, I think maybe early in the morning within 8, 10 and 11 or before the sun goes up (Participant 3, 66 yrs old male).

in the mornings, we can have the health talk discussion, you know I said our meetings days will be alternated, the health talk can be given to us after doing the morning exercise (Participant 10, 69 yrs old male).

For example, with that of the table tennis, it is the number of tables that is placed in the center with room for space that will determine the number of people that will be there at a time because for each table, 2 persons are expected, but when there is only 1 table for the table tennis game at the center, just as an example now and there are 20 persons standing who wants to play also, they will make the 2 persons rush to play their game, so if there are 20 persons there and there are about 5 tables to play table-tennis, so that will be 4 persons per table and they will wait for those playing to finish their game before also playing, those watching will also learn and there won’t be interference from anyone while playing. (Participant 15, 67 yrs old male).

The centre should also be spacious enough to accommodate a sizable number of older people with a low population of participants.

At most 20 persons at a time, 10 –15 persons is okay, 10 persons on each side is still okay, the place should not be crowded, for social gatherings, about 30–50 persons is okay, for indoor games that we will do, within 20–25 persons is okay. If we are quite much, our visits can be alternated, the days that we are to meet should be in rotation (Participant 8, 69 yrs old male).

4.2. Availability of age-appropriate and age-friendly games

This theme indicates participants’ proposed contents for a session including organised social interaction and physical activity programme. They recommended that it should include activities tailored to the developmental stage of the older adult. This list contains activities that are expected to be put up for the senior people. They suggested that activities should be tailored or modified by considering their age and areas of interest.

Engaging in physical activities frequently requires physical strength, therefore it is important to consider the possibility that older persons may have reduced strength. Participants expressed concern that, unlike when they were younger, they would not have the physical stamina and strength to run up and down or engage in other physically demanding activities. This has been a barrier to participation in physical activities by many of them in the past. When these activities are planned with their physical strength in mind, they look forward to participating in them with their peers.

Some of the suggested contents that the participants felt are acceptable physical and social interaction activities are breathing exercise, gardening, dancing, playing ayo/ludo, singing and dancing to traditional music, storytelling, stretching, walking, and watching games, and lifting light objects (shot put), listening to others, listening to radio, watching from television. It also includes sitting/standing, skipping, swimming, table tennis, throwing/catching, twisting, and walking/trekking.

Some stated that they would like to see themselves playing football with their peers again. They often suggested that having a football team

