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Research article

Role of leisure in the rehabilitation of stroke survivors

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ABSTRACT
Despite leisure's therapeutic efficacy, few studies have focused on how leisure contributes to the rehabilitation of stroke survivors, particularly in the context of African countries. Using the Benefits Theory of Leisure Wellbeing and interview data from 41 stroke survivors, this study examines the role of leisure in the rehabilitation of stroke survivors. The findings revealed that leisure contributed to the rehabilitation of the stroke survivors by improving their psychological, emotional, and physical health. However, leisure participation had an unintended negative consequence on their psychological wellbeing by invoking sadness and worry. The implications of the findings for enhancing the rehabilitation of stroke survivors are discussed.

KEYWORDS
Chronic disability; emotional health; Ghana; psychological health; trauma

Introduction

Stroke is one of the leading causes of chronic disability across the world (Feigin et al., 2022; Lindsay et al., 2019). With increasing urbanization and highly structured economic activities resulting in sedentary lifestyles, the prevalence of stroke is expected to increase (Feigin et al., 2022). Stroke is often sudden and life-shattering and affects the physical, emotional and psychological state of the individual as well as the family and friends of that person (Gerstl et al., 2023; Lindsay et al., 2019). Many stroke survivors develop disabilities and therefore rely on others for participation in social activities including leisure (Feigin et al., 2022; Gerstl et al., 2023). Therefore, stroke survivors require assistance, care, and opportunities to participate in social activities as a means of facilitating their rehabilitation. The rehabilitation process of stroke survivors is long term in outlook and thus requires gradual care including participation in leisure (Feigin et al., 2017; Gerstl et al., 2023). The World Health Organization (2017) describes rehabilitation as a set of interventions meant to enhance the functioning and minimise disability in individuals who have health conditions in their interaction with the environment. Rehabilitation helps an individual to recover aspects of their functioning that is lost as result of a health condition and thus make it possible for him/her to participate in social activities (Mocke, Unger, & Hanekom, 2024). Stroke results in the loss of certain functions including mobility and sometimes speech amongst others hence the need for rehabilitation (Gutenbrunner & Nugraha, 2015). Admittedly, leisure can serve as both a facilitator and outcome of rehabilitation (Harrison et al., 2022). However, this study is focused on how leisure facilitates the rehabilitation of stroke survivors rather than leisure participation as a measure of progress made in rehabilitation. Despite the potential of leisure to contribute to the rehabilitation of stroke survivors, previous research has paid less attention to the subject. Much of the previous studies (Schnitzler et al., 2019; Silva et al., 2019; Woodman et al., 2014) have focused on participation in social and daily activities post stroke with little attention on the role of leisure in the rehabilitation of stroke survivors. Also, previous studies (Forgea et al., 2021; Tamayo-Serrano et al., 2018) that have examined the rehabilitation of stroke survivors focused on contextual issues related to rehabilitation such as access to rehabilitation services and professional care without delving into the role of informal spaces such as leisure in the rehabilitation of stroke survivors. Additionally, the role of leisure in the rehabilitation of stroke survivors has rarely been examined in the context of African countries despite

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the limited rehabilitation services as well as the unique socio-cultural and economic conditions of stroke survivors in Africa. Owing to the inadequacy of rehabilitation services and formal care for stroke survivors in most African countries, leisure could serve as an alternative space to facilitate their rehabilitation, yet little is known on how leisure facilitates the rehabilitation of stroke survivors in this context.

Consequently, this study aims to answer the following research questions: what type of leisure activities do stroke survivors undertake, and how does leisure contribute to the rehabilitation of stroke survivors. A contextual understanding of the role of leisure in the rehabilitation of stroke survivors stand to extend the literature by providing insights into the lived leisure experiences of stroke survivors in relation to their rehabilitation. The findings of this study will provide new perspectives on the therapeutic efficacy of leisure in the context of stroke survivors in an African context. Similarly, the subject of leisure and rehabilitation amongst stroke survivors is under-researched in Africa and therefore the findings of this study will enrich the literature with perspectives from the unique context of Africa. In terms of practice, the findings of this study would provide useful information that would guide the design of rehabilitation programmes for stroke survivors in contexts with less formal rehabilitation services such as Africa. Findings on the leisure activities undertaken by the stroke survivors could be incorporated into their recovery programmes to aid in their rehabilitation especially in the absence of professional rehabilitation services.

