PATTERNS AND DETERMINANTS OF RECREATIONAL BEHAVIOUR IN PORT HARCOURT, RIVERS STATE, NIGERIA

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Abstract
By surveying a 5% probability sample of residential clusters, yielding 369 residents in Port Harcourt, Nigeria, this study has ascertained actual recreational behaviour of the residents; determinants of recreational behaviour; perceived adequacy/inadequacy of government provision of recreational facilities; and residents' suggestions for improvement of recreational facilities. It was found, amongst others, that weekly participation in passive (outdoor) recreation averaged 3.7 hours and 2.5 hours for females and males, respectively; the corresponding figures for passive (indoor) recreation were 35.2 hours and 43.9 hours. For active (outdoor) recreation males and females averaged 8.9 hours and 5.3 hours, respectively. The corresponding figures for active (indoor) recreation were 5.3 hours and 6.2 hours. Of 5 personality variables, income was the most potent in explaining recreational behaviour. About one half and 43.3% of residents considered government-provided indoor and outdoor recreational facilities inadequate, respectively, demonstrating the need for government to play more active roles in (i) providing recreational facilities; and (ii) encouraging recreational participation, considering its well-known benefits.
Keywords: Leisure Time, Recreation, Participation, Recreational Demand, Multiple Classification Analysis.

1. Introduction

Recreation has been defined as "any pursuit engaged upon during leisure time other than pursuits to which people are normally highly committed" (See Table 1) (Roberts, 1974). Leisure time is "the time

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available to the individual when the disciplines of work, sleep and other basic needs have been met" (Roberts, 1974).

Recreation may be active or passive, indoor or outdoor (Lawson and Baud-Bovy, 1977); activities include: (i) those taking place indoors and around the house, e.g. listening to music, reading, gardening and watching television; (ii) activities with a high social content, e.g. entertaining people, eating out and visiting bars; (iii) cultural and artistic pursuits, e.g. visiting arts galleries, exhibitions, museums, theatres; anything that will increase or improve cultural awareness; (iv) active pursuit of sports, jogging, playing, tennis, badminton; and informal outdoor activities, e.g. picnicking, sight-seeing, driving for pleasure, etc. (Lawson and Baud-Bovy, 1977).

TABLE 1: USE OF TIME

S/No.	Activity Types	Fully Committed *(Essential)*	Partly committed *(Optional)*	
			Highly Committed	Leisure
A	Sleeping	Essential Sleep		Relaxing
B	Personal Care and Exercise	Health and Hygiene		Sport, Active Play
C	Eating	Eating		Dining Out, Drinking
D	Shopping	*Essential Shopping	Optional Shopping	
E	Work	*Primary work	Overtime, Secondary Work	
F	Housework	*Essential Housework, Cooking	House Repairs, Car Maintenance	Do-it-Yourself Gardening
G	Education	*Schooling	Further Education, Homework	
H	Culture and Communication (non-travel)			Television/radio, Reading Cinema/theatre, Hobbies, Passive Play
J	Social and institutional activities		Child-raising, Religion, Politics	Talking, Parties, Dancing
K	Travel	Travel to Work/School		Walking. Driving for Pleasure

* Not essential during a holiday period. After Maw (1969)

Attention began to be seriously paid to recreation by environmental planners as from the mid 1950s onwards (Bucher and Bucher, 1974). Recreation planning has since been established as one of the functional specialisations of environmental planning and management.

2. Salient Issues in Recreation Research

The key issues in recreation research centre on demand and supply. Both public and private agencies provide and manage recreational facilities. Whatever is their motive –- profit making or otherwise -- they must concern themselves with *demand* for their services. Demand in the recreational sense refers to "the number of persons (or units of participation) requiring to take part in a particular recreational activity and hence is manifested as a demand for facilities" (Roberts, 1974).

There are several components of "existing demand" either for recreation as a whole or for a particular activity (Roberts, 1974). These consist of: (a) "effective demand", which is present participation; (b) "latent demand", which comprises "deferred demand" (those who would like to participate and have the means and time to do so but are unable to because of the lack of recreation facilities or ignorance of the existence of such facilities), and (c) "potential demand" (those without the means or time to participate, but who could be converted to effective demand at a later date if their socio-economic circumstances changed); and, finally, (d) "no demand" – the old, the sick, the uninterested and so on.

