

Assessment of Health Promotion Life Style of a Sample of Nigerians in Early Old Age

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Abstract

Adults aged 55-69 years were investigated for life styles that expose them to health risks. A structured questionnaire (Cronbach's alpha, 0.72) was used to obtain information on health promotion life style (HPLS) domains of diet, health factors, physical activity, social engagement, and relaxation. Average HPLS (median, 54 vs. 100 max. points), which varied with demographic characteristics was indicated. Females' HPLS was better than male's (58 vs. 44; $P < 0.05$) while respondents with tertiary education were better than lower education cohorts (55 vs. 42-44; $P < 0.05$). HPLS for 55-59 years respondents was lower than older cohorts' (44 vs. 52.5-53.5; $P < 0.05$) while no significant difference by marital status occurred. Logistic regression analyses indicated that gender, age and education were significantly associated with HPLS. Although the overall prevalence of poor HPLS was 47.5%, it varied by domains (35.5-66.8%). The substantial prevalence of poor HPLS necessitates awareness campaigns with males, middle age and poorly educated adults as principal targets.

Key Words: Health risk; Diet; Physical activity; Social engagement; early old age.

1. Introduction

It is well known that getting old leads to gradual loss of physical health and cognitive functions, which invariably affect life styles. Promoting successful or healthy ageing is the objective of health authorities in many parts of the world in order to reduce the economic burden of chronic diseases associated with old age. This is against the background of increasing ageing populations due to longer life expectancy and declines in fertility rates (WHO, 2011). According to WHO (2011), "The number of people aged 65 or older is projected to grow from an estimated 524 million in 2010 to nearly 1.5 billion in 2050, with most of the increase in developing countries". The WHO report concerning developing nations is consistent with the report that ageing population in sub-Sahara Africa including Nigeria is increasing (Velkoff & Kowal, 2006; Togonu-Bickersteth & Akinyemi, 2014). While the wealthy or industrialized nations can manage the health care burden of old age, it will be difficult for low-income nations to cope. However, the low-income countries can minimise the impact of ageing-related diseases by promoting healthy life styles.

Health promoting life styles have been identified as a means of preventing ill health especially non-communicable diseases such as diabetes and cardiovascular problems (Boutayeb & Boutayeb, 2005; Hong et al. 2007; Mo & Winnie, 2010). Thus campaigns drawing attention to healthy life styles have been mounted through radio, television, newspaper and internet-based social media in some countries (e.g. US Department of Health and Human Services, 2000; Sakurai, 2001; American College Health Association, 2002). It is obvious that chronic diseases such as diabetes, HIV, and heart diseases cannot be completely controlled despite the advances in science and technology without a change in human behaviour. The nexus between risky behaviour and health can be seen in the 10 health risk factors reported by WHO (2002). They are: maternal and child underweight; unsafe sex; high blood pressure; tobacco; alcohol; contaminated water, poor sanitation, and hygiene; high cholesterol; indoor smoke from solid fuels; iron deficiency; and high body mass index (BMI) or overweight. According to WHO (2002), these risk factors are responsible for 40% of deaths worldwide. It is therefore important to monitor behaviours that pre-dispose humans to these health risks through investigations in order to formulate policies and programmes that can cause positive changes in behaviour.

Investigations on health promoting life styles have been carried out in many countries especially high- and middle-income countries (e.g. European Agency for Safety and Health at Work, 2010; McQueen & Salazar, 2011; Wei et al. 2012; Kirag & Ocaktan, 2013; Coe & de Beyer, 2014). Although it has not been sufficiently researched in sub-Saharan Africa some reports abound (e.g. Govender, 2005; Adegoke 2010; Iyalomhe & Iyalomhe, 2012; Olaitan et al. 2013; Olanunbo and Ayo, 2013; Joseph-Shehu & Irinoye, 2015). Succinctly, the reports from sub-Saharan Africa revealed poor adherence to healthy life styles with poverty, poor education and lack of awareness as associated factors. Except the study by Olanunbo & Ayo (2013), the studies from sub-Saharan Africa did not specifically focus on older adults. Even then the investigation by Olanunbo and Ayo (2013) did not substantially cover the risk factors identified by WHO (2002).

Early old age is a period of transition to late life where disabilities and other ageing-related diseases set in. It is therefore important that early old age be targeted in health promotion campaigns in order to retard the negative impact of ageing in late life. This study was therefore undertaken to assess the health promotion life style of Nigerian adults aged 55-69 years as it relates to some of the 10 risk factors identified by WHO (2002).