Literature review

Leisure participation amongst stroke survivors

The Practice Framework of the American Occupational Therapy Association classifies leisure as a non-obligatory activity that a person is engaged in during discretionary time when one is not working, engaged in self-care or sleeping and it is also described as intrinsically motivating and contributes towards rehabilitation (Boop et al., 2020). For instance, in a longitudinal study of 346 stroke survivors in Denmark, leisure was identified as an important dimension of their quality of life (Teasdale & Engberg, 2005). In Australia, White et al. (2008) reported that stroke survivors experienced functional recovery through their engagement in leisure. Participation in leisure amongst stroke survivors is both a process and outcome of rehabilitation (Harrison et al., 2022; O'Sullivan & Chard, 2010). In the context of this study, participation is conceived as the ability of the individual to engage in any leisure activity of choice in a way that requires the integration of the influences of the immediate contextual environment (Norlander et al., 2022). Leisure participation involves the stroke survivor's involvement in an activity of choice even though he/she can rely on the resources within the immediate environment (including care givers, and family and friends) to facilitate engagement in such an activity. Nonetheless, participation is a multi-dimensional concept and as such entails different participation levels, frequency and involvement (Norlander et al., 2022). In the context of this study, participation is measured in terms of involvement in an activity. Evidence from the literature suggest that stroke survivors are inclined towards passive leisure activities because of their stroke induced functional limitations (Harrison et al., 2022).

Leisure and rehabilitation

Recovery from stroke often takes time but can be enhanced through leisure participation (Norlander et al., 2022). Leisure provides therapeutic function through the provision of leisure education, treatment and recreational services that maximises the physical and emotional functioning of stroke survivors and thus enhance their rehabilitation (Dorstyn et al., 2014; Forgea et al., 2021). The literature indicate that enhancing the stroke survivor's engagement in leisure activities helps to promote functional rehabilitation outcomes (Schnitzler et al., 2019; Silva et al., 2019). In this regard, Nour et al. (2022) found that stroke survivors reported significantly better scores in terms of independence with personal daily activities amongst leisure participants compared to a control group that received social contact only. Radomski and Latham (2008) suggest that participation in leisure could facilitate neuroplasticity – the ability of the brain to reorganise itself in response to changes in behaviour, environment, and neural process in the aftermath of stroke. Rand et al. (2010) noted that stroke survivors established significant improvements in executive skills including memory, attention and response inhibition based on 6-month combined programme of exercise and recreation. In terms of well-being, leisure is noted to increase internal locus of control, and self-esteem amongst stroke survivors (Dorstyn et al., 2014). The literature suggest that the benefits of leisure in enhancing rehabilitation of stroke survivors have mostly been focused on reducing their physical dependence on others and generally on performing daily activities (Dorstyn et al., 2014). This reflects in the priority given to physical recovery amongst stroke survivors within clinical practice and professional care for stroke survivors (Dorstyn et al., 2014; O'Sullivan & Chard, 2010). However, leisure could yield psychological benefits including providing avenues for de-stressing, mental engagement, creating happiness and reducing worry as well as uncertainty and anxiety amongst stroke survivors (Adam, 2022; Iwasaki et al., 2014).

Similarly, Hutchinson et al. (2006) note that leisure can be used for emotion-focused and problem-focused coping in the context of rehabilitation hence vital in the psychological recovery of stroke survivors. Additionally, leisure stands to improve the social relationships and bonds of stroke survivors including forming social networks and making them feel belonged (Norlander et al., 2022).

Theoretical framework

The Benefits Theory of Leisure Wellbeing is used as the theoretical underpinning of this study. The theory focuses on how leisure participation enhances the wellbeing of the participants (Sirgy et al., 2017). The underlying assumption of the theory is that leisure participation contributes to wellbeing by satisfying certain basic needs of different dimensions including health (Sirgy et al., 2017). The theory argues that leisure participation contributes to wellbeing as it provides a range of benefits related to basic and growth needs (Sirgy et al., 2017). Basic needs are conceived as needs related to safety, health, economic, hedonic, escape, and sensation seeking while growth needs are related to symbolic, aesthetic, moral, mastery, relatedness, and distinctiveness benefits (Sirgy et al., 2017). Nonetheless, due to this study's focus on rehabilitation amongst stroke survivors which relates to basic health need, the discussion of the theory focuses on the basic needs, specifically health. Thus, it is argued that the more leisure participation improves the rehabilitation of stroke survivors (health), the greater the likelihood of them participating in leisure (Lee et al., 2017). In this regard, a stroke survivor may consider the direct and indirect health benefits of leisure in terms of its ability to aid in his/her rehabilitation when they make judgement before and after participation in leisure (Newman et al., 2014; Nimrod et al. 2012). If they come to the conclusion that leisure is beneficial to their rehabilitation (health), they will be inclined towards participating in leisure (Newman et al., 2014; Nimrod et al., 2012). Alternatively, if they consider leisure to be non-beneficial to their rehabilitation (healing), then they may not be attracted to participating in leisure (Carless & Douglas, 2016).