For planning purposes, the level of potential effective demand is important. On the supply side, emphasis (especially on the side of public policy-making) has hitherto been on present and future resources to meet demand.

3. Focus of this Research

Recreation challenges in the rural and urban areas of Nigeria essentially relate to (a) availability of leisure time; (b) attitude to recreation; (c) demand for recreational facilities; and (d) supply and management of recreational facilities.

Anecdotal evidence suggests that Nigerians have generally a negative attitude to recreation, possibly because most of them are ignorant of its health, social and economic benefits, some of which are reiterated below.

Health benefits of recreation, for instance, include reduction of obesity; reduction of the risk of chronic disease; boosting of the immune system; and increase in life expectancy (California State Parks, 2005). Physical activity is related to significant reductions in depression (a mental illness) (Landers, 1997). Social benefits include reduction of crime and promotion of stewardship (Borrie and Roggenbuck, 2001); promotion of social bonds (California State Parks, 2005); support of seniors (Chodzko-Zajko, 1998); support and development of youth (California State Parks, 2005); enhancement of education

(Mann and Hensley, 2005); deterring negative behaviour (California State Parks, 2005); and crime prevention (California State Parks, 2005).

It has also been claimed that the wealthier and more educated segments of the population tend to recreate better because they can afford to do so and are more aware of the benefits. Furthermore, it is believed that males tend to be more outgoing and therefore recreate more than the women, possibly because of cultural constraints imposed on the latter.

In some parts of Nigeria, undoubtedly, most women take less part than men in some recreational activities, such as drinking in bars. Instead, the more educated and affluent women prefer to stay at home watching television, reading novels and/or listening to music, while the less literate and less affluent, especially in rural areas, tend to spend much of their free time on child rearing and gossip (Okinedo, 1995). There is also a marked change amongst women when they get married as the institution of marriage itself imposes some constraints.

It is well known that in Nigerian urban areas, especially, there is generally puny effort to provide recreational facilities of all types. Unfortunately, there is paucity of research in Nigeria on both the supply and demand sides of recreation. Consequently, environmental planners are denied the hard facts on which to base recreational planning.

This research has attempted to fill part of this research gap. It has focused on participation in recreation (effective demand) and potential participation (latent demand). Participation is taken here to mean recreational behaviour, i.e., the actual involvement of individuals in different forms of recreational activity -- passive or active, indoor or outdoor.

4. Research Goal and Objectives

The goal of this research was to ascertain the patterns and determinants of recreational behaviour of residents of Port Harcourt, Nigeria. The research objectives were to: (i) measure residents' participation in active and passive recreational forms (indoors and outdoors); (ii) ascertain residents' opinions on the adequacy or otherwise of indoor and outdoor recreational facilities provided by government; and (e) find out residents' suggestions on how to improve recreational facilities in the city.

Answers were sought to the following research questions: (a) Were there real differences in hours of participation in (i) passive and (ii) active recreation between males and females? (b) Were there real differences in hours of participation in (i) passive and (ii) active recreation for age sub-groups (21-30 years; 31-40; 41-50; over 50) of males and females? (c) Were there real differences in hours of

participation in (i) passive and (ii) active recreation between male and female categories of persons in different stages of the family life-cycle?

Research Hypotheses

Figure 1 shows a conceptual model to explain variation in recreational behaviour or participation, i.e. to throw some light on the determinants of recreational behaviour. The model set out to examine to what extent the 5 independent/explanatory variables given (Stage in the Family Life Cycle, Gender, Education, Age, and Income) could together and separately explain variation in the dependent variable.
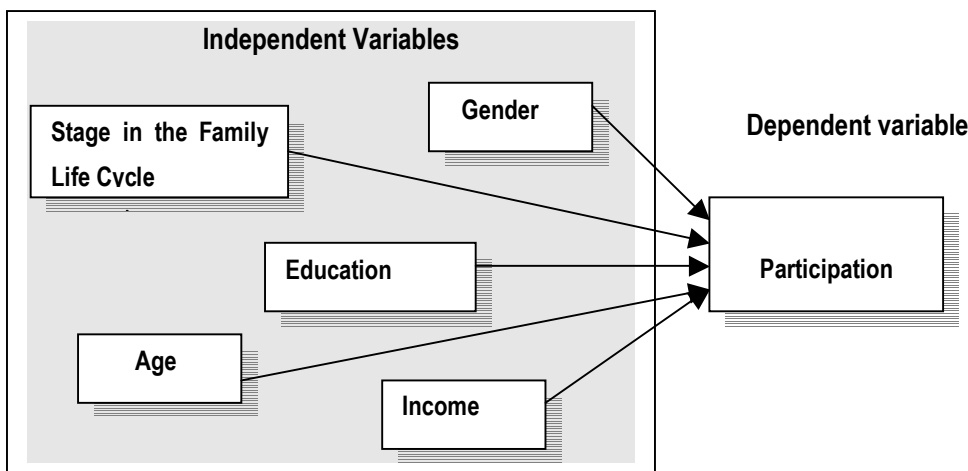
FIGURE 1: CONCEPTUAL MODEL EXPLAINING PARTICIPATION IN RECREATION, USING PERSONALITY VARIABLES