2.0 Method

2.1 Data source

A structured questionnaire was used to obtain information from adults (55-69) years) that were randomly selected from urban areas in Delta State, Nigeria. The self-administered questionnaire contained sections on socio-demographic background (age, gender, marital status, occupation, education) and questions relating to the 10 risk factors identified by WHO (2002). A total of 400 questionnaires were distributed by research assistants and 357 were returned with all the questions answered as requested. Verbal consents of the respondents were obtained prior to handing out the questionnaires. The assistants also aided illiterate respondents by interpreting the questionnaire in the local languages where applicable.

2.2 Measures

A Likert-styled scale was designed to measure the habit/life style of the respondents for healthy life. The questions consist of 25 items with nutrition, health, physical activity, social engagement, and relaxation domains as sub-scales. The questionnaire was tested and re-tested in pilot studies with 50 respondents aged 55-69 years. The Cronbach's alpha was 0.72 and 0.74-0.76 for the sub-scales. Respondents were requested to indicate the frequency of the habits listed in the sub-scales (Appendix 1) as it applies to them on a 4-point scale (1, never; 2, sometimes; 3, often; and 4, always). Items such as consumption of oil/fatty and sugary foods, smoking and exposure to smokes, and consumption of alcohol were reverse scored. The maximum available score for the entire scale is 100 while it ranged from 12 to 40 with regards to the sub-scales (Appendix 1). Respondents having scores below or above 50% of the maximum points were placed in the poor or good health promotion life style categories, respectively.

2.3 Data analyses

Descriptive statistics (median, range) was used to analyse the overall and sub-scale scores. The differences in scores on the basis of socio-demographic variables were analysed by Mann-Whitney U and Kruskal-Wallis H tests. Logistic regression was used to ascertain the relationship between the habit/life style and socio-demographic variables with poor and good life style as the dependent dichotomous variables.

3.0 Results

Table 1 presents the socio-demographic characteristics of the respondents and the median and range scores of overall health promotion life style. With the exception of females and respondents living with spouse, the population of the respondents in the socio-demographic categories were generally below 50% of the sample size (Table 1). The median score for the health promotion life style was slightly above 50% of the maximum available points when all respondents were considered (Table 1). It however, varied with background characteristics. Statistical analyses by Kruskal-Wallis H and Mann-Whitney U tests showed that respondents aged 55-59 years had significantly lower HPLS score than other age groups while the tertiary education group scored significantly higher than the lower education groups (Table 1). Significant gender difference occurred with females scoring higher than males (Table 1). No significant difference was found on the basis of marital status (Table 1). Analyses of the median scores by domains of the health promotion life style showed that it also varied with respondents' background characteristics.

Statistical analyses showed that significant gender and marital status differences occurred only in health and physical activity domains (Figure 1). Significant differences by educational level were found in all, but relaxation domain while it occurred by age difference only in nutrition and health domains (Figure 2).

Prevalence of poor health promotion life style was nearly 50% by overall assessment (Figure 3). Going by domains, only the prevalence of social engagement was low (<40%) while the prevalence of other domains of health promotion life style were above 50% (Figure 3). The health risk domain was further analysed by graphical illustration on the basis of gender (Figure 4). Gender differences in prevalence were found with females markedly better at routine medical checkups and markedly less involved in smoking, alcohol consumption, and exposure to smoke except from kerosene cookers (Figure 4). With respect to other risk factors, gender differences were marginal as illustrated in Figure 4. Logistic regression analyses showed that males and respondents aged 55-59 years were significantly less likely to be of good standing in their health promotion habits than females and other age groups, respectively (Table 2). Only respondents with tertiary education were significantly likely to be in good standing among the education groups (Table 2). No significant association was found between marital status and health promotion life style (Table 2).