Methodology

Study setting

The study setting is the Accra metropolis of Ghana. The Accra metropolis is the capital of Ghana and the most urbanised and populated city in the country. Like many urban centres in Africa, Accra is congested with residents spending a lot of time in traffic often resulting in increased stress. Also, the high cost of living in Accra and the hassle that characterizes city life adds to the high incidence of stress in the city. Therefore, the city of Accra has one of the highest incidences of stroke in the country (Donkor et al., 2014). Different strategies are used to aid the rehabilitation of stroke survivors in the city including limited formal care as well as traditional medicine and home care (Donkor et al., 2014). Others consider stroke to be spiritual attack and therefore resort to spiritual remedies such as prayers (Baatiema et al., 2017).

Data collection

The data were collected from 41 stroke survivors with different socio-demographic background (Table 1) who have suffered stroke for more than six (6) months (Norlander et al., 2022). People who have suffered stroke for six (6) months or more are able to reasonably participate in leisure and other daily activities (Norlander et al., 2018; Norlander et al., 2022). Also, this is consistent with previous studies on stroke survivors that focused on participation in social activities such as leisure (Norlander et al., 2022). Table 1 shows that there were more female participants in the study than males with most of the participants being over 50 years old. Further, a little over half of the participants were married with the rest being single – either never married or ever married (widowed, divorced or separated). About one-third of the participants have been living with stroke between 6 to 12 months while about another one-third have been stroke survivors for 13 to 18 months (Table 1). To determine the severity of stroke, stroke related paralysis was used as a pseudo. About two-third of them have monoplegia (paralysis of one limb) while close to half have hemiplegia (paralysis on one side of the body). Only two of the participants have paraplegia (paralysis of the legs).

The snowballing approach was used to identify the stroke survivors. In specific terms, local opinion leaders (assembly men/women) were contacted for information on people in their communities that have suffered stroke. The list was compiled together with the contact details of the stroke survivors. With the permission and consent of their caretakers and the stroke survivors, the suitability of the stroke survivors for the study was assessed. The stroke survivors were asked to indicate how long it has been since they suffered stroke. Those who have suffered stroke for 6 months or more were considered suitable for the study. Permission was taken from the caregivers because most of stroke survivors in Ghana tend to rely on their caregivers for everything and thus follow the directions of their caregivers hence the need to get the permission of the caregivers. Specifically, the study was explained to the caregiver of each of the identified

stroke survivor after which their permission was sought to directly engage the stroke survivor. Afterwards, the stroke survivor was approached directly without the caregiver being present as this could have influenced the decision of the stroke survivors to participate in the study or otherwise. The study was introduced to each stroke survivor and the person's consent to participate in the study was taken. As part of this, it was explained to them that participation in the study is purely voluntary, and they can withdraw their consent whenever they wanted. It was also explained to them that they were no right or wrong answers as long as the answers reflected their realities. Appointments for interviews were scheduled with 67 of those who agreed to participate in the study.

Profile of the interviewees (n=41)

Demographic background	Frequency	Percent
Sex		
Male	17	41.5
Female	24	58.5
Age (years)		
30-40	10	24.4
41-50	12	29.3
51+	19	46.3
Marital status		
Never married	6	14.6
Ever married	13	31.7
Married	22	53.7
Time post stroke (months)		
6-12	15	36.6
13-18	16	39.0
19-24	6	14.6
24+	4	9.8
Stroke related paralyses		
Hemiplegia	14	34.1
Paraplegia	2	4.9
Monoplegia	25	61.0

In-depth interview guide was used to conduct the interviews. The interviews were conducted with a semi-structured interview guide. The semi-structured interviewed guide contained questions regarding the main issues as related to the research questions. The semi-structured nature of the in-depth interview guide allowed for the gathering of deeper contextual data by allowing the interviewees to express their views without limitations. The semi-structured interview guide was organised around three areas. Questions on the first area related to the leisure composition of the stroke survivors. The questions related to the types of leisure activities undertaken by the stroke survivors as well as the context within which they undertook leisure - whether home or non-home environment. Additionally, questions about the reasons underlying the participation and choice of specific leisure activities were asked under this section. The second section of the guide focused on questions related to the stroke survivors' perspectives on how their participation in leisure facilitates their rehabilitation. They were asked to indicate how leisure is contributing to their recovery from stroke. The last section of the guide asked questions related to the socio-demographic and living conditions of the stroke survivors. The data collection took place from 4th September 2023 to 7th November 2023. However, out of the 67 appointments, 41 interviews were conducted. The rest of the stroke survivors either withdrew their consent or relocated outside the metropolis. The interviews were conducted in person (face-to-face). They were conducted in the homes of the interviewees at their requests due to their conditions. Nonetheless, the care givers were not allowed to be present during their interviews. This was to ensure the confidentiality of the interviewees and guarantee their ability to freely express themselves. The interviews were conducted in the local language of Twi. The translation of the transcripts from Twi to English did not affect the quality of the data as the translation was verified by two professors of Twi language who are also lettered in the English language. Each interview lasted an average of 50 minutes. The interviews were recorded with the permission of each respondent.