Research Methodology

The population for this study was defined as comprising persons living in legal (rateable) residential buildings as recognised by the Rivers State Government of Nigeria. Government had prepared a street-wise list of such buildings (totalling 7, 201) for the municipality which, therefore, constituted the sampling frame of buildings (household clusters) for this study. With an average cluster size of 8 households and an average household size of 6 persons (established from preliminary fieldwork) the population of the study area was estimated to be 345,648 persons. A 3-stage probability sampling technique (Kalton, 1983) was used: first, selecting a 5% probability sample of residential clusters from the total of 7, 201; second, randomly selecting one household from each chosen cluster; and third, picking the respondent from each selected household (from amongst those aged 21 years or over), using the modified Kish Selection Grid (Backstrom and Hursh-Cesar, 1981), yielding 369 respondents. The key data gathering instrument was a largely pre-coded questionnaire administered face-to-face to the respondents by trained interviewers.

Data analysis was carried out with the aid of the microcomputer-adapted software -- Statistical Package for the Social Sciences (SPSS). The study used the Pearson chi-square distribution to test hypotheses of independence or otherwise between relevant pairs of variables.

The multivariate technique used was Multiple Classification Analysis (MCA) (Andrews, *et al.*, 1973). This is a special type of regression technique -- particularly suitable in social research because of the common use of weak scales to measure variables -- employed to predict values of, or explain variance in, the dependent variable, using independent or predictor variables. This technique requires that the dependent variable be measured on the interval (continuous) scale or be dichotomous, while the independent variables could be measured on any scale: nominal/categorical, ordinal, continuous or ratio.

Mathematically, MCA is given by:

$$Y_{ij}\ldots\,_n = \overline{Y} + a_i + b_j + \ldots + e_{ij}\ldots_n$$

$Y_{ij\ldots n}$ = The score (on the dependent variable) of individual *n* who falls in category *j* of predictor B, etc.

$\overline{Y}$ = Grand mean on the dependent variable.

a_i = The "effect" of membership in the ith category of predictor A.

b_j = The "effect" of membership in the jth category of predictor B.

$e_{ij\ldots n}$ = Error term for this individual.

MCA yields three key coefficients: eta, beta and multiple r squared (r^2):

(a) Eta and eta^2: Eta indicates the ability of the predictor, using the categories given, to explain variation in the dependent variable. Eta is the correlation ratio and indicates the proportion of the total sum of squares explainable by the predictor; (b) Beta and $beta^2$: these are directly analogous to the eta statistics, but are based on the adjusted means rather than the raw means. Beta provides a measure of the ability of the predictor to explain variation in the dependent variable after adjusting for effects of all other predictors. This is not in terms of percent of variance explained; (c) A multiple correlation coefficient squared (adjusted for degrees of freedom). This coefficient estimates the proportion of variance in the dependant variable explained by all predictors together.

5. Results and Discussion

Participation in Active Indoor Recreation

Residents were asked to state for how many hours they participated in *active indoor* recreation per week. For the total sample, the mean was found to be 5.7; the means for males and females were 5.3 hours and 6.2 hours, respectively.

