

Innovations

Recreational Facilities and Health Promotion in Southwest Nigeria: The Role of Nonmedical Intervention

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Abstract: *The usage of non-biomedical intervention otherwise known as recreational facilities is a new strategy employed to enhance patient recovery in hospitals. These facilities such as board games, gym facilities, arts, reading room and music, helps engages patient in different recovery activities. Therefore this study is set to investigate recreational facilities as nonmedical intervention for patient health promotion as reported by health professionals. Six hospitals were selected in Southwest using stratified and purposive sampling techniques. While data was elicited using 362 questionnaire through snowball sampling technique and six (6) participants were interviewed using purposive sampling technique. Data analysis utilized descriptive, thematic, and inferential statistics. The findings ($\beta=0.672$, $t=7.717$ and $P<.001$) indicate that the availability of recreational facilities have positive effect on patient health promotion. This nonmedical interventions effectively reduced the levels of stress, anxiety, and depression in patients. They also decreased hospital readmission rates, shorter recovery periods and provide a necessary diversion from the monotony of hospital routines. Health professionals consider it beneficial for patient to engage in recreational facilities/nonmedical interventions in the hospital. The study provides valuable insights into how these interventions can augment hospitals' clinical treatment and enhance health promotion, thereby strengthening the region's healthcare sector and foster a holistic approach to healthcare in Southwest Nigeria.*

Keyword: *Recreational facilities, patients, health promotion, nonmedical interventions, healthcare*

Introduction

Growing awareness over the past few decades has shown that depending exclusively on biomedical facilities is insufficient to guarantee better health outcomes. This shift is due to the emergence of global challenges that have prompted changes in the healthcare landscape, leading to the adoption of health promotion strategies (WHO, 2008). Nowadays, hospitals are expanding their role beyond traditional diagnosis and clinical services to embrace health-promoting approaches and incorporating non-medical interventions such as recreational facilities, nutritional services, social support, coaching, and more (Hamidi, et al., 2017). According to Sigerist, the main goals of medicine are to promote health. These goals include giving people access to a reasonable quality of living, favourable working conditions, education, physical culture, and ways to rest and relax (Kumar &Preetha, 2012). In United Kingdom and other nations have realized the value of health promotion in public policy, as evidenced by recent initiatives like "End PJ paralysis," where PJ stands for pajamas (Doh, 2015). In order to reduce extended bed rest, the program encouraged patients to get out of bed, put on clothes, and engage in activities that will make them feel better while being hospitalised (Oliver, 2017). This movement has been successful in motivating hospitals around the world to increase patient activity levels. This is because one of the primary concerns associated with prolonged hospital stays is the risk of physical health deterioration due to inactivity. Clarke, Stack, and Martin (2018) highlight how lack of physical activity during hospitalisation can exacerbate existing health conditions and delay recovery. In addition to physical health concerns, the mental well-being of hospitalized patients is also at risk due to inactivity (Channine, Caroline & Marion, 2017). Similar to this, children's hospitalisation process also causes an imbalance in their development because it interrupts their social and academic lives and results in a number of stressful and painful situations ((Fuqua, 2012). Therefore a comprehensive, multidisciplinary, and humanised approach must be implemented in order to support hospital adaption (Van Rooyen& Janine, 2013), where areas for amusement, socialising, and leisure are offered (Adam-Castello, et al., 2023). As a result, integrating nonmedical/ recreational facilities into hospital settings have been developed.

Recreational activities is regarded as an integral component of all-encompassing patient care aimed at preserving their mental and physical health of hospitalised patients (Clarke, Stack, & Martin 2018). Virginia Henderson proposed that leisure and recreation are basic needs that must be met when providing care (Henderson, 2021). These days, this psychosocial treatment focused on entertainment and leisure is mostly provided in hospitals by non-governmental organisations and/or other patient associations (Bermúdez Rey, 2011). The WHO therefore suggests giving this requirement more attention, especially in the European Union. To that end, it

published the "Declaration on Promoting Patients' Rights in Europe" (Pre-max, 2016), which could serve as a model for other WHO areas. In the same way, the "American Hospital Association" (2021) shows how healthcare professionals must deliver high-quality treatment, and the "American Nurses Association" (2021) includes a commitment to meeting everyone's needs in its Code of Ethics. Hospital nonmedical interventions that have been shown to be effective in improving patient mood include music sessions, art sessions, board games, miniature libraries, bead making, crocheting, table tennis, electronic devices, play, gym facilities, dance and others (Adam-Castello, et al., 2023). Both adults and children have proven the advantages of hospital activity treatments, such as improved mood, decreased readmission rates, stress reduction, improved communication, companion relief, and patient adaptation to the hospital (Bermúdez, Alonso, Arnaiz&Ocio, 2019). In order to improve patient-centered care and the hospital experience, healthcare workers must thereby encourage leisure promotion and resource management in the hospital (Van Rooyen& Janine, 2013). In line with this, most hospitals around the world are implementing these approaches. While in Nigeria, the healthcare system, comprising both the public and private sectors offering tertiary and secondary healthcare, is yet to implement non-medical interventions in clinical treatment (Oleribe, et al., 2015; Adeloje, et al., 2017). Many development plans have been created in the nation over the last few decades to support healthcare facilities and patients' well-being. Offering promotional, protective, restorative, and rehabilitative services to a larger percentage of patients was the main goal of one of the national development plans. The plan emphasizes the necessity of implementing nonmedical efforts in order to move from curative to promotive health care (Lambo, 2015). The absence of the knowledge about the availability and use of nonmedical/ recreational facilities interventions for promoting patient health in southwest, Nigeria form the premise of this study