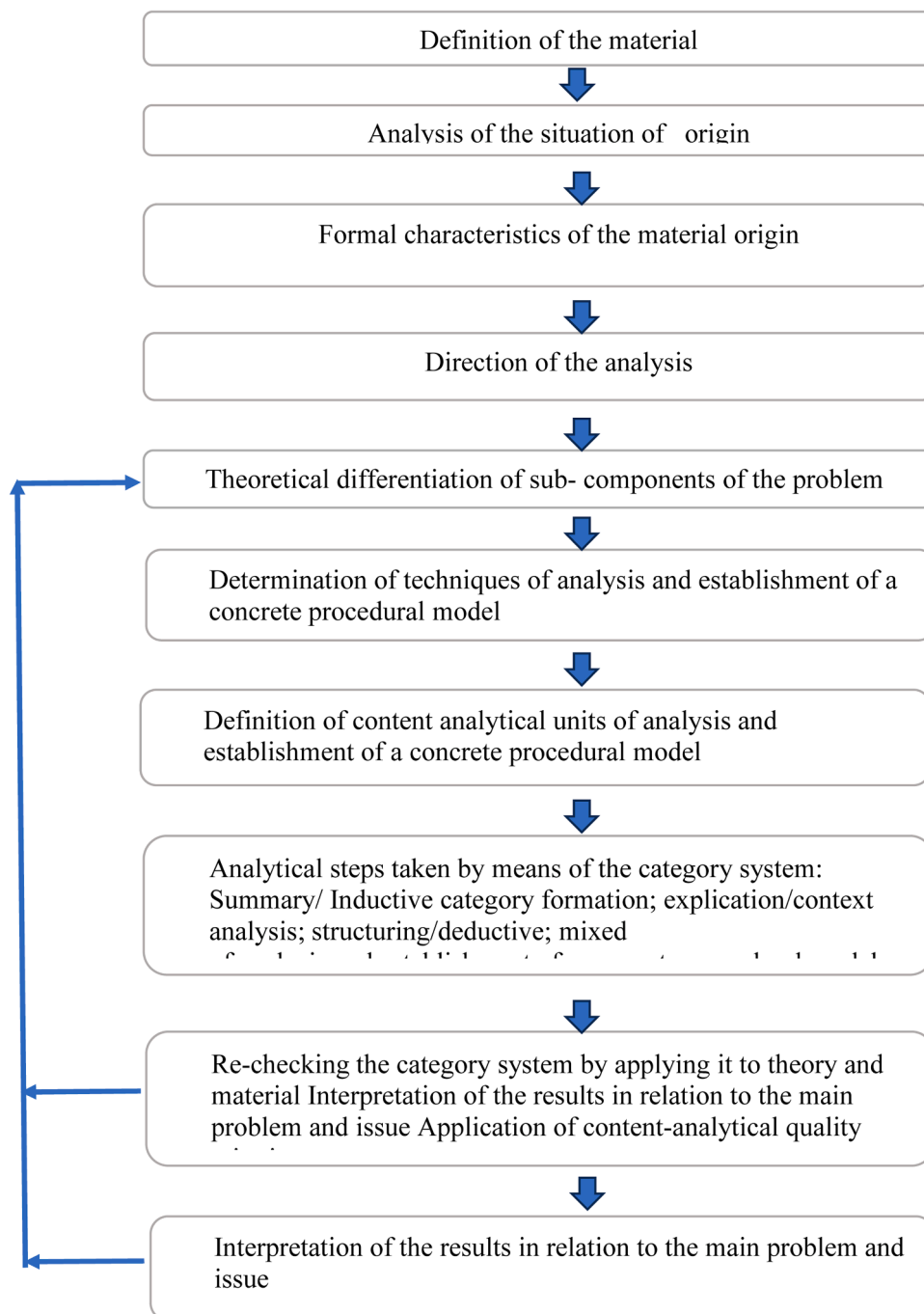


Fig 1. Illustrative process for general content-analytical procedural model adapted from Wilfling et al., 2023.

or team for any other sport that will provide an opportunity to have regular training will encourage physical activity participation and thus be beneficial to their health.

One of the things that I love to do is Ayo (Participant 6, 62 yrs old female).,

One of the games that I know how to play is playing the game of Ayo (ok sir), when about 5 of us are playing and making friendly jokes and so on and we will be laughing and that is like medicine someone said laughing makes the body healthy. If we have it again, it will be good for us (Participant 1, 62 yrs old male)

Ayo players are there and jokers which is a playful joke (Participant 2, 65 yrs old female).

when you get to Ekotedo now, you will see the older adult people playing Ayo-olopon there, like 30 in their old age that they will be making fun of

themselves like children it is part of exercise, (Participant 4, 67 yrs old male)

when we say we go for a meeting at the campus at sport center we went for a meeting but when the youth are playing ball and tennis is where our attention is because [we have done something like that before] we have done it before saying he should have done it like this with demonstration and the adult demonstrates just like the youths are doing it (Participant 8, 69 yrs old male).

Additionally, they suggested that music provides opportunity to learn native wisdom

as a true Yoruba indigene, it is not only the dance you would pick from it, you will also learn from whatever is being said. Before those people died, they did a lot of albums and I have most of it at home. The late Alhaji at Offa, I have almost all of his albums. When you listen to them, you would dance so much (Participant 5, 63 yrs old male).

