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SOCIO-DEMOGRAPHIC VARIABLES INFLUENCING INVOLVEMENT IN EXERCISE AS HEALTH PROMOTION PRACTICE AMONG FEMALE POLICE OFFICERS IN IMO STATE, NIGERIA

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ABSTRACT: *The study investigated the socio-demographic variables influencing involvement in exercise as health promotion practice among female police officers in Imo State, Nigeria using a cross-sectional survey design. A structured and validated questionnaire with reliability co-efficient of 0.849 was used for data collection. Data were analyzed using mean, standard deviation and one-way Analysis of Variance (ANOVA). The study revealed that female police officers are involved in exercise which is a positive health promotion practice. There is significant difference in the involvement in exercise among female police officers in Imo State with respect to marital status. Age makes significant difference in the involvement in exercise among female police officers in Imo State. There is significant difference in the involvement in exercise among female police officers in Imo State with respect to level of education. Religion makes significant difference in the involvement in exercise among female police officers in Imo State. It was recommended that the female police officers should sustain their exercise pattern. There should be more sensitization workshops, seminars and conferences by Nigeria Police Force for female police officers to encourage them to continue in their exercise behaviour.*

KEYWORDS: Exercise, Health Promotion, Female Police Officers, Socio-Demographic Variables.

INTRODUCTION

Health promotion is an important branch of public health that has attracted more interest in recent years. In various populations, health promotion (HP) is reported to prevent or reduce the incidence of lifestyle diseases such as cardiovascular diseases-diabetes, obesity, hypertension, stroke and chronic diseases such as osteoporosis and cancers. In women, HP reduces the frequency of vasomotor symptoms (Verloop, Rookus, van der Kooy, & van Leeuwen, 2000; Friedenreich, 2001). One of such health promotion activities and practices is exercise and exercising. Elendu, Amasiatu, and Orunaboka (2017) viewed exercise as an organized, planned and supervised physical activity purposefully undertaken for the development of physical fitness of the participant. In this study, exercise refers to a planned, regular, and supervised physical activity that targets development of physical fitness of an individual. Exercising is an act of participating in physical exercise. Exercise and exercising have been associated with the development of physical fitness, prevention, control, management of cardiovascular diseases and improvement of one's health. The fitness and health of police officers especially the female police officers through exercise needs to be studied and encouraged to ensure their job effectiveness and efficiency. Police is a law enforcement agency of the government that combats crime, maintains peace and order in the society. It is an occupation that requires officers and men who are healthy and physically fit which can be achieved partly through

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exercise. It is a profession that is expected to employ and accommodate people who are physically fit. This supports why police officers especially female police officers need to be engaging in exercises to remain healthy and fit. The researchers are interested in ascertaining the involvement in exercise and socio-demographic variables that influence exercise involvement as health promotion practice by female police officers in Imo State, Nigeria.

Aim and Objectives of the Study

The aim of this study was to find out the socio-demographic variables influencing involvement in exercise as health promotion practice among female police officers in Imo State. Specifically, the study seeks to:

1. ascertain the involvement in exercise among female police officers in Imo State.
2. determine the influence of age on involvement in exercise among female police officers in Imo State.
3. ascertain the influence of marital status on involvement in exercise among female police officers in Imo State.
4. determine the influence of level of education on involvement in exercise among female police officers in Imo State.
5. establish the influence of religion on involvement in exercise among female police officers in Imo State.

Research Questions

The following research questions guided the study.

1. What is the involvement in exercise among female police officers in Imo State?
2. What is the influence of marital status on involvement in exercise among female police officers in Imo State?
3. What is the influence of age on involvement in exercise among female police officers in Imo State?
4. What is the influence of level of education on involvement in exercise among female police officers in Imo State?
5. What is the influence of religion on involvement in exercise among female police officers in Imo State?

Hypotheses

The following hypotheses were tested at .05 alpha level.

1. There is no significant difference in the involvement in exercise among female police officers in Imo State with respect to marital status.
2. There is no significant difference in the involvement in exercise among female police officers in Imo State with respect to age.