Data analysis

The recorded interviews were transcribed verbatim. All the responses were transcribed to ensure that no data were lost in the transcription process. The data analysis was undertaken using the Braun and Clarke (2006) method that consist of six phases of thematic coding. The thematic analysis was guided by the research

questions and theoretical framework of the study (Braun & Clarke, 2006). The first phase involved reading and re-reading of the transcripts to familiarize with the data. The second phase entailed the process of identifying the themes. This was guided by acknowledgment of the transcripts, the research questions, and theoretical framework and then reviewing the themes to determine major themes and how these major themes align with the narratives of the respondents. The third phase involved making sense of the ways through which the major themes are related to the respondents' experiences and subjectivities and how these differ within each respondents' transcript and between respondents. In the fourth phase, the identified major themes were reviewed and refined to guarantee that they were reflective of the data and answered the research questions. The fifth phase involved defining and naming of the major themes. In the sixth phase, the major themes were presented through the analytic narratives as detailed under the results section. A number of measures were used to check for the validity and credibility of the data and codes. First, all the transcripts were used for the analysis. Next, the consistency of the codes was verified with the inter-coding technique by checking for inter-coding agreement (Hsieh & Shannon, 2005). Specifically, two people were engaged in the coding exercise after which the codes generated from of them were compared to ensure consistency. Largely, the codes generated by the two people were similar and therefore confirmed the consistency and validity of the codes (Hsieh & Shannon, 2005). Additionally, the credibility of the codes was checked using the peer-debriefing approach. Here, the codes were given to two stroke survivors who were part of the respondents to compare the responses making up the codes to the transcripts and ascertain whether they reflect the views expressed. A message was sent to all the stroke survivors who participated in the study to volunteer in the debriefing process. Consequently, two of the stroke survivors volunteered. After a two-day orientation, the volunteers compared the code responses to the transcripts to ensure they accurately represented the views expressed. As the invitation to volunteer had been sent to all participants, all were aware that two peers would see their transcripts. Participants could object to their transcripts being viewed by peers, but none did. Each of the two volunteers received GHS1500 for their services.

Results and discussion

Leisure activities and context

Leisure activities

The findings revealed that the leisure activities of the stroke survivors were predominantly sedentary. The main leisure activities undertaken by the stroke survivors are watching of television, going on walks, chatting, playing board games (Ludo, Aware, Dame), listening to music, and meditation. Mark, a 36-year-old male who suffered stroke 9 months earlier narrated that: *"I suffered stroke 9 months ago. My condition has improved and therefore I am able to undertake some leisure activities. Mainly, I engage in chatting, watching television and listen to music. These are the activities that I can undertake for now and so I try to enjoy them because I cannot participate in any physical activity even though I wish I could have done so but my condition will not allow it.*" Mark, 36-year-old male stroke survivor. The passive nature of the leisure activities undertaken by the interviewees were similar regardless of the duration post stroke, the kind of paralysis suffered and sex of the stroke survivor. Adjoa, a 43-year-old female stroke survivor who suffered stroke 16 months earlier remarked that: "*I undertake leisure activities such as chatting with my friends and family, watching television and playing of ludo. I like these activities as they help me to relax and enjoy myself with my family. As my condition improves, I would probably be adding to these activities but for now I like these activities*" Adjoa, 43-year-old female stroke survivor. Stroke causes chronic disability especially in relation to mobility impairment hence stroke survivors are significantly impaired in their movement and thus experience difficulties in undertaking physical active leisure (Rand et al., 2010; Schnitzler et al., 2019). Harrison et al. (2022) reported that physical difficulties which relates to mobility impairment is the most significant barrier experienced by stroke survivors in their quest to undertake leisure. For this reason, stroke survivors' engagement in leisure is limited in scope and tend to be dominated by activities that are sedentary in nature since those activities can reasonably accommodate their physical difficulties. In the Ghanaian context, this finding could be explained by the lack of professional caregivers and the reliance on family and friends to care for stroke survivors. Their preference for indoor-based passive leisure could have been influenced by their caretakers since such caretakers are usually family members or friends who have to combine the dual role of caring for the stroke survivor and working to meet the other economic needs thus making it difficult for them to dedicate time and resources to help them engage in outdoor-based active leisure. Also, the family members and friends exert significant influence on the choice and ability of stroke survivors to participate in leisure (DeLuca, 2016). Family and friends do not only serve as co-participants, but they also determine when, where and even the type of leisure that the stroke survivor can undertake (Harrington, 2015; Zhao et al. , 2024). In the context of Ghanaian societies, such caregivers are members and friends and without whom the stroke survivors may find it difficult to engage in leisure.

