



EFFECT OF HOME MODIFICATION ON QUALITY OF LIFE OF PEOPLE WITH PHYSICAL DISABILITIES IN MUBI

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Received: December 13, 2021 Accepted: February 20, 2022

Abstract:

This paper assesses the effect of home Modification on Quality of life of people with physical disabilities that affect mobility in Mubi, North Eastern Nigeria. A total of 50 people with physical disabilities that effect mobility, comprising of 25 adults in Mubi North and 25 adults in Mubi South local government areas of Adamawa state were randomly selected. The base line life satisfaction score was calculated before home modifications relating to; entrance to the buildings, access to goods and services, usability of rest rooms, were executed for people in Mubi North, while people in Mubi South waited for their turn. Life satisfaction questionnaire was administered one on one to the respondents before the execution of home modifications and after three months of the modifications. Findings from the study indicates that the quality of life was significantly enhanced for the participants in Mubi North after home modification with mean life satisfaction score 4.41 ($p=0.001$), as compared to the waiting participants in Mubi south with life satisfaction score 2.49 ($p=0.119$). The study recommends that home modification should be officially recognized and regulated as an approach where the users are in total control of the home-making, and legal framework that controls and requires the professionals in the building industry to design and build homes that are disability-friendly be implemented.

Keywords: Home Modification, Quality of life, Housing Satisfaction.

Introduction

The design and construction of homes and neighbourhoods impact the quality of life, abilities, functionality and independence of a population, especially people with disabilities (Oswalde et al, 2007, Scott, et al, 2007, Camemolla, et al 2019). This awareness has generated an increasing interest in the relationship between housing and disability. According to Centre for Housing Research Aotearoa New Zealand (CHRANZ, 2007), this interest is fueled by three factors. Firstly, a considerable demographic change is occurring in which the populations of many societies are ageing. Secondly, increasing disability prevalence, caused

by ageing and advances in medical sciences which has enhanced chances of survival among victims of disabling injuries, conditions, or sickness. Thirdly, disability has become an international human right agenda and the rights to be involved in and actively participate in the communities in which one lives is being emphasized. The influence of the human right model of disability which has shifted the focus of disability and limitation away from the individual to the environment (WHO, 2001; Zola, 1997); it has contributed to an improved understanding of changing environment to help people live at home and maintain family and community ties

FUW Trends in Science & Technology Journal, www.ftstjournal.com

e-ISSN: 24085162; p-ISSN: 20485170; April, 2022: Vol. 7 No. 1 pp. 820 - 825.

irrespective of their physical ability (Faulkner and Benneth, 2002, Bronwyn et al 2008). However, the particular effect of environmental and structural modifications to the home, including entrance to buildings, access to services and rest rooms, to quality of life of people with disability that affect mobility remains scarcely documented. This is the research gap this study intends to address.

Modification is the “act of changing, altering adjusting, adapting, extending and remodelling to meet predetermined intentions” (Jusan, 2007b); a demonstration of the will to be in charge of the environment and the outcome of an attempt to make it congruent with life patterns (Lang 1987); alteration of the structural features of the home environment to make tasks easier, increase safety, and encourage self-supported living (Fange and Iwarsson, 2005); rearrangement of components and sub components within and around the home environment, to reduce difficulty and encourage independent living (Zhou, 2018). Generally, the fundamental purpose of housing modification is to encourage independence, improve the quality of life of people with disabilities and accessibility to housing. (Russell, 2016, Okoye, 2017). Findings from previous studies suggest that home modifications has reduced dependence in performing household activities for people with physical disability that effect mobility (Connell et al, 1993), and improved functional ability for daily living for the aged, people with physical and mental disabilities (Giltin et al., 1999; Mann et

al., 1999; Stark, 2004; Trickey et al, 1993), and lessened the need for active caregiving (Giltin et al., 2001; Lanspery et al, 1997), enhanced the quality of life in wheelchair user paraplegic population (Ahmad et al. 2013).

Quality of life is “an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns” (WHO, n.d.). It requires accessing several life experiences associated with the individual and his environment (Allen, 1991). These life experiences are in the form of personal, neighbourhood and community satisfaction, in which each is effected by a number of features (Bramston et al, 2002 Smith, 2011). Individual satisfaction with each feature correlates with their quality of life.

Objectives and Methodology

Objectives

The aim of this study is to assess the effect of home modification on quality of life of people with physical disabilities that affect mobility in Mubi Nigeria. The objectives are:

- i. To examine the relationship between quality of life of people with physical disabilities that affect mobility before and after home modifications.
- ii. To identify the Factors Determining Overall quality of life of people with physical disabilities that affect mobility after home modifications

- iii. To recommend suggestions to improve the quality of life of people with physical disabilities that affect mobility at home.

