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Gender Differences in Healthy Lifestyle Behaviours: A Case of Students at the Institute of Rural Development Planning in Dodoma, Tanzania

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Abstract

Purpose: Healthy lifestyle behaviours lead to good health and reduce the mortality rate. The objective of this study was to examine gender differences in healthy lifestyle behaviours among students at the Institute of Rural Development Planning in Dodoma, Tanzania.

Methodology: The study area was Mbwanga ward at the respective Institute. The research design was cross-sectional in which data were collected from the population at a single point in time. The sample size was 160 respondents involving 67(41.9%) males and 93(58.1%) females out of 281 registered students in the Second Year Bachelor Degree Programme of Human Resource Planning and Management 2020/2021 academic year. The data collection method was interview while a structured self-reported questionnaire derived from the Lifestyle Screening Tool developed by Kim and Kang was a data collection tool. Descriptive and inferential statistics were used to conduct data analysis by Statistical Package for Social Sciences.

Findings: Results showed that there were gender differences in healthy lifestyle behaviours. Females were at least leading in perceiving desirable behaviours which included water drinking, air-breathing, dietary habits, temperance and trust. Males only did better on two healthy lifestyle behaviours which included sleep and physical exercise compared with females. Further results on the Independent Samples t-Test ($t\ [158] = -1.858$; $p > .05$) showed that even though both gender had different perceptions of their lifestyle behaviours, such difference was not statistically significant.

Recommendations: The study recommended that students' Programme Coordinators should remind students to drink sufficient water for keeping good health on occasions of their scheduled meeting; while students should plant more trees and flowers at the Campus and in residential areas to optimize clean air-breathing.

Keywords: *Males, Females, Differences, Lifestyle Behaviours*

1.0 Introduction

Unhealthy diet, tobacco use, physical inactivity and excessive alcohol have been considered risk factors in acquiring non-communicable diseases among students (Shayo, 2019). Healthy lifestyle behaviours lead to good health in which males and females can succeed in reducing the mortality rate significantly (Loef & Walach, 2012). Healthy lifestyle behaviours also promote male and females' psychological well-being by reducing anxiety, depression and stress in their daily lives (Hanawi *et al.*, 2020). Physical fitness has been understood as an important outcome of a healthy diet, regular physical exercise and sufficient sleeping hours among males and females in higher education (Widyasari & Turnip, 2019).

The factors which influence healthy lifestyles among male and female students include campus health promotion, institutional barriers elimination, college environment, transition to new life, financial ability and academic pressure (Carmen *et al.*, 2016). In Sweden, it has been reported that lifestyle behaviours of students in higher education also are influenced by socio-demographic factors like gender, mother tongue and levels of parents' education but males showed more physical activity than females (Schmidt, 2012). In contrast to these results, it was reported by Çetinkaya et al (2021) that female Turkish students had a higher perception of physical activity than male students. Partly, these data show that gender differences in healthy lifestyle behaviours in higher education are inconsistent across countries and regions.

Furthermore, Khalil (2011) learned that male students in Libyan tertiary education were better in physical activity perception though they reported unhealthy behaviours like smoking, alcohol and drug consumption unlike females. Surprisingly, Farleigh (2015) showed that female students in the United States of America perceived themselves as smoking more cigarettes than males while their alcohol consumption did not show a difference from that of males. Therefore, the previous empirical findings on gender differences in healthy lifestyle behaviours among students in tertiary education are still inconclusive.

There has been little or no empirical evidence on differences between male and female students on healthy lifestyle behaviour perceptions in Tanzanian tertiary education. Thus, this study intended to examine gender differences in healthy lifestyle behaviours among students at the Tanzanian Institute of Rural Development Planning (IRDP). The results of the study will produce knowledge on healthy lifestyle behaviour between male and female students. The study results may provide aid to decision making regarding the implementation of a healthy lifestyle behaviour promotion programme for male and female students.

2.0 Methods

2.1 Study Area

The study area was Mbwanga ward at the Institute of Rural Development Planning in Dodoma City. The study area had a respective tertiary education institution which provided respondents' gender to test its influence on healthy lifestyle behaviour perceptions. The study area was relevant in representing other areas which lack evidence on the influence of gender on students' lifestyle behaviours

2.2 Research Design

The research design was cross-sectional in which data usually are collected from the population at a single point in time (Wang & Cheng, 2020). A cross-sectional research design was employed

because it helped to determine if the frequency of occurrences in the population varied across the study groups (Hemed, 2015). This design also could be done quickly in an economical way to allow researchers to analyze the prevalence of conditions among respondents (Cvetković Vega et al., 2021)

2.3 Sample Size and Sampling Procedure

The sample size was 160 respondents excluding 3 (1.8%) of non-responses among respondents. The sample size was selected at IRD out of 281 registered students in Second Year Bachelor Degree Programme of Human Resource Planning and Management in 2020/2021 academic year The study used Krejcie and Morgan (1970) equation in calculating the sample size as shown below. The sample size selected was sufficient to represent the population from the respective degree programme. The study used a probability sampling procedure to ensure that every respondent in the respective study programme had an equal chance of being selected as a respondent for this study. A simple random sampling technique was used as a probability sampling technique. All potential respondents were assigned numbers on pieces of paper and then placed in a box in which they were mixed and picked as respondents through a lottery method.