Literature Review

The notion of health promotion and the health care system are always evolving in response to the effects of the environment and culture, scientific discoveries, and technological breakthroughs. This shift actually occurs from treatment to health promotion and protection (On, 2016). Without a doubt, the definition of health promotion provided by the WHO in the Ottawa Charter (WHO, 1986), defines health promotion as the process of giving people more power to take charge of and manage their health. According to the World Health Organisation (WHO), health is more than just the absence of illness or disability; it is the condition of whole physical, social, and mental well-being. One of every person's fundamental rights is the enjoyment of the best possible standard of health (WHO, 2008). Many of the activities that fall under the category of health promotion are either directly or

indirectly the responsibility of the health sector. Thus, the health sector has the primary duty and obligation for health promotion (Kumar & Preetha, 2012). In reality, because it is patient-centered, the health industry has likewise recommended and supported the idea of health promotion (Gorill & Monica, 2021). The WHO Health Promoting Hospital movement focuses on four areas, given the range of potential health promotion interventions in hospitals: promoting patient and staff health, transforming the organisation into a health-promoting setting, and promoting community health in the hospital's catchment area (Sitanshu, Gautam & Subitha, 2012). In terms of promoting patient health, recreational facilities in hospital can be regarded as nonmedical interventions are important because they improve patients' general well-being and quality of life, offer chances for social interaction, relaxation, and diversion, and have a positive impact on both the hospital stay and the patients' recovery process (Kumar & Preetha, 2012). Recognizing that the hospital experience can be stressful and isolating, Adam-Castelló, et al., (2023), delved into the impact of hospital leisure intervention programs on patient health. They discovered that leisure interventions conducted during hospital stays can significantly enhance patient well-being. Smith, Jones, and Williams (2021) research revealed that facilities such as exercise rooms, outdoor spaces, and gardens wield a positive influence on patients' emotional and physical health. By providing opportunities for social interaction, and engagement in meaningful activities, hospitals can contribute to improving patient experiences and outcomes during their stays.

Another nonmedical intervention or recreational activities that have gained attention is music; Eseadi and Ngwu (2023) findings underscore the significant impact of music therapy interventions on patients grappling with breast cancer, lung cancer, prostate cancer, and colorectal cancer. The work of Beh-Huan, Chen, Beckstead, and Yang (2017), highlights promising outcomes following a 32-week intervention period, wherein participants engaged in regular music-creation sessions. Music listening might yield positive outcomes by potentially reducing state anxiety and mitigating the physiological stress response, as indicated by parameters such as heart and respiratory rates, as well as blood pressure, among critically ill patients, regardless of their ventilation status (Umbrello, et al., 2019). Hospitals have also increasingly recognized the value of play interventions for children undergoing medical care, studies like; Gillard's (2019) exploration of short-term changes in children following recreational play experiences, as perceived by both caregivers and hospital staff; Gjørde, Hybschmann, and Dybdal (2021) scoping review on hospital play interventions, reveal their multifaceted roles across four clinical contexts: procedural assistance, patient education, treatment facilitation, and adaptation support. These interventions have demonstrated significant potential benefits for patients and their families, particularly in alleviating pain, stress, and anxiety. In another vein, Boulayoune, Matabuena-Gómez-Limón, and Ventura-

Puertos (2020), as well as Sridharan and Sivaramakrishnan (2016), noted the advantages of hospital entertainment for children, highlighting how it will benefit parents indirectly. Play in hospitals serves several essential purpose. For example; it provides children with a sense of normalcy and joy, allows them to momentarily forget about their illness or treatment, helps children express their emotions and fears, and foster a much-needed distraction, generally we can say that play is inherently therapeutic.