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3. There is no significant difference in the involvement in exercise among female police officers in Imo State with respect to level of education.

4. There is no significant difference in the involvement in exercise among female police officers in Imo State with respect to religion.

METHODS

The cross-sectional survey design was used for the study. The population as well as well as the sample for the study was 1,517 female police officers serving in 41 local police divisions spread across the twenty- seven (27) Local Government Areas of Imo State. The instrument for data collection was a structured and validated questionnaire with reliability co-efficient of 0.849 established using test-re-test method and Pearson Product Moment Correlation. 1,500 copies of questionnaire out of 1,517 copies administered were retrieved from the participants with 99.3% return rate. Mean, standard deviation and One-way analysis of variance (ANOVA) was used for data analysis with the hypotheses tested at .05 level of significance. Criterion mean of 2.50 was used in taken decision. Item mean or grandmean that is equal to or greater than 2.50 was adjudged as "involved", while item mean or grandmean that is less than 2.50 was taken as "not involved".

RESULTS

Research Question 1: What is the involvement in exercise among female police officers in Imo State?

Table 1: Involvement in exercise among female police officers in Imo State

S/N	Items	$\bar{x}$	SD	Decision
1	I do daily jogging	3.18	0.97	Involved
2	I engage in regular press-up.	3.17	0.94	Involved
3	I do mild exercise like walking daily	3.17	0.88	Involved
4	I do rope skipping.	3.23	0.98	Involved
5	I engage in short distance running.	3.21	0.95	Involved
	Grand mean	**3.19**		Involved

Table 1 shows that female police officers engage in daily jogging ($\bar{x}$ = 3.18; SD = 0.97); regular press-up ($\bar{x}$ = 3.17; SD = 0.94), and mild exercise like walking daily ($\bar{x}$ = 3.17; SD = 0.88). The female police officers are involved in rope skipping ($\bar{x}$ = 3.23; SD = 0.98), and engage in short distance running. With the grand mean of 3.19, the female police officers in Imo State are involved in exercise.

Research Question 2: What is the influence of marital status on involvement in exercise among female police officers in Imo State?

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Table 2: Influence of marital status on involvement in exercise among female police officers.

S/n	Items	Married (n=705)			Single (n=480)			Divorced (n=240)			Separated (n=75)		
		$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark
1	I do daily jogging	3.51	.90	Involved	2.91	.98	Involved	2.94	.75	Involved	2.60	1.21	Involved
2	I engage in regular press-up	3.43	.71	Involved	3.09	1.01	Involved	2.88	.99	Involved	2.20	1.17	Not involved
3	I do mild exercises like walking.	3.53	.68	Involved	2.91	.87	Involved	2.88	.93	Involved	2.40	1.03	Not involved
4	I do rope skipping	3.32	.80	Involved	3.13	1.14	Involved	3.13	.99	Involved	3.40	1.21	Involved
5	I engage in short distance running.	3.26	.96	Involved	3.28	.98	Involved	3.13	.78	Involved	2.60	1.03	Involved
	Grandmean	3.41			3.06			2.98			2.64		

Table 2 reveals that female police officers jog daily (married = $\bar{x}$ =3.51; single = $\bar{x}$ =2.91; divorce = $\bar{x}$ =2.94; separated = $\bar{x}$ =2.60); engage in regular press-up (married = $\bar{x}$ =3.43; single = $\bar{x}$ =3.09; divorced = $\bar{x}$ =2.88) while female police officers who are separated ($\bar{x}$ =2.20) do not engage in regular press-up. Female police officers do mild exercises like walking (married = $\bar{x}$ =3.53; single = $\bar{x}$ =2.91; divorced = $\bar{x}$ =2.88) while female police officers who are separated ($\bar{x}$ =1.03) do not engage mild exercises like walking. Female police officers do rope skipping (married = $\bar{x}$ =3.32; single = $\bar{x}$ =3.13; divorce = $\bar{x}$ =3.13; separated = $\bar{x}$ =3.40). Female police officers engage in short distance running (married = $\bar{x}$ =3.26; single = $\bar{x}$ =3.28; divorce = $\bar{x}$ =3.13; separated = $\bar{x}$ =2.60). Female police officers who are married (= $\bar{x}$ =3.41); single ($\bar{x}$ =3.06); divorced ($\bar{x}$ =2.98); separated ($\bar{x}$ =2.64) are involved in exercise as a health promotion practice.