$$n = \frac{x^2 NP(1-p)}{d^2(N-1) + x^2 P(1-P)}$$

Whereby;

n = sample size

x^2 = the chi-Square for 1 degree of freedom at desired confidence level = 3.841

N = the population size

P = the population Proportion (assumed to be .50 since this would provide the maximum sample size)

d^2 = degree of accuracy expressed as a proportion (.05)

2.4 Data types and Source

The study employed only quantitative data collected by researchers from respondents who responded independently to the researchers. The primary data source was used by collecting fresh information not yet published by other researchers. The primary data source was chosen because there was no secondary data on the research theme in the study area.

2.5 Data Collection Methods and Tool

The data collection method consisted of an interview while a self-reported structured questionnaire was a data collection tool. This tool was derived from the Lifestyle Screening Tool established by Kim and Kang (2019) to measure healthy lifestyle behaviours among Korean students in tertiary education. However, the tool was adapted by using 7 lifestyle behaviours instead of 9 by including water drinking, air-breathing, sleep, physical exercise, dietary habits (nutrition), temperance and trust in the data collection tool. These healthy lifestyle behaviours were considered more important for Tanzanian youth in tertiary education. Proper sunlight skin exposure and general physical condition were excluded from the measurement tool.

The instrument also did not have any copyright limitation and the founders had confirmed its acceptable validity and reliability. A total of 28 items were developed on the Likert Scale with five levels of agreement with points ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The items were divided into seven sub-scales in which each sub-scale had four items which were rated by respondents during the administration of the research tool.

2.6 Data Analysis

The study employed descriptive and inferential statistics during data analysis. Descriptive statistics that were used included frequencies (f), percentages (%), mean (M) and standard deviation (SD). Descriptive statistics were used to summarize information regarding gender characteristics and scores on healthy lifestyle behaviours. Inferential statistics employed consisted of Independent Samples t-Test to compare mean differences between males and females in their levels of healthy lifestyle behaviours. Table 1 below is a summary of information which operationalizes the study variables

Table 1: Summary of Information on Operationalization the Study Variables

S/No	Set of Variables	Definitions	Measure-ment Scale	Coding Instructions
1.	Gender	Being male or female	Nominal	1 = Male 2 = Female
2.	Water Drinking	Drinking at least 8 glasses of water per day	Ordinal	Five Points Likert Scale: 1= Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 =Agree; 5 = Strongly Agree
3.	Air Breathing	Breathing clean air while in-home and hostels	Ordinal	-Do-
4.	Sleep	Sleeping for at least seven or eight hours per night.	Ordinal	-Do-
5.	Physical Exercise	Engage in sports, games and any physical activity for at least 30 minutes for two to four days per week	Ordinal	-Do-
6.	Dietary Habits	High consumption of fruits, vegetables, cereals, fish, plant oils as well as low intake of dairy products and saturated fats	Ordinal	-Do-
7.	Temperance	Avoid alcohol drinking and cigarette smoking	Ordinal	-Do-
8.	Trust	Trust friends and family members	Ordinal	-Do-

Source: Compiled from Various Literature

3.0 Results

3.1 Gender of Respondents

The study examined gender participation in the provision of responses sought by researchers. Table 2 displays that many respondents comprising 93 (58.1%) were females. Male students constituted less than half of all respondents as displayed in Table 2

Table 2: Age of Respondents

Gender	Frequency (f) (n = 160)	Percentage (%)
Males	67	41.9
Females	93	58.1
TOTAL	**160**	**100**

Source: Field Data

3.2 Gender Differences in Healthy Lifestyle Behaviours

The study also examined mean scores of each gender on healthy lifestyle behavioural perceptions. Results in Table 3 show that males had higher perception of sleep (M = 2.6; SD = .51) and physical exercise (M = 2.8; SD = .51) compared with females. Table 3 further displays that female respondents had higher scores than males in many lifestyles behaviours like water drinking (M = 2.3; SD = 1.1), air breathing (M = 2.9; 4.2), dietary habits (M = 2.5; SD = .50), temperance (M = 3.4; .51) and trust (M = 3.6; SD = .39).

Table 3: Gender Differences on Healthy Lifestyle Behaviours

Gender	Healthy Lifestyle Behaviours (n = 160)													
	Water Drinking		Air Breathing		Sleep		Physical Exercise		Dietary Habits		Temperance		Trust	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Males	2.2	.49	2.8	.53	2.6	.51	2.8	.51	2.4	.59	3.2	.57	3.4	.59
Females	2.3	1.1	2.9	.42	2.3	.42	2.5	.48	2.5	.50	3.4	.51	3.6	.39

Key: M = Mean Score; SD = Standard Deviation

Source: Field Data

3.3 Independent Samples t-Test Results

The study also compared the mean differences between males and females in healthy lifestyle behaviours by performing the Independent Samples t-Test statistics. Overall results from the Independent Samples t-Test as displayed in Table 4 was ($t\,[158] = -1.858$; $p > .05$) . These results in the t-Test showed that even though males and females perceived their healthy lifestyle behaviours differently; such difference was not statistically significant.