4.0 Discussion

Going by the median score, the health promotion life style trends among adults in early old age can be rated average. Although this may not be regarded as very satisfactory, it is likely to reduce the morbidity and mortality arising from non-communicable diseases if the trend is sustained and improved. However, there are inconsistencies in some reports on health promotion behaviour in Nigeria (Adegoke, 2010; Omotoso, 2010; Iyalomhe & Iyalomhe, 2012; Olaitan et al., 2013; Joseph-Shehu & Irinoye, 2015) which makes it difficult for comparison or to define a trend. It is either the reports did not focus on older adults *per se* or vary in the health indices investigated. For example Adegoke (2010) reported that there was a high level of awareness of the negative effect of compromised health behaviour in South West Nigeria while the report by Olaitan, et al. (2013) showed that “executives” in South West Nigeria exhibited poor health promotion life styles. A report that specifically focused on older adults was limited to one urban centre and it focused on dietary habits and medical checkups (Olasunbo & Ayo, 2013). However, none of these reports indicated outstanding positive health promotion life styles. These inconsistencies notwithstanding, the average rating indicated in this report is not sufficient to meet the goal of health promotion, which is to prevent diseases.

The indication that females were significantly more likely to exhibit better health promotion habits than males was unexpected given the general knowledge that women tend to report poorer health than men (McDonough & Walters, 2001; Gorman & Read, 2006; Singh, Arokiasamy, Singh & Rai, 2013). A closer examination of the results shows that women scored higher in more lifestyle domains especially health, than men. The prevalence of the risk items under the health domain corroborates the finding that females tend to be more health conscious than males. It is common knowledge that smoking and exposure to cigarette smoke and consumption of alcohol is more common with Nigerian men than women. Although they were not specific for older adults, some studies have shown that the health promotion life style of females tend to be better than males’ (Rasky, Stroneger & Friedl, 1997; Adegoke, 2010; Wei et al., 2012). While the result of this study concerning gender difference is consistent with these reports, the available report on older adults in Nigeria (Olasunbo & Ayo, 2013) indicated otherwise. However, more studies are required before a definite conclusion can be drawn, because the scope of the investigation by Olasunbo & Ayo (2013) was limited to one urban centre.

The absence of significant difference or lack of association between marital status and health promotion life style is corroborated by the outcome of analyses of the results by domains where significant difference occurred only in two (physical activity and health) of the five domains. This is understandable because the absence of spouse brings loneliness which can in turn reduce engagement in outdoor leisure-time physical activity and trips to hospitals for medical checkups. With regards to the influence of education, the indication that health promotion lifestyle was better among respondents with tertiary education can be attributed to increase in awareness and better understanding of the health risk of some habits. This is supported by the observation that they (tertiary education cohorts) scored higher in health and nutrition domains, which relates to health more than other domains. Several previous reports have also indicated that education promotes life styles that reduce health risks (e.g. Sobal, 1986; Uitenbroek Kerekouska & Festchieva, 1996; Rasky, Stroneger & Friedl, 1997; Adegoke, 2010; Olasunbo & Ayo, 2013).

The consciousness of health risks tended to be less with the younger age group as the result suggests. The younger respondents excelled in physical activity and social engagement domains that are not directly related to health, but require more vigour which the older age respondents may not have. Although Olasunbo & Ayo (2013) did not report any significant difference by age in their study which was conducted in another part of Nigeria, some previous reports suggest that older people tend to exhibit better health behaviour (Kandrack, Grant & Segall, 1991; Taylor, 1995) as this investigation revealed.

Health promotion life style especially of older adults is under-researched in sub-Sahara Africa. Given the poor state of the economy of many nations of this region, emphasis should be more on prevention of communicable and non-communicable diseases which is more cost-effective. A limitation of the study is that it was largely descriptive. Further investigations would need to elucidate the underpinnings of behaviours that expose people to health hazards in a contemporary traditional African society where cultural and religious beliefs are still in vogue. For instance health beliefs and traditional religion have been reported to be factors in health-seeking behaviour (Iyalomhe & Iyalomhe, 2012) while provision of adequate information for rural dwellers is a problem in some settings (Joseph-Shehu & Irinoye, 2015).

5.0 Conclusion

The health promotion life style of adults in early old age in the Nigerian settings investigated can be rated average. The life styles that expose people to the health risk factors identified by WHO (2002) remains substantially present among adults in early old age. This needs to be tackled because early old age is a period of transition to late life where ageing-related non-communicable diseases set in rapidly. The implication is that awareness campaigns will be needed if the burden of late life is to be reduced and successful ageing promoted. Males, middle-age adults and poorly educated adults should be especially targeted in health promotion campaigns, because their association with poor health promotion life style. Although the population of people aged 60+ years in sub-Sahara Africa is low for now, it is better to introduce policies and programmes that will reduce the economic burden of older adults in the future.