Research Question 3: What is the influence of age on involvement in exercise among female police officers in Imo State?

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Table 3: Influence of age on involvement in exercise among female police officers.

S/n	Items	20 – 30 years (n=375)			31 – 40 years (n=570)			41 – 50 years (n=420)			51 – 60 years (n=135)		
		$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark
1	I do daily jogging	3.20	1.10	Involved	3.39	.71	Involved	3.07	.96	Involved	2.56	1.26	Involved
2	I engage in regular press-up	3.36	1.02	Involved	3.26	.82	Involved	3.00	.93	Involved	2.78	1.03	Involved
3	I do mild exercises like walking.	3.36	.89	Involved	3.26	.85	Involved	3.00	.76	Involved	2.78	1.14	Involved
4	I do rope skipping	3.64	.56	Involved	3.37	.87	Involved	2.96	1.05	Involved	2.33	1.25	Not involved
5	I engage in short distance running.	3.36	.84	Involved	3.16	1.04	Involved	3.39	.67	Involved	2.44	1.17	Not involved
	Gran dmean	3.38		Involved	3.29		Involved	3.08		Involved	2.58		

It is evident in Table 3 that female police officers jog daily (20 – 30 years = $\bar{x}$ =3.20; 31 – 40years = $\bar{x}$ =3.39; 41 – 50 years = $\bar{x}$ =3.07; 51 – 60 years = $\bar{x}$ =2.56); engage in regular press-up (20 – 30 years = $\bar{x}$ =3.36; 31 – 40years = $\bar{x}$ =3.26; 41 – 50 years = $\bar{x}$ =3.00; 51 – 60 years = $\bar{x}$ =2.78). Female police officers do mild exercises like walking (20 – 30 years = $\bar{x}$ =3.36; 31 – 40years = $\bar{x}$ =3.26; 41 – 50 years = $\bar{x}$ =3.00; 51 – 60 years = $\bar{x}$ =2.78). Female police officers do rope skipping (20 – 30 years = $\bar{x}$ =3.64; 31 – 40years = $\bar{x}$ =3.37; 41 – 50 years = $\bar{x}$ =2.96) while female police officers aged 51 – 60 years ($\bar{x}$ =2.56) do not engage in rope skipping. Female police officers engage in short distance running (20 – 30 years = $\bar{x}$ =3.36; 31 – 40years = $\bar{x}$ =3.16; 41 – 50 years = $\bar{x}$ =3.39) while female police officers aged 51 – 60 years ($\bar{x}$ =2.56) do not engage in short distance running. Female police officers aged 20 – 30 years ($\bar{x}$ =3.38); 31 – 40years = $\bar{x}$ =3.29; 41 – 50 years = $\bar{x}$ =3.08; 51 – 60 years = $\bar{x}$ =2.56) are involved in exercise as a health promotion practice.

Research Question 4: What is the influence of level of education on involvement in exercise among female police officers in Imo State?

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Table 4: Influence of level of education on involvement in exercise among female police officers.