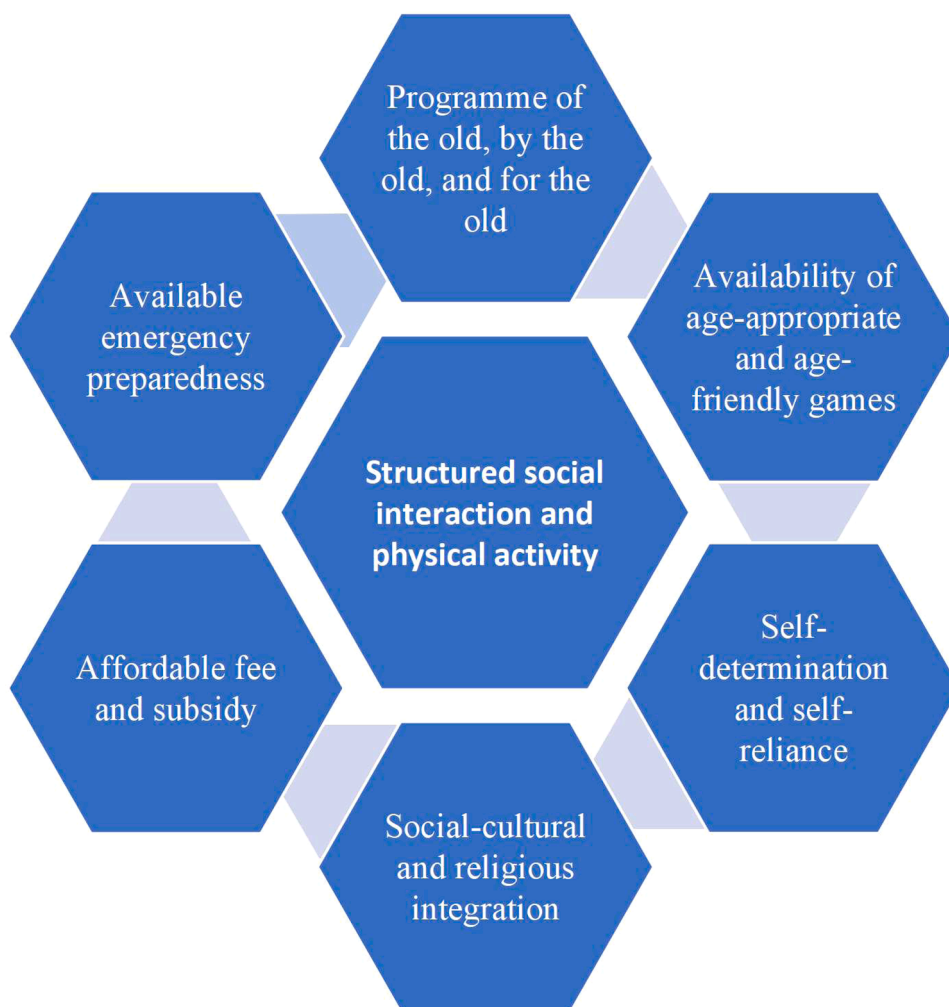


Fig 2. Structured Social Interaction and Physical Activities (SSIPA) Model.

4.3. Self-determination and self-reliance

Self-determination is having the degree of control a person desires. An individual should have a say in the decisions which affect their lives and a greater over the way in which their lives develop. This requires that they are both well-informed and have the means to act on that information. Participants believed that although they may not be as knowledgeable as the health professional, they can decide what they want rather than just prescribing for them.

I found there are a lot of activities that could be put in place, when we realise that this has advantage and it will benefit us, then it will be easier to participate, we do so with ease (Participant 8, 69 yrs old male.)

The best programme is the one that allow you to make the choice that you want with the whole of your interest (Participant 11, 64 yrs old female).

when I can choose the activity that I want to do, and not that anybody is forcing me to do it, I know I am in control, then I will do it as many time as possible (Participant 12, 69 yrs old female).

We, the old people should be seeing as people who know what they are doing and our interest and desire should be put as priority when thinking of a programme for us Participant 10, 69 yrs old male).

4.4. Social-cultural and religious integration

Some older adults may find it challenging to make the most of activities that are individually designed and sporadically located. Their energy may even be depleted by having to constantly move to engage in various activities. On the other hand, programmes that are organised

around existing activities within the community provide them the opportunity to be engaged and benefit from them.

Most of the participants claimed that they regularly engage in the following activities: attending religious gatherings, attending clubs, group storytelling, and attending ceremonies. Therefore, incorporating a physical activity programme into any of these existing activities will go a long way in encouraging their participation as well as conserving and concentrating energy in a single focus. When purposeful designed, it will also make their social interaction meaningful and with a desired result. The social interactive activities could also include intercommunal activities.

As we use to do there are so many some will go for naming ceremony some people they live in this area but when they hear that someone gave birth in another community they will be the first to go there (Participant 7, 63 yrs old female).

We can include any of these (physical activities) into either social gathering or in the church you know church is a place to meet people and that you if one is a Christian if you don't want to go out, if you don't want to go to the farm and all that, one can take the hymn book as a Christian to sing around in your house (Participant 1, male).

they can go to you know all these community friends club (Participant 14, female).

then go out with people, socialize with them, interact with them, going to clubs and all the like, (Participant 10, male).