Additionally, the interviews revealed that the stroke survivors undertook leisure within their home environments due to the stroke induced mobility limitations on them. Abena, a stroke survivors indicated that: "*Well, it is not as if I deliberately engaged in in leisure at home, but it is my medical condition that consigns me to the home environment. As you can see, I cannot move around freely without help and so the only realistic place to engage in leisure is within the home environment*." 49-year-old female stroke survivor. A similar view was shared by Dan who remarked that: "*My leisure is confined to my home environment. Obviously, my condition dictates that my leisure is undertaken only at home because I cannot move outside the home for leisure even if I wish to. So, for me it is not a problem because I understand why it has to be so.*" 45-year-old male stroke survivor. Stroke induced impairment results in functional limitations including mobility impairment, neurological and psychological impairments (Boop et al., 2020; Forgea et al., 2021). These kinds of functional limitations restrict of stroke survivors in outdoor leisure (Condie, 2021). This is especially the case for stroke survivors within the context of Africa and other resource constrained regions where outdoor leisure spaces are physically inaccessible (Adam et al., 2017). Similarly, other barriers such as lower levels of energy, lack of independence (reliance on caretakers) and psychological difficulties (lack of self-belief in their ability to undertake physical active leisure) consign stroke survivors to indoor-based leisure (Harrison et al., 2022).

Leisure and rehabilitation

Leisure participation amongst the stroke survivors was found to shape their rehabilitation in both positive and negative ways. In terms of the positive role of leisure on rehabilitation, the findings revealed that leisure participation enhanced their psychological, emotional, and physical health. However, leisure participation negatively shaped the psychological and emotional health of the stroke survivors.

Psychological rehabilitation

In terms of the positive psychological contribution of leisure to rehabilitation, the respondents revealed that leisure participation helped to reduce their cognitive dissonance, construct positive self-image, and improve their overall mental health. The respondents were of the view that participation in leisure helped them to accept their disability as stroke survivors. This view was conveyed in the sentiments expressed by Abena, someone who has had stroke for 20 months when she indicated that: "*When I engage in leisure it helps me to forget about all the worries associated with my stroke. When I got the stroke, I used to think a lot about my condition and whether I will recover. But I started engaging in leisure after some time. Through activities such as chatting and listening to music I have come to accept my situation and got hope that I will recover*. Abena, 46-year-old female stroke survivor. The variability in the role of leisure in contributing to the psychological rehabilitation of the stroke survivors is across different age groups, sex and severity of stroke in terms of stroke induced paralysis. In this regard, Papa, a stroke survivor for the 32 months recounts how leisure has helped in his psychological rehabilitation after suffering a life changing event like stroke. He intimated that: "*At the beginning I was so down and felt depressed. But later as I started engaging in leisure with my family and friends it helped me to start refocusing my thoughts away from my condition. I stopped thinking a lot about my stroke and I started getting hope. Leisure therefore gives me the mental strength in my journey to recovery*." Papa, 33-year-old male stroke survivor. Leisure performs a therapeutic role of leisure in dealing with negative life events such as stroke (Harrison et al., 2022; Walsh, Galvin, Loughnane, Macey, & Horgan, 2015). Leisure is noted to possess the efficacy to help people who have suffered negative life-changing events with the mental strength and desire to recover (Dorstyn et al., 2014; Walsh et al., 2015). Leisure helps to reduce negative mental conditions such as fear, anxiety, worry, and uncertainty associated with negative life events (O'Sullivan & Chard, 2010). Through leisure, stroke survivors are mentally engaged in activities that are of interest to them, mentally stimulating, and establishing and consolidating social relationships which help them to desire recovery and keep striving for it (O'Sullivan & Chard, 2010). Also, the excitement about the opportunities and challenge of engaging in new leisure activities keep stroke survivors psychologically stimulated with an associated sense of optimism for the future regarding their eventual rehabilitation (Harrison et al., 2022; O'Sullivan & Chard, 2010). Thus, engagement in leisure helps stroke survivors to begin to erase the doubts about their eventual recovery (Dorstyn et al., 2014). This reduction in cognitive dissonance as result of leisure engagement is crucial because it helps to lower anxiety, fear, and worry associated with stroke and thus put them on path of psychological rehabilitation (Della Vecchia et al., 2021; Norlander et al., 2018).