The study also ascertained participation in active indoor recreation according to Stage in the Family Life Cycle (SFLC) -- classified as follows: (i) single; (ii) newly married, no children; (iii) married with young children; (iv) married with school-age children; (v) married, children are nature and have left home; (vi) elderly widow/widower; (vii) remarried widow/widower . Results are shown in Figure 2. the highest mean (7 hours) was recorded for elderly widows/widowers.
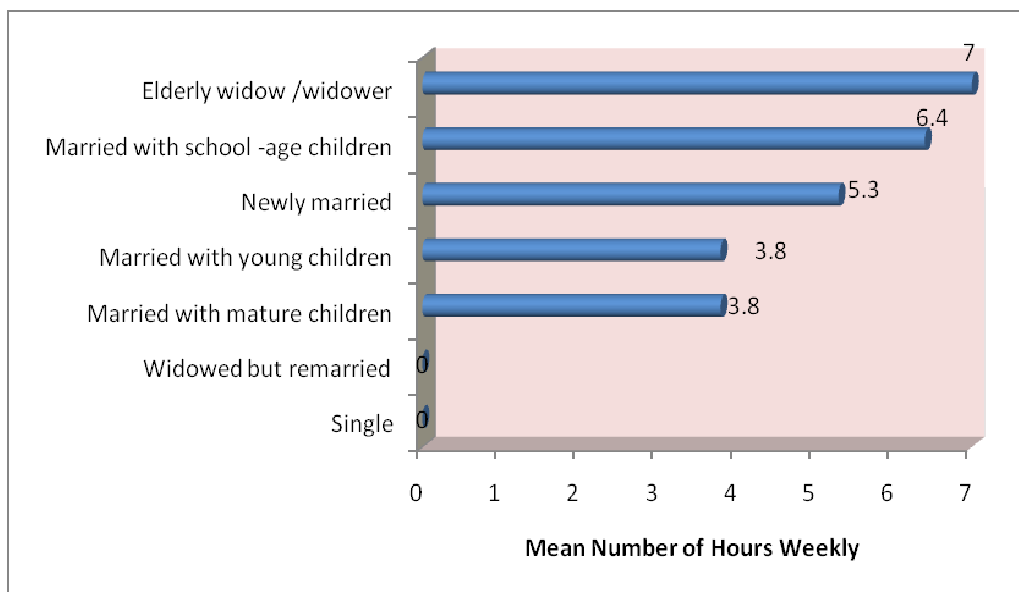

FIGURE 2: PARTICIPATION IN ACTIVE INDOOR RECREATION ACCORDING TO STAGE IN THE FAMILY LIFE CYCLE
Source: Author's Field Survey, October, 2008

Participation in Active Outdoor Recreation

Regarding participation in *active outdoor* recreation, the average figure for the total sample was 7.1 hours per week. For males and females, the average stood at 8.9 hours and 5.3 hours, respectively.

Figure 2 reveals that, on the whole, males engaged more in active recreation than females. However, while males engaged more in active outdoor

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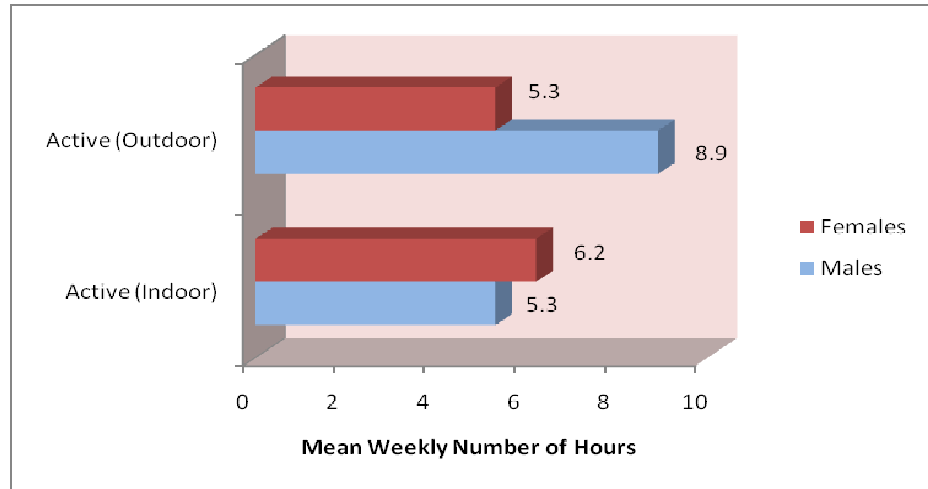RIVERS STATE, NIGERIA**

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FIGURE 2: WEEKLY PARTICIPATION IN ACTIVE RECREATION BY
MALES AND FEMALES IN PORT HARCOURT
Source: Authors' Field Survey, October 2008

forms, females participated more in active indoor forms. This pattern is consistent with the cultural pattern among the people of Rivers State, Nigeria (perhaps nationally) whereby males are more outgoing and therefore more likely to participate in active recreational forms that take place outside the home.