6.0 References

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Table 1. Analyses of differences in overall assessment of health promotion life style by socio-demographic characteristics

Socio-demographic variables		Respondents		Health promotion life style score*		
		N	%	Median	Min.	Max.
All respondents		357	100	54	36	69
Age^a	55-59	137	38.4	44	40	59
	60-64	120	33.6	52.5	43	67
	65-69	100	28.0	53.5	44	59
Gender^b	Male	166	46.5	44	41	59
	Female	191	53.5	58	48	69
Marital status	With spouse	221	61.9	54	46	58
	Without spouse	136	38.1	50.5	42	61
Education^c	None/primary	105	29.4	42	35	54
	Secondary	141	39.5	44	36	58
	Tertiary	111	31.1	55	46	69

*Maximum available points=100. Significant difference ($P<0.05$): ^a55-59 vs 60-64/65-69 years; ^bmale vs female; ^cnone/primary vs tertiary. Analyses was by Kruskal-Wallis H and Mann-Whitney U tests (see Method).

Table 2: Logistic regression analyses of the relationship between socio-demographic variables and health promotion life style

Socio-demographic variables		OR	95% CL
Age	65-69	1	
	60-64	1.50	0.78-2.20
	55-59	0.49*	0.09-0.86
Gender	Female	1	
	Male	0.65*	0.24-0.96
Marital status	Without spouse	1	
	With spouse	1.22	0.81-1.74
Education	None/Primary	1	
	Secondary	1.34	0.72-2.14
	Tertiary	3.6*	1.86-5.15

* $P<0.05$

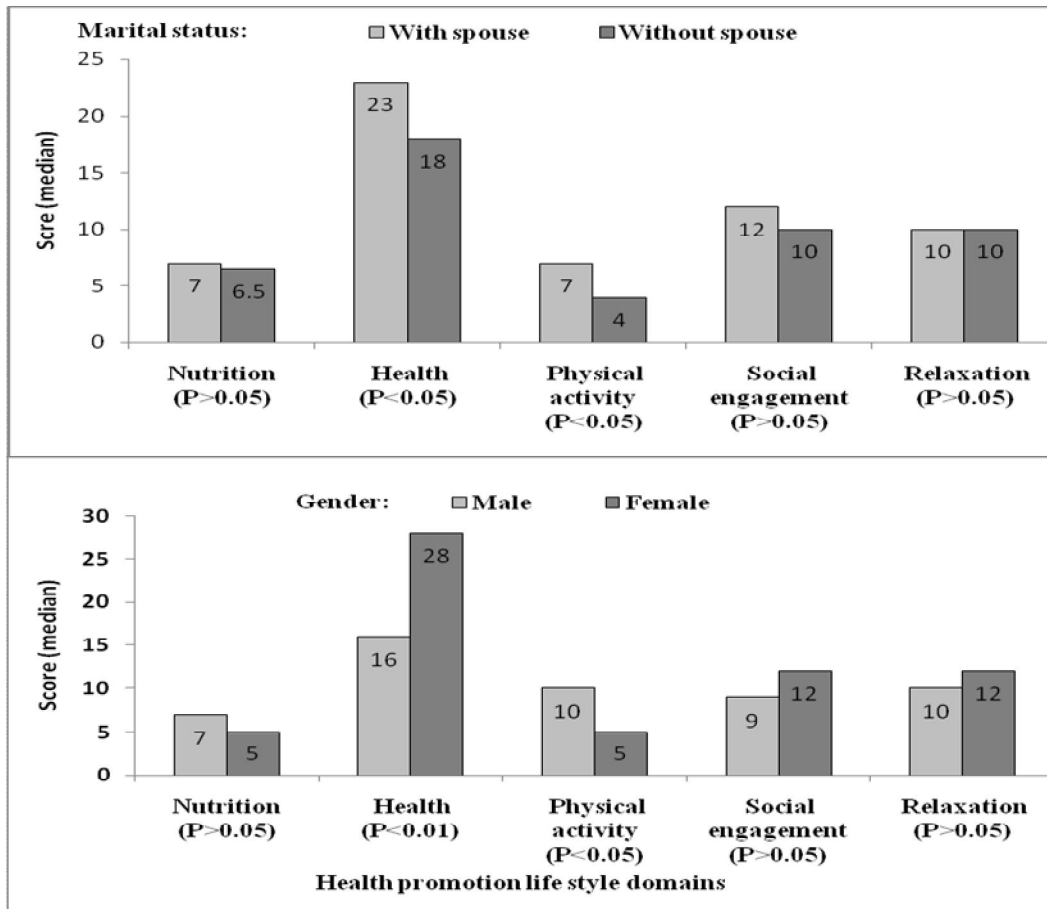


Figure 1: Comparison of marital status and gender differences in health promotion life style domains by Mann-Whitney U test (see Appendix for maximum available points /domain).