As our fathers do in ancient times, we read proverbs and tell stories. (Participant 2, female).

I like going to church, I meet with people, including old friend and

we relate together. When you walk from the house to church, you achieve many things...exercise is there, you see old friend, and you sing and pray (Participant 13, female). there is a program, if there is a program, I can attend, for adults, for elders I mean, I can attend, educative program, I will go, because there they can tell us how to manage ourselves, what we can do so that we can live long (Participant 15, male).

4.5. Affordable fee and subsidy

Cost is a major consideration that participants repeatedly discussed during the sessions. They find a lot of programmes interesting, but one of the barriers keeping them from participating in such programme is the cost. Given the current state of the nation's economic situation and the fact that many of them do not get their monthly pensions on a regular basis, it might be extremely detrimental to older adults' involvement in such programmes if they are not free or are too expensive for them to afford. In view of this, if the programme is not free completely, then paying a reasonable amount might be a wise choice. Some even suggested that this may be one of the ways through which government can invest into the lives of the older adults. This could be in form of a lunch subsidy or transportation.

In addition (ok sir) there is a recreation club there (ok Ife recreation club) there is one in Ibadan and I know they have also in Oshogbo they have it in Osogbo then there is a golf field in Ibadan, horse riding is also in Ibadan even if you can't ride on it you can look (hum) but they have made it elitic [phone rings 37: 25–35] such that if you don't have enough money, you will not have a place there. (Participant 8, 69 yrs old male).

Incentives can also be given to older adults and that will help them to participate, either by providing transportation or other benefits (Participant 14, 76 yrs old female)..

We will be happy if there is a provision of transportation, well government can give us incentives for such programme. That may be our own dividends of democracy (Participant 15, 67 yrs old male).

They also suggested there is a need for availability of refreshment/food. Food is an important aspect. It can serve as an incentive for participants. That might even be the only food for the day for some of the participants.

availability of refreshment/food is one of the things that we need in the facility (Participant 2, 65 yrs old female,).

Food is an important aspect of life; we need food for strength and energy. It can serve as an incentive for participants. That might even be the only food for the day for some of us (Participant 16, male).

Food is good oh, it will bring many of us for the programme regularly (Participant 8, male).

If there no food, how can one do exercise, "okun inu ni afingbe ti ita" (Participant 13, female).

Cost of participation should be considerate and reasonable. Such programmes should provide free access to older people and adequate infrastructure including equipment for public address and communication systems. There should be decent accommodation of decent/responsible people and with availability of changing rooms, with availability of sitting area.

it should have a place where one can dress up, it should have a changing room where one can change her clothes upon arrival and change again when leaving the center (Participant 14 female),.

there should be a refreshment center, whereby sitting down, I can request for roasted groundnut, so by the time, I'm relaxing after taking that roasted groundnut (Participant 12, female).

As an older adult that has retired, the only monthly income is just for feeding and if we are told to pay something like 5000 Naira monthly, it is okay, that is okay for me (Participant 11, female).

if we are told to pay lets say 50 kobo to use this facility, it is not too bad, it is part of it, because we are retirees, it is not as if we have money somewhere, it is the pension allowance that I wait to collect monthly, I said earlier, that I retired as a senior technical officer, I receive pension of 20,000 Naira, till now, my children and wife will eat from the same money (Participant 15, 67

yrs old male).

Transportation is a major challenge for some of our people, especially those who live very far from the city, if government provide transportation, it is more of us to participate (Participant 11, female).

4.6. Variety is the spices of life

The feedback from the participants suggests that they will value a programme with a variety of activities as it will make it appealing for them to participate. Flexibility is one of the factors to consider while organising and selecting any programme for senior citizens. A couple of the older adults stated that they could only play traditional Ayo in most of their communities and that only a few had access to draft and ludo. Some stated that they have observed some activities on the television which they think will be beneficial to them also. Combining several activities will guarantee that the schedule is interesting and varied. A programme like this, which combines a variety of activities, will attract people's interests.

There should be a lot of people, and different types of things we can play with, this will bring interest and people may want to try things out (Participant 12, female),

Different types of sport and events could be provided so that people have opportunities to choose what they want. Every person have their interest and what they want to participate in (Participant 8, male).

We can have people coming to talk to us on health issues such as hypertension, diabetes and other conditions (Participant 11, female).