Bungay and Hughes (2020) study revealed that participating in group dance sessions provided various physical, social, and emotional benefits for patients in hospital setting in East England. Lee, A-Reum, Hee-Jung, and Park (2021) made a contribution to this topic by revealing a positive correlation between recreation specialization and happiness, shedding light on the significance of focused engagement in leisure pursuits. In a similar vein, Kuan-Ting, Wei-Li, and Yi-Ching (2022) 6-week magic recreation programme effectively reduced depression symptoms in institutionalised older persons with mild depressive symptoms, according to the results. Magic and dance not only offer avenues for entertainment but also serve as effective psychosocial interventions, providing emotional support and fostering social connections among patients. Furthermore Mera, Morales, and Vaca (2018) and Lam, Bik Chow, Cheung, Lee, and Li (2017) focused on addressing anxiety and depression levels in older adults through a physical recreational program. Their research showed a substantial drop in anxiety and depression after programme participation, indicating that physical activity can be a useful intervention for mental instability problems in elderly persons.

A study by Wei, et al., (2020) delves into the potential benefits of Mind–Body Exercises (MBEs), such as Tai Chi and Yoga, as supplementary treatments for individuals with schizophrenia who have low exercise tolerance. Their findings suggest that integrating MBEs into treatment regimens can indeed offer advantages for individuals with schizophrenia, serving as adjunctive therapy. In a separate study, Andreyanna (2020) primary emphasis is placed on the effectiveness of Reiki, in addition to bodily exercises, among a group of 338 volunteers in Ukraine as compared to non-Reikists, the results show that Reikists had higher levels of emotional comfort, lower levels of worry or unhappiness, and greater feelings of optimism, self-confidence, vitality, and energy. Notably, MBEs were found to mitigate some of the risks associated with antipsychotic medications, such as hesitation, retention, and transient leukopenia, thus potentially enhancing patients' quality of life and overall well-being. These research advance our knowledge of the therapeutic benefits of mind–body exercises and alternative therapies in promoting mental health and well-being. Integrating these practices into treatment plans may offer holistic approaches to addressing the complex interplay of physical, emotional, and psychological factors in mental health disorders.

Arts engagement plays a crucial role in building community identities and stability, especially for those dealing with mental health issues, as emphasized by Gallant, et al., (2017). By providing individuals with a platform for self-expression and engagement, arts-based interventions help in mental health recovery. In a parallel exploration, Martin and Ratcliffe (2020) indicated promising outcomes regarding the engagement of individuals with serious mental illnesses in game-based interventions, leading to positive treatment outcomes. Both studies illuminate innovative approaches in supporting mental health recovery and treatment, highlighting the multifaceted role of arts engagement and gaming technologies in promoting holistic well-being and social inclusion for individuals facing mental health challenges. However, the success of serious games and gamification in mental health treatment hinges on crucial factors such as the design, functionality, in order to maximize their therapeutic potential. While these studies discuss the benefit of recreational facilities as a nonmedical intervention in alleviating anxiety, stress, pain, quick recovery, it becomes necessary to shift the study focus to Nigeria hence the hypothesis for this study is formed.

H0: Recreational facilities have no significant effect on patient health promotion in Southwest Nigeria

Methodology

The study area, situated in Southwest Nigeria, encompasses six states: Ekiti, Ondo, Osun, Ogun, Oyo, and Lagos. Within this region, numerous hospitals operate, including federal, state, and privately owned institutions offering tertiary and secondary healthcare services. The research employed a descriptive survey research design and utilized multi-stage cluster sampling to select six hospitals for the study. In the first stage, using stratified sampling technique, states were categorized based on the presence of teaching hospitals affiliated with universities. Second stage employed purposive sampling technique where within each state, hospitals were categorized according to ownership (federal, state, or private) and affiliation with a university. This approach aimed to ensure representation from both public and private sectors. Additionally, selected hospitals were required to be affiliated with a university which are often equipped with diverse departments and specialties and play a crucial role in medical education and training. At the end, two states Ekiti and Oyo were selected with three hospitals selected from each which are: ABUAD Multisystem hospital (AMSH), Ekiti State University Teaching Hospital (EKSUTH), Federal Teaching Hospital IdoEkiti (FEDIDO), Bowen University Teaching Hospital (BUTH), LadokeAkintola University of Technology Teaching Hospital (LAUTECH) and University College Hospitals Ibadan (UCH). The total population of the study is 3914 healthcare professionals which is made up of the: Medical doctors, Nurses, Radiographers, Medical Lab Scientists, Physiotherapist and Pharmacists, this

was obtained from the administrative unit at each hospital. Because of the large

$$n = \frac{N}{1 + N(e)^2}$$

population, Taro Yamane formula was applied,

N = the population size

n = the sample size

e = the acceptable sampling error (0.05)

n= 3914/ 1+ 3914(0.05)

n= 3914/1+ (3914 x 0.0025)