The nature of weekly participation in *active outdoor* recreation according to Stage in the Family Life Cycle (SFLC) was examined. The result is shown in Figure 3.
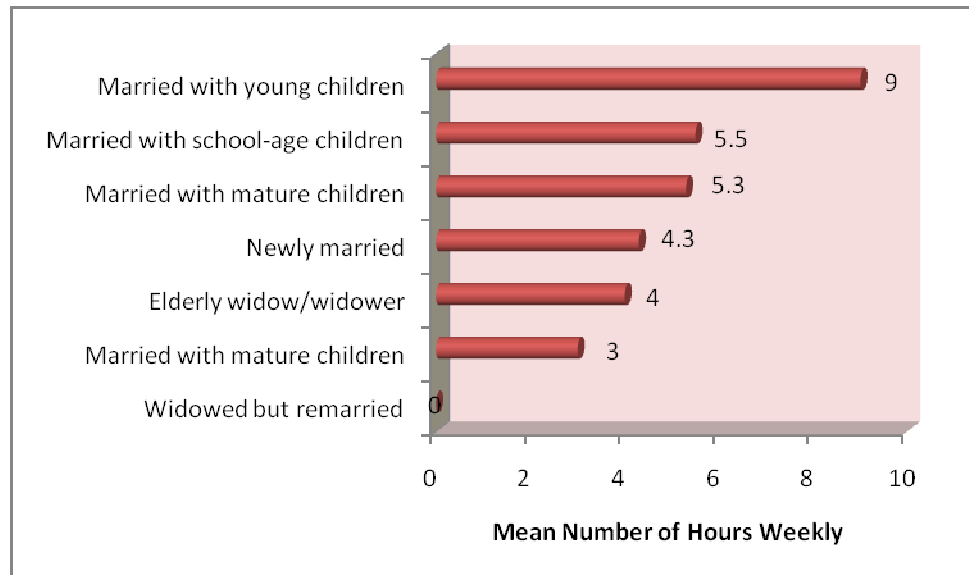

FIGURE 3: PARTICIPATION IN ACTIVE OUTDOOR RECREATION ACCORDING TO STAGE IN THE FAMILY LIFE CYCLE
Source: Author's Field Survey, October, 2008

Single people were found to spend the longest hours weekly on active outdoor recreation. This is logical since the single are likely to be younger, more energetic and outgoing.

Participation in Passive Indoor Recreation

For the total sample, respondents were found to spend an average of 36.8 hours weekly on *passive indoor* recreation, with males and females spending an average of 43.9 hours and 35.2 hours, respectively. Singles participated the most in this form of recreation, averaging 4.5 hours weekly.

Participation in Passive Outdoor Recreation

For passive outdoor recreation, average weekly duration of participation stood at 2.6 hours, with males and females averaging 2.5 hours and 3.7 hours, respectively. Those in the "Married with School-age Children" category of SFLC participated the most, averaging 2.6 hours weekly.

It is evident from Figure 4 that, overall, males participated more than females in passive recreation. However, females participated slightly more than males in passive outdoor forms. On the whole, respondents participated far longer in passive indoor than in passive outdoor recreation.
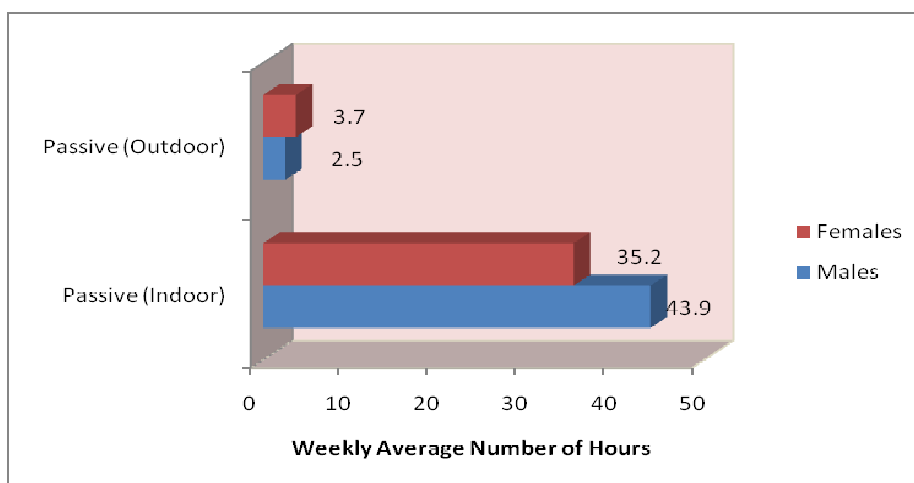