4.7. Available emergency preparedness

Some emergencies may occur when engaging in regular activities, such as physical activities and social interaction programmes. This might include minor injury, shortness of breath, sprains, strains, suspected fractures, injuries, cuts and bruises, stomach upset, vomiting, and diarrhoea, particularly in older adults who may have an underlying medical condition. Some senior citizens may be afraid of such emergencies, which may prevent them from participating, thus denying them the benefits that would have accrued to them. Knowing that there are resources in the area to handle such emergencies can reassure participants and increase their willingness to engage. In addition to taking care of emergencies, such facilities might offer possibilities for basic and regular medical check-ups as well as free medical treatment of common diseases. All these will incentivise the older people to patronise the facility, promoting interaction and physical activities. They also recommended hiring experts to assist with programme planning and facility management.

there should be a mini-clinic there, so that if at all there is any home accidents or injury, then that person can easily be attended to, there should be a nurse... it can even be a mobile clinic, so that once it is not used, when the center is not in operation, the clinic can be used somewhere else. And also once accident is beyond their capacity, they can take the person to a more standard hospital (Participant 1, male).

It must be there, and a first-aid box must be available at any place where physical activity is done. First-aid box must be available because there needs to be a prompt response to any injury that occurs while exercising at the center. For example, when one is running, and suddenly had a muscle pull, there should be "embrocation" ..."glucose" should be given to the person to rescue him before being carried to the hospital (Participant 3, male)..

Some participants suggested that they will benefit from health talk on nutrition talks

They can also come like some that come from Dentistry and take care of our teeth free of charge for like a week (Participant 5, male).

5. Discussion

The aim of this study was to explore how older individuals in Nigeria perceived the barriers and facilitators to participating in structured

social and physical activity programmes. An understanding of what and how a structured social interaction and physical activities programme may be implemented to promote the health and well-being of older adults was gained via analysis of interrelated factors. These findings are consistent with the SCT, which explains the psychological processes by which individuals classify themselves and others into various social groups based on underlying demographic attributes (e.g., age, gender, race, education), and how they interact with others in a given social context. In addition, according to SCT individuals tend to feel more socially connected to others with whom they feel alike identified and people of like manner as compared to others with whom they may not have anything in common, and these perceptions of ‘shared categorisation’ can serve as a prominent incentive for facilitating behaviour change such as ability to participate in activity that could promote interaction and physical activities.

Programme of the old, by the old, and for the old. Research indicates that a good number of older adults are still actively working in one capacity or another (Faronbi & Fajemilehin, 2012; Faronbi et al., 2022; Godfrey et al., 2014). Some of the participants, in their active working life, have engaged in various professions which may be beneficial for the development and operation of the proposed activity centre for senior citizens. They might serve as resource person in designing and implementing such programmes. Their potential and prior abilities might be put to use. In addition, the participants may choose representatives from among themselves to oversee daily operations of the facility. Furthermore, the participants may choose representatives from among themselves to oversee daily operations of the facility. They can use their untapped reserve energy to serve in the intervention.

A large number of these older adults may still be healthy and ready to contribute to the society from their abundant untapped resources. For example, Romero and Minkler (2005) opined that America parades a set of healthiest, best educated, and most vigorous group of seniors and millions of whom wanting to volunteer—or to spend more hours doing so than they already commit. Such contributions could be tailored to drive community building and healthy aging projects. In addition, Godfrey et al. (2014), submitted that some retirees were more active than their working counterparts, walking more and being sedentary less of the time. Therefore, they may make use of such energy to plan and manage an activity centre that encourages senior citizens to engage in social and physical activities. Although, the study by Godfrey was conducted among older adults aged 48–89 years community-dwelling older adults (69.1 ± 7.6 years), the presence of majority who were 60 and above suggest that the findings may be applicable in this situation.

Opportunities to have choice will be a motivator for participation. When an individual is presented with various facilities to use, they may feel more appreciated and want to engage in such activities. When given opportunities to make choices, this will likely motivate and promote engagement in physical activities and social interaction among older adults (Flowerday & Schraw, 2000). Miller and Iris (2002) opined that flexibility in choice and structure of programs contribute to seniors’ sense of control over their bodies and health.