n= 3914/1 + 9.785

n= 3914/10.785

n= 362

Hence the sample size for the study is 362. A self-structured questionnaire and a key informant interview (KII) was employed for data collection. Snowball sampling technique was used in the distribution of questionnaires in hospitals because of the variant of populations in the hospitals this will help in getting the right participants, hence the research assistant introduced the researcher to the right population. For the collection of data from each stratum, the researcher, proportionately divide the sample size according to the proportionality formula, (Total number of Strata/ Total Population x Sample Size). For the key informant interview, purposive sampling technique was used in selecting key participants for interview, this method was used because it will help in selecting appropriate participant that will provide adequate information to the study. In this case the position of a director is one of the criteria for the selection hence mostly three directors each from the Ministry of Health and Ministry of Tourism in Ekiti and Oyo states was selected because of their experience and expertise. All interview sessions were conducted in a face-to-face manner in the Ministries of health and Tourism at Ekiti and Oyo state. Interviews were tape-recorded and transcribed. At the end of the three hundred and sixty-two questionnaires (362) distributed within a period of five months, with the help of seven research assistance, only three hundred and fifty-two (352) copies were completely filled and returned. The research instruments undergo validity and reliability tests. For validity the instruments was subjected to exploratory factor analysis using Kasier-Meyer-Olkin (KMO). A KMO of 0.71 was obtained which is above the benchmark of 0.60 indicating that the items are adequate. The test of sphericity was statistically significant as the p value stands at 0.000 which support the factorability of the correlation matrix. While for reliability tests, thirty five healthcare professionals were randomly selected from Obafemi Awolowo University Teaching Hospital Ife (OAUTH). Hence with a Cronbah's Alpha $\alpha = 0.877$ and

considering the rule of thumb, it is observed that there is a good internal consistency of the research instrument. Data elicited for the study were analysed with the use of descriptive and inferential statistics, and thematic method was use in analyzing the interview. Ethical approvals was gotten from the six hospitals under study with their ethical numbers as follow; (BUTH/REC-818; LTH/OGB/EC/2023/396; UI/EC/23/0480; EKSUTH/A67/2023/07/003; ERC/2023/07/06/1006B and AMSH/REC/OCI/180) and research consent was gotten from the participants. There was no risk (s) involved.

Results and Discussion

Table 1 Socio-Demographic Variables

Variables	Frequency	Percentage	Mean ± SD
Gender			
Male	174	49.4	1.51 ± 0.501
Female	178	50.6	
Age (Years)			
20 – 29			2.03 ± 0.872
30 – 39	110	31.3	
40 – 49	142	40.3	
50 – 59	81	23.0	
	19	5.4	
Marital Status			
Single	150	42.6	1.60 ± 0.540
Married	193	54.8	
Divorced	9	2.6	
Religion			
Christianity	289	82.1	1.21 ± 0.471
Islam	53	15.1	
Others	10	2.8	
Educational Qualification			
ND	19	5.4	2.06 ± 0.439
HND/B.Sc./MBBS/PHARM	298	84.7	
PGD/M.Sc.	33	9.4	
Ph.D.	2	0.6	
Employment Duration			
1 – 5 Years			1.93 ± 0.966
6 – 10 Years	152	43.2	
11 – 15 Years	98	27.8	
16 – 20 Years	77	21.9	
	25	7.1	

*Profession			
Doctor	74	21.0	3.15 ± 1.690
Nurse	84	23.9	
Radiographer	42	11.9	
Pharmacist	61	17.3	
Medical Lab. Scientist			
Physiotherapy	50	14.2	
	41	11.6	
*Hospital Name			
AMSH	21	6.0	4.50 ± 1.600
BUTH	26	7.4	
EKSUTH	49	13.9	
FETHI	68	19.3	
LAUTECH	36	10.2	
UCH	152	43.2	

Source: Fieldwork 2023

The above Table 1 reveals the analysis of the respondents' socio-demographic variables with 178(50.6%) females over 174(49.4%) as majority, 142(40.3%) are within 30 – 39 years, 110(31.3%) within 20 – 29 years, 81(23.0%) within 40 – 49 Years and minority 19(5.4%) within 50 – 59 Years of age. Majority 193(54.6%) respondents were married, 150(42.6%) were single, while only 9(2.6%) were divorced. Christians were in the majority, 289(82.1%), 53(15.1%) were Muslims and other religions constitute just 10(2.8%). Almost all 298(84.7%) had their first degree HND/ B.Sc./MBBS, 33(9.4%) with PGD/M.Sc. 19(5.4%) with ND, and minority 2(.06%) has a doctorate degree. Employment duration has majority 152(43.2%) has spent 1 – 5 years, 98(27.8%) 6 – 10 years, 77(21.9%) 11 – 15 years while minority 25(7.1%) has 16 – 20 years working experience.