FIGURE 4: WEEKLY PARTICIPATION IN PASSIVE RECREATION BY MALES AND FEMALES IN PORT HARCOURT.
Source: Authors' Field Survey, October 2008

To ascertain whether there were real differences in weekly hours of participation in (a) active and (b) passive recreation between males and females, the Student's *t* test was applied. The single-tailed (directional) *t* test was adjudged to be appropriate here and therefore was used, rather than the two-tailed (non-directional) test type.

Regarding (a) active and (b) passive recreational forms, the null hypotheses that weekly hours of participation in recreation were not greater for males than for females were rejected ($p < 0.05$).

The means of the number of hours of participation in active recreation for the age sub-groups were found to be as given in Table 2. In order to determine if there were real differences

TABLE 2: MEAN NUMBER OF HOURS OF PARTICIPATION (PER WEEK) IN

ACTIVE RECREATION FOR AGE SUB-GROUPS

Variable Name	Description	Mean Hours of Weekly Participation in Active Recreation
TOTACAF1	Weekly participation by age sub-group 21-30 years in active recreation	10.8
TOTACAF2	Weekly participation by age sub-group 31-40 years in active recreation	15.3
TOTACAF3	Weekly participation by age sub-group 41-50 years in active recreation	4.7
TOTACAF4	Weekly participation by age sub-group >50 years in active recreation	18.7

Source: Authors' Field Work, October, 2008

the One-way Analysis of Variance (ANOVA) technique was used. It indicated that the hypothesis that all the means were equal should be rejected ($p < 0.05$). The Scheffe Multiple Comparison Test revealed that the following pairs of means were significantly different at the 95% probability level:

(I).   Mean for Sub-group 3 (41- 50 years) and

Mean for Sub-group 2 (31-40 years)

(II).   Mean for Sub-group 3 (41- 50 years) and

Mean for Sub-group 4 (>50 years)

The means of the number of hours of participation in passive recreation (per week) for the age sub-groups were found to be as given in Table 3.

TABLE 3: MEAN NUMBER OF HOURS OF PARTICIPATION (PER WEEK) IN PASSIVE RECREATION BY VARIOUS AGE SUB-

GROUPS IN PORT HARCOURT

Variable Names	Description	Mean Hours of Weekly Participation in Passive Recreation
TOTPAF1	Weekly participation by age sub-group 21-30 years in passive recreation	61.2
TOTPAF2	Weekly participation by age sub-group 31-40 years in passive recreation	28.3
TOTPAF3	Weekly participation by age sub-group 41-50 years in passive recreation	41.8
TOTPAF4	Weekly participation by age sub-group over 50 years in passive recreation	21.0

Source: Authors' Field Survey, October, 2008

The One-Way ANOVA test indicated that the hypothesis that all the means were equal should be rejected at the 95% probability level. The Scheffe Multiple Comparison Test revealed that the following pairs of means were significantly different at the 95% probability level:

(I).   Mean for Sub-group 4 (>50 years) and Mean for Sub-group 3 (41-50 years);

(II).   Mean for Sub-group 4 (>50 years) and Mean for Sub-group 1 (21-30 years);

(III).   Mean for Sub-group 2 (31-40 years) and Mean for Sub-group 1 (21-30 years); and

(IV).   Mean for Sub-group 3 (41-50 years) and Mean for Sub-group 1 (21-30 years).

Furthermore, the research tested the hypothesis of equality of mean hours of weekly participation in (a) active and (b) passive recreation between males and females in different stages of the family life cycle.

The results showed that for males and females in each stage of the family life cycle, we cannot reject (p< 0.05) the hypothesis of equality in mean hours of participation (per week) in active recreation. However the hypothesis of equality of participation in passive recreation between males and females should be rejected (p < 0.05)   for each stage of the family life cycle. In fact, from the results shown in Table 4, males in all stages of the family life cycle tended to participate more in passive recreation than females, except for the singles where the reverse was the case.