Regarding the negative psychological impact of leisure on the rehabilitation of the stroke survivors, leisure sometimes resulted in creating doubts in their minds as to whether they can to recovery or not. In this regard, some of the respondents considered themselves as burden and disruption to the lives of their caregivers (family and friends). This view was conveyed by Kwamina, who has been living with stroke for 24 months when he observed that: "*Like I said, leisure contributes to my recovery but sometimes it also*

makes me worry. There are times if I am unable to walk or some things occur during our chat that reminds me of my condition and makes me worry about my current situation. Unintentionally, they (caregivers) sometimes explain things to you as though you are unintelligent. This makes me worry about my situation." Kwamina, a 51-year-old stroke patient. A similar view was expressed by Afia who suffered stroke 38 months ago when she indicated that: "*Sometimes the subject of our conversations during chatting gives me negative thoughts. My caregivers unintentionally say things that hurt me and make me think about my condition because that is what is preventing from being normal like them. This is sometimes worse when they (family members) make comments that indirectly suggest that I can't do it because of my condition. This makes me sad*." Afia, 31-year-old female stroke survivor. Leisure can have unintended negative consequence on the psychological health of stroke survivors. Though leisure is not designed and undertaken to contribute negatively to the psychological health of the stroke survivors, the leisure context and circumstances of their ability to participate in leisure results in unintended negative outcomes on their rehabilitation process (Harrison et al., 2022). Harrison et al. (2022) found that one of the main inhibitors of leisure's contribution to the rehabilitation of stroke survivors is psychological barriers since leisure sometimes triggers negative self-thoughts that magnify stroke survivors doubts about their abilities as well as projecting the idea that they are burden on their caregivers including family and friends.

Emotional rehabilitation

Another dimension of leisure's contribution to the rehabilitation of the stroke survivors relates to its ability to impact their emotional healing. The interviewees indicated that leisure participation gives them the feeling of being loved. Through leisure, they interact with their caregivers (family and friends) which leads to the strengthening of bonds and love between them. Akua who has been living with stroke for 26 months remarked that: *"I feel loved because of leisure. When I participate in leisure, I do it with my family and friends who are mostly caring for me. For them to be able to get time to participate in leisure with me shows that they love me and care for me. So, my bond with them has become stronger.*" Akua, a 38-year-old female stroke survivor. Similarly, Kwaku, a stroke survivor for 8 months remarked that: "My family who care for me dedicated time to participate in leisure with me. They want me to be happy. Our bonds have grown stronger, and I also feel loved by my family members. This is important to me as it makes me get the feeling that I have their support and makes me want to do my best to recover." Kwaku, 53-year-old male stroke survivor. Leisure strengthens relationships and ultimately engender the feeling of being loved (Tse et al., 2019; Yu et al., 2018). Leisure is a socio-cultural space and therefore lends itself to the elements of socialization (Adam, 2022). During leisure, co-participants get to interact and explore mutual interests which enhances the bond between the participants. In the context of the stroke survivors, the co-participants perform additional role of caring and helping the stroke survivors to engage the leisure (Silva et al., 2019). The sudden occurrence of stroke is life shuttering which affects all the aspects of life of the stroke survivors including their emotions as characterised by their constant state of sadness and loneliness (Silva et al., 2019). Such emotional states lead to frustrations and mood swings and present significant setbacks to the rehabilitation of stroke survivors (Woodman et al., 2014). Consequently, participation in leisure provides avenues for stroke survivors to engage in activities that are of interest to them and make them happy as well as encourage interaction with their caretakers which helps them to deal with their loneliness and frustrations (Silva et al., 2019; Woodman et al., 2014). Similarly, the bond between the caregivers and the stroke survivors are strengthened during leisure which ultimately enhance their rehabilitation.

Further, leisure contributes positively to the emotional healing of the stroke survivors by making them happy. According to the respondents, engaging in leisure gives them a sense of fulfilment and happiness. This perspective is captured in the remark made by Afua, who had been living with stroke for 14 months when she indicated that: "*I feel happy during leisure and so I would say that leisure makes me happy. You know with this condition you can be depressed and frustrated and so leisure helps to uplift your mood and make you happy. Through leisure I spend time with my family and friends and share some joyous moments with them*." Afua, 41-year-old female stroke survivor. Ali equally noted how leisure continuously helps to uplift his mood and thereby minimises his sad moments. He noted that leisure makes him happy and such moments of happiness have helped him to always remain optimistic about his chances of recovery. He intimated that: "*Leisure is important in my efforts to recover from my stroke. Stroke dampens your mood and makes you sad every time and so leisure provides me the opportunity to get out of the sadness by being happy. This makes me cheerful and optimistic about my recovery*." Ali, 55-year-old male stroke survivor. Leisure is inherently pleasure laden since leisure is undertaken with the aim of reaping some benefits. In the context of this study, leisure performs the role of turning sadness into joy by allowing the stroke survivors to have fun with their family and friends. Stroke is sudden and life changing often leading to chronic disability (Feigin et al., 2022). This leaves stroke survivors confused, worried and sad hence the importance of leisure in helping to change this mood. Through leisure, stroke survivors engage in activities that they