Table 2: Availability of Recreational Facilities

Recreational Facilities	Frequency	Percentage	Mean ± SD	Ranking
Crosswords/puzzle games				
Yes	125	35.5	0.36 ±	Available
No	227	64.5	0.479	
Card games				
Yes	139	39.5	0.39 ±	Available
No	213	60.5	0.490	
Reading Rooms				
Yes	241	68.5	0.68 ±	Available

No	111	31.5	0.465	
Music Session: Active/ Passive	126	35.8	0.36	± Available
Yes	226	64.2	0.480	
No				
Gym facilities				
Yes	195	55.4	0.55	± Available
No	157	44.6	0.498	
Arts/ crafts				
Yes	81	23.0	0.23	± NA
No	271	77.0	0.422	
Gardening				
Yes	78	22.2	0.22	± NA
No	274	77.8	0.416	
Table Tennis				
Yes	148	42.0	0.42	± Available
No	204	58.0	0.494	
Bead making/ crocheting				
Yes	68	19.3	0.19	± NA
No	284	80.7	0.395	
Play for children				
Yes	145	41.2	0.41	± Available
No	207	58.8	0.493	
Television				
Yes	260	73.9	0.74	± Available
No	92	26.1	0.440	
Electronic games				
Yes	95	27.0	0.27	± NA
No	257	73.0	0.445	
Chess game				
Yes	106	30.1	0.30	± Available
No	246	69.9	0.459	
Ludo game				
Yes	119	33.8	0.34	± Available
No	233	66.2	0.474	

Scrabble				
Yes	118	33.5	0.34	± Available
No	234	66.5	0.473	
Religious facility				
Yes	228	64.8	0.65	± Available
No	124	35.2	0.478	
Criterion Mean: 3.0				
Grand Mean: 0.40				

Note: Fieldwork 2023.

Decision making: If the grand means is higher than the criterion mean that implies recreational facilities are available and if the criterion mean is higher than the grand mean then the facilities are rarely available. Table 4.2.1 show the different types of recreational facilities that are available or not available in Southwest hospitals. Using the criterion mean of (0.30) and grand mean of (0.40) in decision making, the table show that facilities like; television, reading room, religions facility, gym facilities, table tennis, play for children, card games, music session which can either be passive or active, crossword/ puzzle games, ludo games, scrabble, chess games are facilities available across the six hospitals use for this study. Meanwhile, electronic games, gardens, bead making/crocheting and arts/crafts recreational facilities are rarely available in the hospitals use for the study.

Table 3: Responses on the Effect of recreational facilities for health promotion in hospitals

ITEMS		SD (%)	D (%)	N (%)	A (%)	SA (%)	Mea n	SD
1	Access to recreational facilities positively impacts patients' mental health.	7 (2.0)	3 (8)	21 (5.9)	163 (46.2)	158 (44.8)	4.31	7.91
2	Recreational facilities can serve as a positive distraction from medical treatments and procedures.	20 (5.7)	44 (12.5)	20 (5.7)	166 (47.0)	102 (28.9)	3.81	1.152
3	Recreational facilities prevent patient boredom during hospitalisation.	1 (0.3)	6 (1.7)	11 (2.8)	190 (53.8)	144 (41.1)	4.34	.647
4	Recreational facilities in hospitals promote a sense of community among patients.	2 (0.6)	2 (0.6)	14 (3.1)	200 (56.7)	134 (38.8)	4.33	.622

.5	The presence of recreational facilities positively influences patients' moods and emotions.	4 (1.1)	2 (0.6)	10 (2.8)	200 (56.7)	136 (38.5)	4.31	.666
6	Recreational facilities in hospitals encourage patients to engage in physical activity.	4 (1.1)	1 (0.3)	13 (3.7)	189 (53.5)	145 (41.1)	4.34	.672
7	Recreational facilities in hospitals can reduce stress and anxiety levels among patients.	5 (0.8)	2 (2.5)	8 (9.3)	199 (56.4)	133 (30.6)	4.14	.750
8	Patients will recover faster when they have access to recreational facilities.	3 (1.4)	9 (0.6)	33 (2.3)	199 (56.4)	108 (39.1)	4.32	.684
9	Patients will adhere to treatment plans when recreational facilities are available.	7 (2.0)	22 (6.2)	66 (18.7)	159 (45.0)	98 (27.8)	3.91	.943
10	Patients find it easier to cope with their medical conditions when they have access to recreational amenities in hospitals.	3 (0.8)	18 (5.1)	40 (11.3)	190 (53.8)	101 (28.6)	4.05	.826
Criterion Mean: 0.30								
Grand mean: 4.21								

Source: Fieldwork 2023

The table 4.5 shows the responses of the participants on the effect of recreational facilities for health promotion in hospitals which was assessed with ten items using the Likert scale. Decision making: Recreational facilities have an effect on health promotion if the grand mean is higher than the criteria mean; on the other hand, if the criterion mean is higher than the grand mean, their effect is low. A value mean of 4.31, 3.81, 4.34, 4.33, 4.31, 4.34, 4.14, 4.32, 3.91 and 4.05 above the criterion mean 3.0 which is decisive value is a pointer that all items meets the decisive benchmark. This imply that recreational facilities have a positive effect on patient health promotion in Southwest Nigeria.