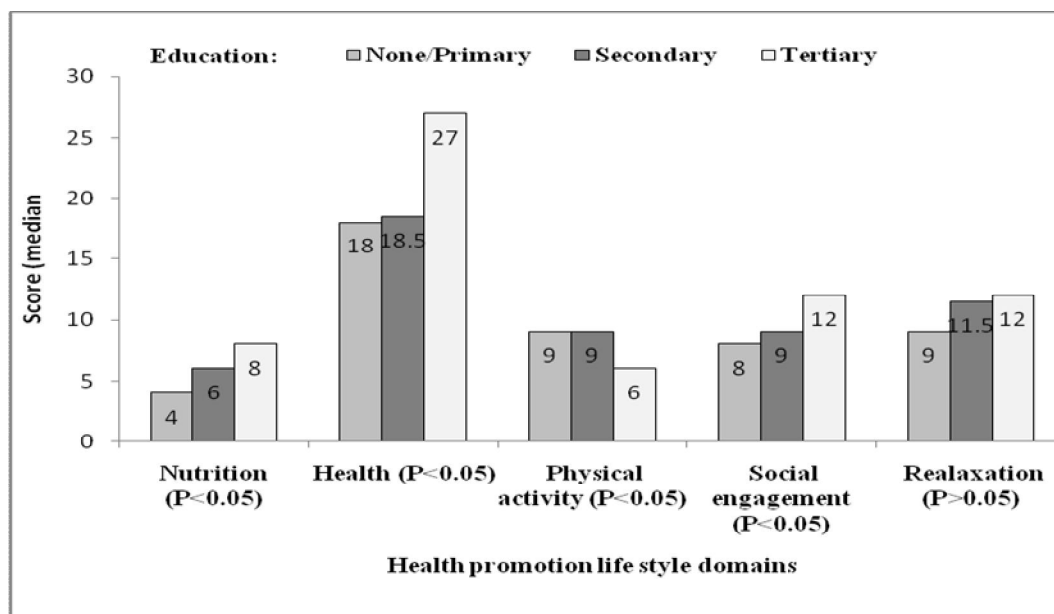


Figure 2: Comparison of age and education level differences in health promotion life style domains by Kruskal-Wallis H test (see Appendix for maximum available score /domain).