Table 4: Independent Samples t-Test

Gender	N	t - values	df	Sig.(2-tailed)
Male	67	-1.858	159	.065
Female	93			

Source: Field Data

4.0 Discussion

The study found that there were gender differences in healthy lifestyle behaviours. Female respondents showed leading results in many desirable lifestyle behaviours compared with males. The results supported Gore et al., (2021) who also found women students being the leading sex in reporting desirable lifestyle behaviours. Specifically, female respondents in the study area showed a higher perception of water drinking than their counterparts. Possibly, these results suggested that the biological roles of females demanded more water drinking than males. The study further found that female perception was higher in air-breathing lifestyle behaviour than that of males. These results suggested that females might be living in residences located in environments which had clean air than their male counterparts.

It was further found by the study that females did better in dietary habits than males. Niyz (2020) also found a higher perception of dietary habits among female students compared with males in terms of taking breakfast daily as well as consumption of fruits and vegetables. Persson (2017) also found that females had higher self-perception of consuming fruits which indicated desirable dietary habits among women than male Turkish students. Females did better in dietary habits probably because they were good at identifying and preparing meals for children and adults in African households. Apart from females reporting a higher perception in dietary habits, they were also leading in temperance behaviour than their counterparts in terms of less consumption of alcohol and cigarette smoking. These results were consistent with other studies conducted by Roper (2011), Mandil (2010) and Wagner et al (2007) in some foreign countries. The difference in levels of temperance between gender was perhaps attributed to the tendency of females to be more self-control from participating in risky behaviours compared with males (Byrnes et al., 1999; Hanapi et al., 2019).

It was further found that female respondents had a higher perception of trust than males. Possibly, trust among women was higher than males because females often were inclined to maintain the relationship with other people in contrast to men as found by Haselhuhn et al (2015). Even though males lagged in reporting good healthy lifestyle behaviours, they did better in sleep quality than their female counterparts. The results in this study confirmed those found by Tsai and Li (2004) which showed that on average males were leading females in sleep efficiency. Possibly, the biological differences and caregiving activities mostly done by females in the households were responsible factors for explaining sleep perception differences between males and females (Burgard et al., 2010; Fatima et al., 2016; Mallampalli & Carter, 2014).

Male respondents also reported a higher perception of physical exercise lifestyle behaviour than females. The results were in tandem with those found by Lores & Murcia (2008) showing that males preferred physical activity participation, particularly in sports and games more than females. Kubuisya et al (2015) suggested that males' motivation in gaining more energy during the

performance of the daily chores in their residences had a greater influence on their perception in physical exercises compared with females. Other factors which might have increased male perception of physical exercise was males' self-efficacy while the subjective health status and lack of peer support were drawbacks for female participation in a physical exercise programme (Seo & Ha, 2019).

Regardless of gender differences in healthy lifestyle behaviours, the independent samples t-Test results (t [158] = -1.858; $p > .05$) suggested that such difference was not statistically significant. Therefore, the gender of respondents had almost the same levels of perception in their healthy lifestyle behaviours. However, these results at the study area were inconsistent with those found by Dawson et al (2007) showing a significant difference between males and females in responses over lifestyle behaviours on sleep, temperance, dietary habits and physical activity.

5.0 Conclusion and Recommendations

The study found gender differences in healthy lifestyle behaviours although such differences were not statistically significant. However, females did better in perceiving the most desirable healthy lifestyle behaviours that were measured by this study. In contrast, males did better than females in a few lifestyle behaviours, particularly on sleep and physical exercise. Because there were no significant differences in lifestyle behaviours, the study provides the following recommendations to raise healthy lifestyle behaviours among males and females altogether.

i Students' Programme Coordinators should remind students to drink sufficient water for keeping good health on occasions of their scheduled meetings
ii Cafeteria operators in the study area should prepare drinking water where students can obtain it free of charge to reduce the burden of cost in buying drinking water
iii Students should not only plant trees and flowers on the Campus but also remember to do the same in their areas of residence to promote an environment in which they can optimize clean air-breathing
iv Lecturers should explain the adverse impacts of poor quality sleep to males and females to increase awareness of the importance of quality sleep for health and well-being.
v The Institute should provide adequate facilities for physical exercises and special support to students especially females to increase their participation in physical exercises like sports and games.
vi Dean of students should organize an intervention training programme on healthy dietary habits for students to improve their dietary habits practices
vii Parents, guardians, sponsors, couples and peers should counsel their relatives (students) on the importance of maintaining healthy lifestyle behaviours while attending higher education and after graduation.

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