For the key informant interview using thematic analysis the sub themes are discussed as follows:

Theme 1: Departmentalization

The interview revealed the opinion of the participants. Below are their responses; “..... recreational facilities should be provided base on department, facilities provided for mental wards can’t be given to surgery units” (Participant 1, Ministry of Health).

“ it depend on the area of needs and should be unit guided, for example Orthopedic can have facilities to aid movement, mental health games for mental health, cardiovascular diseases facilities for exercise” (Participant 4 and 5, Ministry of Health).

“..... You should put recreational facilities base on the wards but most importantly it should not be strenuous” (Participant 2, Ministry of Health)

“..... This facilities are needed for over stay patients and the provision or availability should depend on the ward” (Participant 3, Ministry of Health).

Theme 2: Fast recuperation

As revealed in the interview, the participants opined that presence of recreational facilities can be associated with fast recuperation of health, some of their responses were shown below;

“..... It helps in fast recovery thereby saving cost for the patients. Take for example the presence of this facilities can make a patient that is meant to stay in hospital for long, to get well soon, so I will say it aid in recovery and add faster time in recovery ” (Participant 1, Ministry of Health)

“..... recreational facilities can help the recuperation of our patients for example a patient lying on a bed daily basis but if this facilities are provided it will make the patient more lively by participating in it hence fast recovery” (Participant 2, Ministry of Health).

“.....speaking of lying down, recreational facilities can help the recuperation of sickle cell patients, cancer patients and so on by making them more lively when they participate in this facilities hence aiding to fast recovery” (Participant 4, Ministry of Health).

Theme 3: Mental and Emotional Stability

As revealed in the interview, the participants opined that presence of recreational facilities aids the mental and emotional stability of patients, their responses were shown below;

“.....I also advocate these facilities for mental health patients and people having psychotic disorder it will help increase their rise in mood” (Participant 4, Ministry of Health)

“..... It helps the mental status by decreasing depression and anxiety in patients with mental issues” (Participant 2, Ministry of Health)

Participant 3, and 1 in the Ministry of Health, agreed that “..... It is very important in rehabilitation areas or mental ward, it will help compliment their healing and help them physically”.

“..... It will help aid recovery and boost emotional stability” (Participant 5, Ministry of Health)

Theme 4: Lessen of severity of diseases

As transcribed from the interview held, some of the participants opined that there is lessen of severity of diseases when there is presence of recreational facilities in the healthcare settings, some of the responses are presented below:

“.....it would help to lessen the severity of diseases, those who have what we call the syndrome X, which have to do with combination of diseases associated metabolic syndrome, diabetes, hypertension, other kinds of Associated Diseases such as obesity, will gain a lot for this facilities.”It also helps in the drop of blood pressure. (Participant 4, Ministry of Health).

“.....Well take for instance orthopedic patients who have encountered some shocks, this facilities when provided will help to lessen that like helping them in their traumatic survival by providing strength and hope to them. (Participant 1, Ministry of Health).

Test of Hypothesis

H0: Recreational facilities have no significant effect on patient health promotion in Southwest Nigeria

Table 4: Model summary on Effect of Recreational facilities and Patient Health Promotion

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.672 _a	.451	.450	.320	.451	287.642	1	350	.000

a. Predictors: (Constant), Availability of Recreational Facilities

This model summary in table 4 provides information about the overall fit and significance of the regression model, which includes the predictor variable "Availability of Recreational Facilities and patient Health Promotion. The table shows the analysis of the hypothesis which was analyzed using linear regression. Confidence level interval of 95% was used and the model summary show a good fit of F; (1,350) = 287.642, the large F Change value of 287.642 suggests that the addition of Availability of Recreational Facilities significantly improves the model fit. Adj. R²=0.450, R²=0.451 and a P value of <.001 which is less than 0.05. According to the analysis, it have a calculated value of (β=0.672, t=16.960 and P<.001).

Table 5: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.510	1	29.510	287.642	.000 ^b
	Residual	35.907	350	.103		
	Total	65.417	351			

a. Dependent Variable: Patient Health Promotion

b. Predictors: (Constant), Availability of Recreational Facilities

Base on the ANOVA table 5 the model includes one predictor variable, which is the Availability of Recreational Facilities, and it is statistically significant ($P < .001$). The regression model accounts for a significant amount of variance in the dependent variable, Patient Health Promotion, as indicated by the high F-value (287.642) and the associated significance level ($P < .001$). Overall, this suggests that the Availability of Recreational Facilities predictor significantly contributes to explaining the variance in Patient Health Promotion.