love and spend time with their loved ones which help to make them happy. Meanwhile, happiness has been noted to be associated with emotional healing such that it creates and reinforces positivity which is essential to the overall healing of people who have experienced health trauma such as stroke (Chun & Lee, 2010; Hwang et al., 2016).

In some cases, leisure contributed negatively to the emotional rehabilitation of the stroke survivors. Specifically, leisure participation sometimes resulted in sadness and increased the anxiety of the stroke survivors. Here, specific comments made by their caregivers during leisure remind them of their disability and thus make them feel sad. In other cases, their reliance on the caregivers is made apparent during leisure and this makes them sad as they feel they have become burden on the caregivers. These views were captured by Ebo, who has had stroke for 17 months when he said that: "*Sometimes leisure makes me sad. Sometimes some of my family members or friends make comments about my disability that makes me sad. Even though they do not intend to hurt me with their comments, such comments simply remind me of my stroke condition and the associated disability. Sometimes too, I realise that I overly rely on them during leisure and therefore feel that I have become a burden on them and this makes me sad*." Ebo, 38-year-old male stroke survivor. Another stroke survivor, Akosua shared a similar view when she remarked that: "*Sometimes I become sad during leisure especially when we are chatting. Some of my family members and even friends unintentionally make comments that hurt me and make me feel bad and therefore affect my desire to continue to work towards recovery. The comments make me doubt my abilities. Sometimes they use phrases or proverbs that make me feel belittled and sad even though they do not mean to hurt me*." Akosua, 49-year-old female stroke survivor. Though chatting positively contributes to their emotional rehabilitation, the subject of the discussion could sometimes lead to emotional melt down rather than healing. Subjects of discussions during chatting that casts doubt on the ability of people need to be carefully avoided in order not to trigger negative feelings amongst stroke survivors. Similarly, the use of exclusive language during chatting that tends to cast doubt or belittle the ability of stroke survivors tend to have negative emotional outcomes on them. This is especially important in the context of Ghanaian societies where the use of some exclusive language during conversations have been normalise even though such language tend to cast doubt over the ability of people with functional limitations. Thus, both the content of chatting and the nature of the language used during chatting that occurs within leisure remind stroke survivors of their conditions hence making them sad (Harrison et al., 2022; Woodman et al., 2014). In most Ghanaian societies, the caregivers for stroke survivors are family and friends and therefore may not be professional caregivers. Therefore, they may lack the necessary awareness including how the content and language of their chat with stroke survivors could have negative emotional outcomes on their rehabilitation.

Physical rehabilitation

Some of the stroke survivors further indicated that leisure helps to improve their physical rehabilitation. According to them, their engagement in leisure helps them to exercise and therefore improve their physical health. This view was shared by those who engage in leisure activities such as walking and playing of board games. This view is conveyed by the sentiments expressed by Kwadjo who suffered stroke 16 months ago when he intimidated that: "*Leisure has contributed to improving my physical abilities. Because I engage in walking and playing of games like ludo, and draft, I can now exercise my body a bit. Gradually, I have seen that I am able to lift my left arm and leg better than before. I was paralysed on the left side of my body but now I am gradually gaining control on that side.* Kwadjo, 44-year-old male stroke survivor. A similar view was shared by Daniella who indicated that leisure has helped to improve her physical abilities. She indicated that: "*At the beginning I could not move my left arm and leg but now I can move them slowly. By engaging in leisure, I was encouraged to gradually try to move the arm and leg with the aid of my family members and clutches. Those gradual efforts are beginning to yield results as you can see.*" Daniella, a 43-year-old female stroke survivor. Leisure has the ability to improve the physical health of stroke survivors (Harrison et al., 2022; Woodman et al., 2014). Leisure, especially physical active leisure is noted to improve mobility, coordination as well as cardiovascular function which translates into better health conditions and wellbeing (Paggi et al., 2016). Amongst stroke survivors, leisure participation may serve as a form of physical exercise where the affected body part(s) could be engaged to improve its functioning (Della Vecchia et al., 2021). Similarly, leisure participation helps to improve on the cardiovascular health of stroke survivors and thus facilitate their rehabilitation (Hwang et al., 2016).