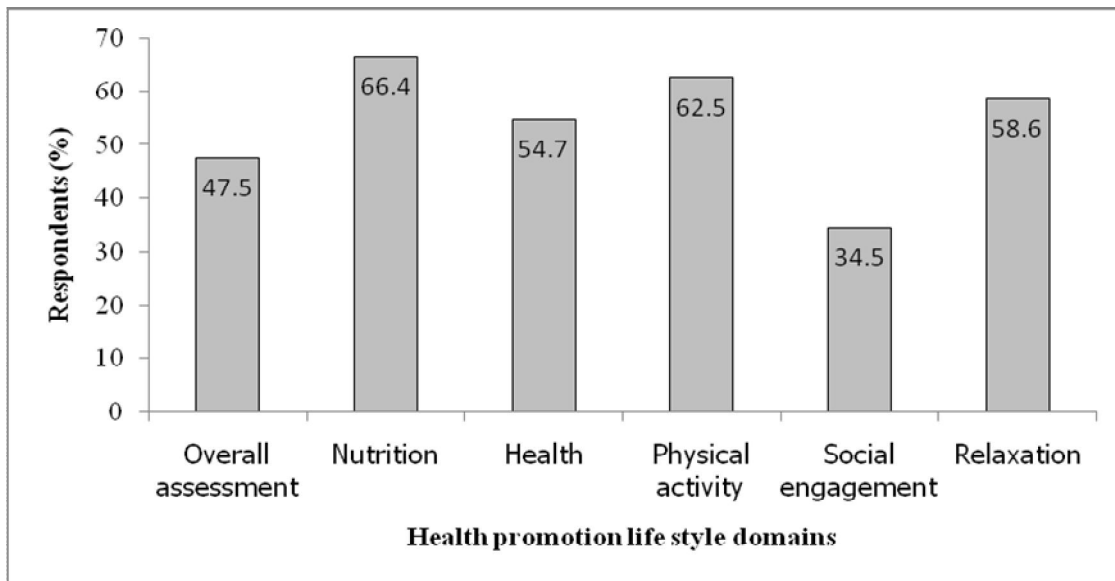


Figure 3: Prevalence of poor health promotion life style

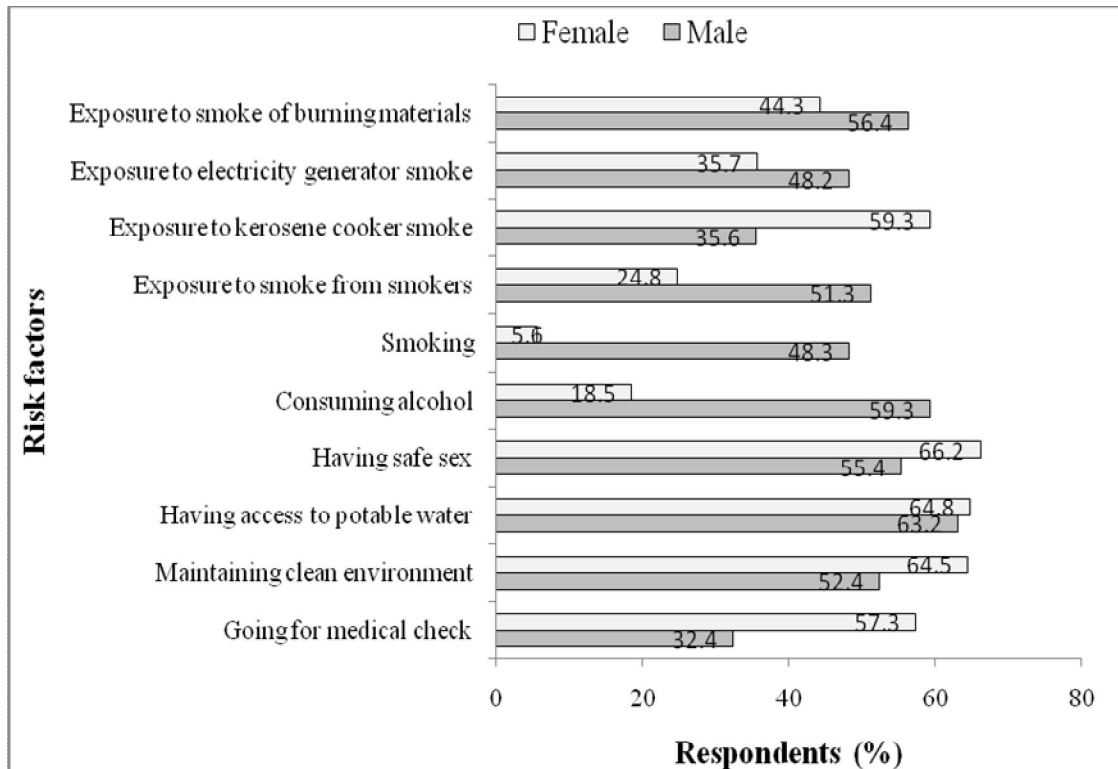


Figure 4: Prevalence of health risk factors by gender

Appendix: Health promotion questionnaire (Cronbach's alpha, 0.72)

Please use the scale: 1, never; 2, sometimes; 3, often; and 4, always; to show the frequency of your habit/life style concerning the items listed in the table below

Measured parameter	Max. score	Scale:1	2	3	4
Nutrition	12	Never	Sometimes	Often	Always
Consumption of:					
Oil/fatty foods*					
Sugary food/drinks*					
Fruits					
Health	40				
Going for medical checkups					
Maintaining clean environment					
Having access to potable water					
Having safe sex					
Consuming alcohol*					
Smoking*					
Exposure to smoke from smokers*					
Exposure to kerosene cooker smoke*					
Exposure to electricity generator smoke*					
Exposure to smoke of burning materials*					
Physical activity	12				
Walking					
Cycling					
Any outdoor sports					
Social engagement	16				
Visiting friends					
Interacting with neighbours					
Participation in traditional ceremonies (e.g. marriages, child naming, burial)					
Engagement in club/society activities					
Relaxation	20				
Having enough sleep					
Listening to radio programmes					
Watching television programmes					
Play music and watching home video					
Reading newspapers					
Maximum available points	100				

*Reverse scored