Table 6: Coefficients for Test of Hypothesis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error				Beta	Lower Bound
1	(Constant)	3.160	.063		50.362	.000	3.037	3.284
	Availability of Recreational Facilities	2.405	.142	.672	16.960	.000	2.126	2.684

a. Dependent Variable: Patient Health Promotion

The regression analysis in table 6 suggests that both the constant term and the Availability of Recreational Facilities have significant effects on Patient Health Promotion. Additionally, for each unit increase in the availability of recreational facilities, the Patient Health Promotion is expected to increase by approximately 2.405 units. The standardized coefficient (Beta) of 0.672 indicates that the availability of recreational facilities has a relatively strong effect on Patient Health Promotion compared to other variables. The statistical significance of the coefficient is supported by the p-value (< 0.001). In summary, the table indicates that the availability of recreational facilities significantly contributes to explaining the

variance in the dependent variable. The strong positive correlation suggests that areas with greater availability of recreational facilities tend to have higher values of the dependent variable hence the null hypothesis is rejected.

Discussion

The findings show that majority strongly agree that access to recreational facilities positively impacts patients' mental health. This is in line with the study by Jagannathan, et al., (2021), which focused on the need and benefits of general recreation activities for persons with Mental Health Disorders (MHD). The study shows that recreation is an important need of clients with MHDs as it helps them to be engaged, be happy and provides a platform for socialization; irrespective of whether it is conducted online or offline. The healthcare professionals noted that providing games in mental health ward help them in keeping alert and rise in mood. Recreational facilities such as exercise rooms, outdoor spaces, gardens can have a positive impact on the physical and mental health of hospitalised patients (Smith, Jones & Williams, 2021). Some of the participants "advocate these facilities for mental health patients and people having psychotic disorder because it will help increase their rise in mood" (Participant 4, KII). Others noted that it helps the mental status by decreasing depression and anxiety in patients with mental issues" (Participant 2, KII). Participant 3, and 1 in the Ministry of Health, agreed that "It is very important in rehabilitation areas or mental ward, because it will help compliment their healing and help them physically" and also it will help aid recovery and boost emotional stability" (Participant 5, KII). This is consistent with Maras, et al., (2015) study which noted that recreational activities are a powerful advocacy tool for mental health. Participants' identification of psychological advantages aligns with policies that support patient-centered treatment and emphasise the significance of treating mental health in addition to physical health (Park, et al., 2013).

The study findings show that recreational facilities in hospitals can reduce stress and anxiety levels among patients. Chen, et al., (2022), also agree to this that recreational facilities interventions reduced anxiety and depression symptoms. The presence of recreational facilities can also positively influence patients' moods and emotions. This is shown in the response of majority. In line with this, recreational facilities like music therapy has shown to be significant in treating depression and anxiety disorders in patients especially those with cancer (Eseadi & Ngwu 2023) This is why it is important to have different types of recreational facilities in hospitals for health promotion. Recreational facilities prevent patient boredom during hospitalisation as shown in the findings. This is consistent with Lorraine, et al., (2019) that a quality improvement (QI) of a recreational space is beneficial to the overall patient experience during their lengthy stay in the hospital and enhanced their stay.

Meanwhile study by Smith, Jones and Williams (2021) also show that availability of recreational facilities can equally improve patient satisfaction, reduce the length of hospital stay and even lead to better outcomes.

Healthcare providers noted that patients will recover faster when they have access to recreational facilities as seen in the result. The participants interviewed opined that presence of recreational facilities can be associated with fast recuperation of health, "It helps in fast recovery thereby saving cost for the patients. Take for example the presence of this facilities can make a patient that is meant to stay in hospital for long, to get well soon, so I will say it aid in recovery and add faster time in recovery " (Participant 1, KII). "Recreational facilities can help the recuperation of our patients for example a patient lying on a bed daily basis but if this facilities are provided it will make the patient more lively by participating in it hence fast recovery" (Participant 2, KII). "Speaking of lying down, recreational facilities can help the recuperation of sickle cell patients, cancer patients and so on by making them more lively when they participate in this facilities hence aiding to fast recovery" (Participant 4, KII). To understand the role of recreation in shaping the reality of hospitalized patients, Pinto and Gomes (2013), results show that leisure activities can improve the health status of hospitalised patients which is consistent with the findings of the study. The idea that recreational facilities might hasten healing by reducing anxiety and sadness is consistent with the increasing amount of research highlighting the psychological advantages of leisure pursuits (Smith & Forrester, 2021). Provision of this facilities result in successful discharges, short length of stay, increase hope and confidence, facilitate healing (Pinto, et al., 2017; Blinderman& Billings, 2015). The value of these facilities in boosting patient happiness and supplementing continuing care aligns with patient-centered care strategies supported by writers like Bartels, Gill and Naslund, (2015).

Some of the participants opined that there is lessen of severity of diseases when there is presence of recreational facilities in the healthcare settings, "it would help to lessen the severity of diseases, those who have what we call the syndrome X, which have to do with combination of diseases associated metabolic syndrome, diabetes, hypertension, other kinds of Associated Diseases such as obesity, will gain a lot for this facilities."It also helps in the drop of blood pressure. (Participant 4, KII). "Well take for instance orthopedic patients who have encountered some shocks, this facilities when provided will help to lessen that like helping them in their traumatic survival by providing strength and hope to them. (Participant 1, KII). Regular physical exercise has been linked to significant health advantages, such as lowered risks of metabolic syndrome, diabetes, hypertension, and obesity (Li, et al., 2020; Tasnim, et al., 2021). The participants' emphasis on weight loss as a possible result is consistent with research showing how exercise helps control weight and avoid related medical disorders ((Tasnim, et al., 2021).