TABLE 4: MEAN HOURS OF PARTICIPATION IN PASSIVE RECREATION BY MALES AND FEMALES AT DIFFERENT STAGES OF THE FAMILY LIFE CYCLE

S/No.	Stage in the Family Life Cycle	Gender	Mean Hours of Weekly Participation in Passive recreation
1	Single	Male	50.5
		Female	54.8
2	Newly married	Male	48.3
		Female	47.6
3	Married with young children	Male	45.4
		Female	45.0
4	Married with school-age children	Male	46.4
		Female	41.4
5	Married with mature children	Male	46.1
		Female	39.0
6	Elderly widow/widower	Male	45.8
		Female	39.0
7	Remarried widow / widower	Male	45.8
		Female	39.0

Source: Authors' Fieldwork, October, 2008

Finally, results showed that we should reject the null hypotheses that each of the variables, Gender, Stage in the Family Life Cycle (SFLC), Age, Education and Income was not related (p < 0.05) to participation in recreation.

6. Model Estimation

The multivariate model stated earlier (i.e. using the variables: Stage in the Family Life Cycle, Age, Income, Education and Gender to explain the variation in Participation in Recreation, applying Multiple Classification Analysis) was estimated. The results are presented in Table 5.

TABLE 5: EXPLAINING VARIATION IN PARTICIPATION IN RECREATION USING SELECTED BACKGROUND CHARACTERISTICS MULTIPLE CLASSIFICATION ANALYSIS , N=116

S/No.	Explanatory Variable	Eta	Beta
1.	SFLC	0.49	0.91
2.	Income	0.31	0.74
3.	Education	0.40	0.53
4.	Age	0.41	0.48
5	Gender	0.28	0.05
$R^2 = 0.50$			

Note: The numbers in parentheses indicate the order of importance of the variables in explaining the variation in the dependent variable

Table 5 shows that the five variables together could explain 50% of the variation in Participation. This result shows a good performance of the model and is consistent with previous quality-of-life research results as reported by Andrews (1980).

Adequacy/Inadequacy of Government-Provided Recreational Facilities

 Respondents were asked to state their opinions about the adequacy or otherwise of government provided indoor and outdoor recreational facilities. The results are shown in Figure 4 which reveals that for indoor recreation, there was virtually a 50:50 split in opinion regarding adequacy and inadequacy.
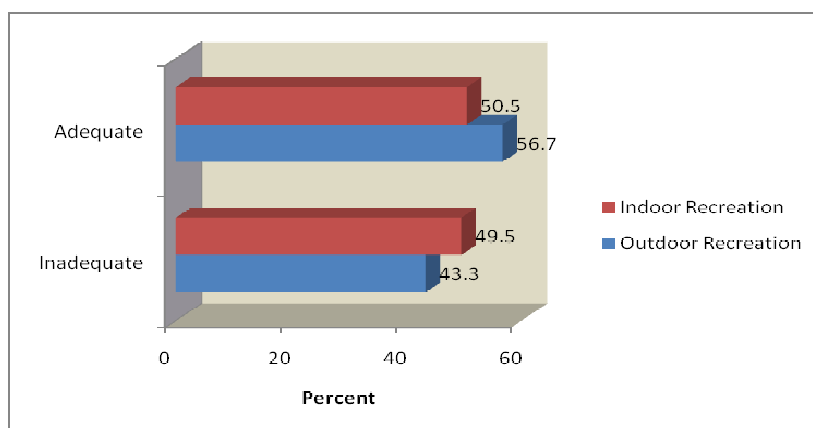

FIGURE 4: PERCEIVED ADEQUACY/INADEQUACY OF GOVERNMENT OUTDOOR AND INDOOR RECREATIONAL FACILITIES IN PORT HARCOURT
Source: Authors' Field Work, October, 2008

This high level of perception of inadequacy is understandable, considering that government has made provision for indoor recreation for the Port Harcourt population in only two centres -- the Port Harcourt Civic Centre and the Obi Wali Integrated Cultural Centre. About 4 in 10 persons also considered provision for outdoor recreation to be inadequate. This relatively high level of negative perception is again not surprising because government has made provision for organised outdoor recreation in Port Harcourt only in the civic centre (excluding the Sharks Football Club stadium).

Residents Suggestions about Improvement of Public Recreational Facilities and Behaviour in Port Harcourt.

Respondents were asked to suggest three measures, in order of importance, to improve recreational participation in the city. As Table 6 shows, the modal first, second and third mentions were: "increased provision of recreational facilities by government" (78%); "people should be educated on the benefits of recreation (25.8%); and "affordable prices should be charged in public recreational facilities" (42.3%), respectively.