The choice of activities was related to participants’ beliefs about their benefits and how programs fit or matched their needs and goals. Respondents attributed their present levels of health to the things they did for themselves. They demonstrated clear choices like their activities with regard to their disabilities or needs while opting for programs that fit their own interests. For example, yoga was chosen by a woman with breathing problems; weight training was used to great advantage by participants with mastectomy, arthritis, and shoulder injury. Socialization and social support are central to participation in programs, and interpersonal engagement is particularly important.

Availability of age-appropriate and age-friendly games. A strong requirement of the proposed activity centre is that there should be a variety of games and events that an individual can participate. Freedom to choose will give them the opportunity to explore various options, thereby, deciding on which one they want. A similar example of such a

programme is the Age-friendly Cities. According to the World Health Organization “In an age-friendly community, policies, services and structures related to the physical and social environment are designed to support and enable older people to “age actively”—that is, to live in security, enjoy good health and continue to participate fully in society” (Biggs et al., 2007). Hoof & Marston (2021) opined that requirements to create a age-appropriate living environments must include the involvement of older people in the design of their living environment, particularly since the importance given to neighbourhoods in old age can vary greatly (van Hoof & Marston, 2021). Similarly, the Chelmsford Senior Centre offers many participation opportunities for participant residents, including opportunities for exercise, learning new things, socialising with friends and developing craft skills or playing games. Similarly, the library also offers additional opportunities including: the Friday lecture series; training sessions for Grandparents on caregiving responsibilities for their grandchildren; learning basic computer skills; book club; elders’ climate action meetings; and intergenerational poetry sessions (Mutchler et al., 2020). It could serve as an opportunity to educate the members about health-related issues.

Self-determination and self-reliance may provide both extrinsic and internal motivating rewards. It can result in integrated regulation, which represents the most self-determined form of the internalisation process. It will allow the older adult to engage in the activities they choose, bringing harmony and consistency to various aspects of their lives. When they understand how crucial it is for them to have a healthy lifestyle, they may engage in physical activity (Ntoumanis, 2001). Teixeira et al. (2012) suggest that a large number of individuals lack the sufficient motivation necessary to engage in the required 150 min of moderately intense exercise or physical activity. It will make them to transit from a “having to” rather than truly “wanting to” participate in physical activity (Teixeira et al., 2012). This will also likely reverse the high dropout rate in externally prescribed physical activity as observed in exercise studies (Teixeira et al., 2012).

Within the premise of self-determination theory, the role of personal autonomy in human agency is accorded a primary attention as a characteristic of motivational quality (Ryan & Deci, 2000; Teixeira et al., 2012). Autonomy (or self-determination) is described as an inherent and universal human psychological need, similar with the needs for competence or capability (effectance) and relatedness (belonging) with others (Ryan & Deci, 2000). Satisfaction of basic needs promotes the optimal motivational traits and states of autonomous motivation and intrinsic aspirations, which facilitate psychological health and effective engagement with the world (Deci & Ryan, 2012).

Hammar et al. (2018) argue that focusing on older people’s capabilities will assist in providing the proper perspective of older people. They might be viewed as people who can engage in the activity, people with essential knowledge of themselves and strengths, which are parts that shape the equal partnerships between the people involved, and individual preferences always need to be considered. In addition, certain feelings: autonomous and volitional in one’s pursuits, effective and optimally challenged, and meaningfully connected to others are considered to have intrinsic benefit to the self and are essential for well-being and behavioural persistence (Ryan & Deci, 2000). Thus, individual may feel more committed in engagement and sustained participation.

Social-cultural and religious integration: Some of the characteristics that define the inhabitants in this region are their social-cultural and religious practices. Many are limited in active participation because of age and integrating a SSIPA into such existing activities will have a reciprocal effect on their life.

A similar example of this could be observed in the successful integration of mother and child health programmes into other existing programmes. Studies have demonstrated that the integration is an opportunity to maximize health benefits through the delivery of multiple health products and the attainment of high coverage and additional health interventions into immunization campaigns is increasingly

recognized as an opportunity to optimise health benefits (Boselli et al., 2011; Wallace et al., 2009). The advantage of the integration of deworming into ongoing public health interventions such as immunization campaigns is not limited to cost containment on the deworming side, the increased number of participants (women of child-bearing age, WCBA) to the integrated campaign to receive vaccination and deworming together, compared to when vaccination and deworming were done separately (Wallace et al., 2009). Yugbaré Belemsaga et al. (2018) opined that integration might be faced with severe challenges and structural barriers including human resources, financing which hindered the implementation of such an intervention and also constraints and barriers to integration must be analysed in order to find ways to overcome them (Yugbaré Belemsaga et al., 2018).