In the process of participating either individually or group session in recreational activities, respondents agree that it can serve as a positive distraction from medical treatments and procedures. This is supported in the study by Bungay and Hughes (2020) with findings showing an emotional impact through taking part in dance; happiness from engaging with the group and the release of pent up emotions through the triggering of memories by the music and conversations within the group. It can also be said that this group participation can promote a sense of community among patients which participants noted that patients will also adhere to treatment plans when recreational facilities are available. Patients find it easier to cope with their medical conditions when they have access to recreational amenities in hospitals. All these items were agreed in majority by the respondents as part of the effect of recreational facilities in health promotion. Gjørde, Hybschmann and Dybdal (2021) study show that recreational interventions served different roles within four clinical contexts: a) procedures and diagnostic tests, b) patient education, c) treatment and recovery and d) adaptation. This is in support with findings of this research that hospital recreational interventions have a significant potential benefit for patient, family health and had positive reported effects on pain, stress, and anxiety.

The hypothesis test also rejected the null hypothesis and the alternate hypothesis is accepted due to the strong effect of presence of recreational facilities, as evidenced by the significance level ($\beta=0.672$, $t=7.717$ and $P<.001$) and the correlation coefficient of 0.005. Additionally, for each unit increase in the availability of recreational facilities, the health promotion outcome is expected to increase by approximately 2.405 units. This indicates a strong positive effect between the availability of recreational facilities and health promotion. This finding implies that recreational facilities' presence have a significant effect on health promotion in of Southwest Nigerian hospitals. This result's relevance is consistent with a larger body of literature that highlights the beneficial effect between recreational facilities and the promotion of health. Research conducted by Lorraine, et al., (2019) has repeatedly demonstrated that hospital patients' increased physical activity, reduced stress levels, and general well-being are all positively impacted by the presence of recreational amenities. The results are consistent with health promotion theories that stress the need of incorporating physical exercise into everyday living to improve health outcomes (Zhou, et al., 2016). The consistency of the results when also compared to previous research strengthens the general consensus that offering recreational facilities in hospital settings is essential to promoting health. A significant, positive relationship between the perceived health outcomes of recreation and happiness was found in individuals participating in recreational activities in the study by Yüzgenç, Cin and Onur (2023) which support the findings of this study. This is also in consistent with Adam-Castelló, et al., (2023) findings that

leisure interventions carried out during leisure time positively impact and promote the wellbeing of hospitalised patients. The result is also in agreement with the comfort theory which is specific and are targeted to addressing the anxiety and pain of patient so that they can be able to deal with the care they need and aid quick recovery, reduce the length of stay in hospital and result in successful discharge (Kolcaba, et al., 2004). The incorporation of recreational amenities into hospital environments aligns with optimal methodologies that promote a comprehensive approach to patient welfare (World Health Organization & WHO, 2010).

Recreational activities during the hospital stay can revolve around music, interactions with the hospital clown, art activities, the use of electronic tablets and various workshops, all this combined help in health promotion of patients. Audio tapes compact disk, guided imagery and music relaxation was used as an intervention by Apostolo and Kolcaba (2009) in hospitalised psychiatric patients diagnosed with mood disorders. Holistic comfort interventions are meant to bring about desirable whole-person effects, such as recreational facilities, music therapy, guided imagery, and when this are provided for patients, they feel that they are being cared for properly, hence they will be emotionally and mentally better, which will aid in their recovery (Coelho, et al., 2018). The findings of this study show that this recreational facilities interventions decreased patient depression, anxiety, stress and increase personal perception of comfort which aid in patient health promotion within the hospital.

Conclusion

The research's conclusion presents a picture of the Southwest area of Nigeria's recreational facilities and healthcare system. It arrived at the conclusion that the use of recreational facilities promote patients health in Southwest Nigeria. The study underscores the significance of nonmedical intervention/ recreational facilities within the health institution and their consequential influence on patient health. Furthermore, the study also establishes a positive relationship between the adoption of recreational facilities in health institution and patient health promotion within the Southwest Nigeria. Implying that hospitals that prioritize nonmedical facilities, help in creating an environment that positively impact patient mental health, reduce stress and anxiety levels among patients, prevent boredom, influences patients emotions and aid quick recovery are going to attract patients who value these initiatives. All things considered, this study fills in a great deal of knowledge gaps by offering insights that might guide theory and practice. Policymakers, healthcare administrators, and academics who are interested in improving healthcare delivery, and improving the general well-being of people in the South West area of Nigeria should take note of the results.

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