TABLE 6: SUGGESTIONS ABOUT IMPROVEMENT OF PUBLIC RECREATIONAL FACILITIES AND BEHAVIOUR IN PORT HARCOURT (FIRST, SECOND AND THIRD MENTIONS)

Code No.	Items	First Mentions		Second Mentions		Third Mentions	
		N	%	N	%	N	%
1	Government should increase provision of recreational facilities	96	78.0	14	15.1	0	0
2	Government should control usage of recreational facilities	9	7.3	22	23.7	7	26.9
3	Government should provide adequate security in public recreation centres	7	5.7	13	14.0	4	15.4
4	Affordable prices should be charged in public recreational facilities	0	0	4	4.3	11	42.3
5	Government should Renovate/rehabilitate existing public facilities	3	2.4	4	4.3	0	0
6	People should be educated on the benefits of recreation	4	3.3	24	25.8	4	15.4
7	Encourage private sector participation in public provision of recreational facilities	4	3.3	4	4.3	0	0
8	Monitor public recreational facilities to discover talents	0	0	8	8.6	0	0
	Total	123	100	93	100	26	100

The responses show that there is a strong desire on the part of the populace for the provision of more recreational facilities in the city.

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7. Conclusions

This study has reached a number of conclusions, namely:

(I).   That women participate less in recreational activities (especially active outdoor forms) may be related to cultural inhibitions on women in Nigeria, such that the men have greater freedom to participate in outdoor recreational activities;

(II).   The low levels of participation in recreation may be tied to paucity of all forms of recreational facilities. The low-income parts of the city, e.g., Diobu (Miles 1, 2 and3) are particularly deprived in this regard. There, the researchers observed drinking in bars as a popular passive recreational activity, and it was not an uncommon sight to observe children playing table-tennis and football on streets, next to open drains.

(III). Some of the few facilities for outdoor recreation (e.g., the Port Harcourt zoo) are in a poor state with relatively few animals and poorly motivated staff. The place is clearly in dire need of improvement.

8. Recommendations

Some recommendations are proffered here to deal with the observed attributes of recreation in Port Harcourt, namely:

1)   The last major revision of wages in the public sector in Nigeria put the minimum wage at ₦7, 500. there appears to be a positive correlation between low wages and non-participation in recreation. An upward review of salaries in the public sector is long overdue. Higher wages would remove the necessity for secondary work and thereby release more time for recreation.

2)   There needs to be concerted effort by government to provide organized open spaces and recreational centres throughout the city. In Port Harcourt main town, there used to be designated open spaces (e.g., Jubilee Park) that have now been converted to other uses. New open spaces should be created in the main town at easily accessible points to serve all residents of this part of Port Harcourt.

3)   In Diobu as already noted, the situation is worse, given the higher densities (ranging from 500 to 1,000 persons per hectare) as reported in the Port Harcourt Master Plan, 1975 – 2005. The only open space in this part of Port Harcourt, the Ojukwu Field, has now been

converted to a temporary market following construction work at the Mile 1 market. Government needs to provide a system of open spaces for outdoor recreation including structures housing indoor recreational facilities to ensure that residents of Diobu improve their minds and bodies through recreation. This would also permit youths to channel their energies to worthy pursuits such as recreation, thereby diverting them from such nefarious engagements as cultism and alcoholism.

4) Organised outdoor recreational activity centres, e.g., the Isaac Boro Park and the Port Harcourt Zoo should be comprehensively improved. In the case of the latter, this should include the introduction of more exotic animal species for the enjoyment of visitors. Other centres, e.g., botanical gardens, aquariums and resorts should be built in different parts of the city. Designers of recreational facilities should be challenged to take into account the special needs of the elderly in their designs in order to encourage this vulnerable group to take more part in recreation, to improve their health and social life.

5) The Social Welfare Ministry should periodically organize seminars and other such educational programmes to acquaint the people with the health and social benefits of recreation and stress the need for both sexes to participate actively in recreational, ignoring the restrictions that tradition tends to impose selectively on women.

6) The organized private sector should be encouraged by government through grants and land provision to provide modern recreational centres (equipped with both outdoor and indoor facilities) as government alone, even with the best will in the world, is unlikely to be able to provide the full range of facilities that would adequately meet the recreational needs of the residents of Port Harcourt.

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