Affordable fee and subsidy: One of the factors that could affect participation is the cost of running such a facility. Amid the ongoing global economic meltdown, especially in developing countries, most older people only barely survive on their Pension and meagre resources (Faronbi & Olaogun, 2017), which may constitute an impediment to participation in activities requiring fee payment. Subsidy provision will go a long way in addressing and thus encouraging their participation.

A subsidized cost or free offer has been suggested to improve participation generally and attract those from lower socio-economic backgrounds (Candio et al., 2022; Durden-Myers & Swaithe, 2022). Providing everyone with free-of-charge organised exercise opportunities in public leisure centres located in deprived areas can attract large volumes of residents, and free access is highly likely to be cost-effective under base-case assumptions (Candio et al., 2022; Durden-Myers & Swaithe, 2022).

Participants often felt that available options failed to suit both the preferences and abilities of older people. For example, the males sometimes reminisced about their sporting activities in their younger years and bemoaned that the ageing process prevents ongoing participation in these favoured forms of exercise:

Some expressed that exercise options for older people tend to be developed for seniors as a homogenous group and, therefore, fail to accommodate different ability levels. Some were concerned about being too slow and inconveniencing other participants, while others were very uncomfortable self-identifying as someone old enough to join programmes specifically designed for the older adult:

Available emergency preparedness: Common injuries is describe a mechanical event during which a part of the body is stressed by an excessive force and tissue is damaged and these include soft tissue injuries, wounds, minor head injuries, fractures, foreign bodies and minor burns (Faronbi et al., 2024; Gloster & Ganley, 2012) and other Common health problems such as pain, fatigue, and depression which are prevalent among the general population (Faronbi et al., 2024). The presence of emergency nurses and physiotherapist to manage such emergency situation will be a worthwhile venture and will be reassuring to the participants.

Support from emergency nurse practitioners (ENPs) will be beneficial in treating patients with minor injuries, and reduced waiting times for A&E patients (Woo et al., 2017). It will also provide more holistic care for patients with minor injuries and this could involves health promotion and accident prevention, as well as treatment (Woo et al., 2017). Emergency preparedness could not be taken lightly with advancing age, as older adults are at heightened risk for harm from disasters (Bell et al., 2021). Bells and colleagues further stressed that applying principles of emergency preparedness, which aim to mitigate the potential effects of a disaster, can help older adults maintain health and function in the event of a disaster (Bell et al., 2021). The facility could also be used as an avenue to health educate the older adults on health promotion, illness prevention and living with and managing chronic conditions. This population could receive additional preparedness information and support from trusted sources, including local aging organisations or faith-based organisations (Bell et al., 2021). In addition, older adults especially those who are medically-inclined can also

contribute their experience, resources, and relationship-building capacity to prepare themselves and to support others during an emergency (Howard et al., 2017).

5.1. Strength and limitation

The strength of this study is that to the best of our knowledge, it is the first in-depth study of the barriers and facilitators to social interaction and physical activity participation and one of the first to include the perspective of older adults. Previous studies have described the barriers and facilitators to participation in physical activity for adults, but none have attempted to explore the integration of social integration and physical activities from the older adult's perspective. Collecting data that explore the perspectives of older adults will generate data that provide deeper understanding. The limitation of this study was that participants self-selected into the study giving rise to those who were more physically active were more inclined to be involved. In addition, However, if this was the case, the good news would have been that these participants would have been potentially more able to provide insight into facilitators and drivers of physical activity and older adults to be active and resourceful in overcoming existing barriers to activity and social interaction.

6. Conclusion

The development of social and physical activity programmes that are responsive to age and culture may promote interaction and physical activities, which may have positive effects on older adults' health. Such a programme is expected to be successful in reducing loneliness, and depression among older adults.

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CRediT authorship contribution statement

Joel O. Faronbi: Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Funding acquisition, Conceptualization, Supervision. **Adesanmi Akinsulore:** Writing – review & editing, Validation. **Grace O. Faronbi:** Writing – review & editing, Writing – original draft. **Chidozie Mbada:** Writing – original draft, Methodology, Formal analysis, Writing – review & editing, Supervision, Conceptualization.

Declaration of competing interests

The authors declare that they 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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Data availability

The data that support the findings of this study are available from the corresponding author, upon reasonable request.

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