Research Questions

The research questions were:

- i. Is there a difference in quality of life of people with physical disabilities that affect mobility after receiving home modification? And, if so,
- ii. What factors determine the Overall quality of life of people with physical disabilities that affect mobility after home modification?
- iii. How can the quality of life of people with physical disabilities that affect mobility be improved at home?

Methodology

The study sample was recruited from the monitoring and evaluation team of none governmental organization (NGO) providing home modification for people with physical disabilities due to the insurgency in Mubi, North Eastern Nigeria. A total of 50 people with physical disabilities that affect mobility comprising of 25 adults in Mubi North and 25 adults in Mubi South local government areas of Adamawa state were randomly selected. The base line life satisfaction score was calculated before home modifications relating to; entrance to the buildings, access to goods and services, usability of rest rooms, were implemented for people in Mubi North, while people in Mubi South waited for their turn. An abridged version of the

questionnaire for the assessment of quality of life in spinal cord injury patients as used by Ahmad et al, (2013), comprising of seven variables; life as whole, occupation, finance, leisure, contact with friend and relatives, ability to manage self-care, and family life was used as the measurement tool. Each item on the life satisfaction questionnaire is measured on a scale ranging from “1” = very dissatisfied, “2”=dissatisfied, “3”=slightly satisfied, “4”=satisfied and “5”=very satisfied. The overall satisfaction was analyzed based on a mean score of 3.00 on a five point scale as positive indication of satisfaction, and values below 3.00 indicating dissatisfaction. If the mean response is below 1.50, this indicates that the respondents are “Very Dissatisfied”; between 1.50 and 2.49, this indicates that the respondents are “Dissatisfied”; Between 2.50 and 3.49, this indicates that the respondents are “Slightly Satisfied”; Between 3.50 and 4.49, this indicates that the respondents are “Satisfied”; above or equal to 4.50, this indicates that the respondents are “Very Satisfied”. The questionnaire was administered one on one to the respondents before the execution of home modifications and after three months of the modifications. Analysis of the data was done using descriptive statistics and Analysis of Variance (ANOVA) in SPSS version 21.

Results and Discussion

The quality of life was significantly enhanced in Mubi North after home modification with mean life satisfaction score 4.41 ($p=0.001$), as

compared to Mubi South where residents are still expecting home modifications, with life satisfaction score 2.49 ($p=0.119$). Details are shown in Table 1.

Table 1: Comparison of Mean, SD and p-value Variable of life satisfaction Questionnaire

Variables of LiSAT Questionnaire	Mubi South group n= 25			Mubi North group n =25		
	Mean	SD	Remark	Mean	SD	Remark
Life as whole	1.77	1.093	DS	3.30	0.692	SS
Occupation	1.17	0.678	VD	3.17	1.360	SS
Finance	1.40	0.786	VD	3.25	1.179	SS
Leisure	1.98	1.548	DS	3.81	1.076	S
Contact with friend and relative	1.18	0.446	VD	3.20	1.582	SS
Ability to manage self-care	2.41	1.679	DS	3.99	0.601	S
Family life	4.50	0.875	VS	4.70	0.625	VS
Total	2.49	1.680	DS	4.41	1.028	S
F-value	58.100			26.989		
P-Value	0.119			<0.001*		

Factors determining the Overall quality of life after home modification.

An analysis of items of quality of life that have very strong correlation coefficients ($\rho>0.700$) with home modifications shows that all variables, namely: life as whole, occupation, finance, leisure, contact with friend and relatives, ability

to manage self-care, family life has positive correlation with the home modifications however the impact of modifications on contact with friend and relatives, ($\rho=0.721$) and ability to manage self-care ($\rho=r0.739$), significantly impacted on Overall Quality of Life of people with disability that affect mobility after home

modification. This shows that the overall quality of life levels are determined by enhancing satisfaction on those factors. This will ensure high quality of life for people with physical disabilities that affect mobility in Mubi particularly and Nigeria in general.

Conclusion

The quality of life was significantly enhanced in Mubi North after home modification with mean life satisfaction score 4.41 (P=0.001), as compared to the Mubi South, with life satisfaction score 2.49 (P=0.119). The home modification has positive effect in the enhancement of quality of life of people with disabilities that affect mobility in Mubi north local government area. The study recommends that home modification should be officially recognized and regulated as an approach where the users are in total control of the home-making, and legal framework that controls and requires the professionals in the building industry to design and build homes that are disability-friendly be implemented.

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