The Benefits Theory of Leisure Wellbeing (Sirgy et al., 2017) helps to explain why the stroke survivors undertake leisure. As revealed from the findings of the study, the stroke survivors in all instances were inspired to participated in leisure because of its potential benefits to their psychological, emotional and physical recovery. The stroke survivors were of the view that leisure contributes to their rehabilitation and thus the basis for which they engage in it. The stroke survivors largely benefitted from their engagement in leisure through its contribution to their recovery, underscoring the therapeutic function of leisure.

Nonetheless, leisure has an unintended negative consequence on the rehabilitation of the stroke survivors. Such a negative spillover consequence of leisure on the health outcomes of leisure, though not anticipated in the theory, does exists and occurs amongst vulnerable groups such as stroke survivors. Hence, this study extends this theory by suggesting that while leisure may be undertaken for its potential benefits, there are unintended negative consequences that may arise, but such negative consequences do not dissuade the participants. Therefore, the original conception of the theory that projects it as purely benefit based theory which drives the participation of people in leisure need to be revised to take cognisance of the specific contexts of the leisure participants, particularly in the context of people who lack independence in deciding their leisure activities, and the ability to undertake leisure without the assistance and participation of co-participants.

Conclusions

Based on the findings of the study, the following conclusions are drawn. First, the study concludes that the leisure activities undertaken by the stroke survivors are largely home-based and sedentary. However, some of the respondents who have the capacity were able to engagement in active leisure such as going for walks and the playing of board games. Second, it is concluded that the family and friends of the stroke survivors are important partners in leisure participation amongst the stroke survivors. Family and friends are the main caregivers of the stroke survivors and therefore serve as co-participants who assist the stroke survivors in leisure. Third, it is concluded that leisure participation largely contributed to the rehabilitation of the stroke survivors by improving their psychological, emotional, and physical health. Fourth and lastly, it is concluded that leisure participation amongst the stroke survivors has unintended negative outcomes on their psychological and emotional health. Though leisure participation yielded positive dividends on their rehabilitation, there were some unintended negative outcomes on their psychological and emotional health. Psychologically, some of the stroke survivors sometimes became sad during leisure due to the use of certain words as well as their over-reliance on their family and friends.

Implications of the study

The findings of this study have a number of implications that are worth highlighting. The findings of the study suggest that that there is the need for leisure to be included in the recovery programmes of stroke survivors due to its contribution to their rehabilitation. Leisure contributed to their psychological, emotional and physical healing and hence an important tool that can be included in the treatment package of stroke survivors. Therefore, health authorities in Ghana including the Ghana Health Service should consider adding leisure to the treatment toolkit of stroke survivors. Additionally, there is the need to design specific leisure hubs for stroke survivors to facilitate their recovery. These leisure hubs should be accessible and manned by professionals to enable stroke survivors to participate in leisure in a safe and professional environment to maximise the positive impacts of leisure for their recovery. Lastly, the professionals that will manage and provide services at the leisure hubs should be trained on how to provide leisure service to vulnerable people including stroke survivors. The psychological dimension of service provision to stroke survivors as well as the use of inclusive language should be part of the professional training of the professional leisure service providers. This will ensure that they understand and manage the emotions of stroke survivors and thus will not act or speak in a way that could unintentionally diminish the positive contribution of leisure to the rehabilitation of the stroke survivors.

Limitations and future research

This study has a number of limitations that give opportunities to future studies. There are differences in the severity of stroke conditions such that stroke may be mild or severe. Therefore, the severity of the stroke condition will define the type of leisure activity that the stroke survivor could undertake. However, the severity of stroke was not considered in this study. Consequently, future studies may consider the severity of stroke suffered by each individual and how this affects the choice of leisure activity and the associated contribution to rehabilitation. Also, the stroke survivors who were engaged in this study were at different stages of recovery and that could have affected their choice of leisure. Nonetheless, this study did not consider the various stages of recovery and how this impacted on the choice of leisure activity. Therefore, future studies should consider the stage of recovery amongst stroke survivors and how this influences their choice of leisure activity and impact on their rehabilitation. This will provide additional insights and nuanced findings on the role of leisure in the rehabilitation of stroke survivors. Lastly, the findings are limited to the context of the stroke survivors captured in this study and does not reflect the realities of many more stroke survivors who are not captured in this study. Therefore, the study cannot be generalised. Consequently,

future studies can use the findings of this study as a foundation to collect quantitative data from large sample of stroke survivors. Such an approach will allow for the generalisation of the findings to establish the pervasiveness of the findings establish in this study amongst stroke survivors.

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