S/n	Items	Primary Education (n=150)			Secondary Education (n=1095)			Tertiary Education (n=255)		
		$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark
1	I do daily jogging	3.90	.30	Involved	3.30	.87	Involved	2.24	1.00	Not involved
2	I engage in regular press-up	3.90	.30	Involved	3.23	.85	Involved	2.47	1.09	Not involved
3	I do mild exercises like walking.	3.90	.30	Involved	3.25	.79	Involved	2.41	.96	Not involved
4	I do rope skipping	3.60	.92	Involved	3.25	.92	Involved	2.94	1.16	Involved
5	I engage in short distance running.	3.90	.30	Involved	3.19	.97	Involved	2.88	.90	Involved
	Grand mean	3.84		Involved	3.24		Involved	3.59		Involved

Table 4 shows that female police officers with primary education ($\bar{x}$ =3.90); secondary education ($\bar{x}$ =3.30) jog daily, while female police officers with tertiary education ($\bar{x}$ =2.24) do not jog daily. Female police officers with primary education ($\bar{x}$ =3.90); secondary education ($\bar{x}$ =3.25) engage in regular press-up, while female police officers with tertiary education ($\bar{x}$ =2.47) do not engage in regular press-up. Again, female police officers with primary education ($\bar{x}$ =3.90); secondary education ($\bar{x}$ =3.25) do mild exercises like walking, while female police officers with tertiary education ($\bar{x}$ =2.41) do not engage in mild exercises like walking. Female police officers with primary education ($\bar{x}$ =3.60); secondary education ($\bar{x}$ =3.25); and tertiary education ($\bar{x}$ =2.94) engage in rope skipping. The table showed that female police officers with primary education ($\bar{x}$ =3.90); secondary education ($\bar{x}$ =3.19); and tertiary education ($\bar{x}$ =2.88) engage in short distance running. It could be seen that female police officers with primary education ($\bar{x}$ =3.84); secondary education ($\bar{x}$ =3.24); and tertiary education ($\bar{x}$ =3.59) engage in exercise as a health promotion practice.

Research Question 5: What is the influence of religion on involvement in exercise among female police officers in Imo State?

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Table 5: Influence of religion on Involvement in Exercise among female police officers.

S/n	Items	Christianity (n=1005)			Islam (n=360)			Traditional religion (n=135)		
		$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark	$\bar{x}$	SD	Remark
1	I do daily jogging	3.07	.98	Involved	3.58	.81	Involved	2.89	1.00	Involved
2	I engage in regular press-up	3.06	.98	Involved	3.58	.64	Involved	2.89	1.00	Involved
3	I do mild exercises like walking.	3.10	.87	Involved	3.50	.82	Involved	2.78	.92	Involved
4	I do rope skipping	3.16	1.02	Involved	3.58	.76	Involved	2.78	.92	Involved
5	I engage in short distance running.	3.25	.87	Involved	3.50	.82	Involved	2.11	1.10	Not involved
	Grand mean	3.13		Involved	3.55		Involved	2.69		Involved

Table 5 shows that female police officers (Christians= $\bar{x}$ =3.07; Muslims = $\bar{x}$ =3.58; traditional religionists= $\bar{x}$ =2.89) jog daily. Again, female police officers (Christians= $\bar{x}$ =3.06; Muslims = $\bar{x}$ =3.58; traditional religionists= $\bar{x}$ =2.89) engage in regular press-up. The table reveals that female police officers (Christians= $\bar{x}$ =3.10; Muslims = $\bar{x}$ =3.50; traditional religionists= $\bar{x}$ =2.78) do mild exercises like walking. Female police officers (Christians= $\bar{x}$ =3.16; Muslims = $\bar{x}$ =3.58; traditional religionists= $\bar{x}$ =2.78) engage in rope skipping. More so, female police officers (Christians= $\bar{x}$ =3.25; Muslims = $\bar{x}$ =3.50) engage in short distance running while female police officers who are traditional religionists ($\bar{x}$ =2.89) do not engage in short distance running. From the grand means, female police officers (Christians= $\bar{x}$ =3.13; Muslims = $\bar{x}$ =3.55; traditional religionists= $\bar{x}$ =2.69) engage in exercise as a health promotion practice.

Hypothesis 1: There is no significant difference in involvement in exercise among female police officers in Imo State with respect to marital status.

Table 6: Summary of ANOVA of no significant difference in involvement in exercise with respect to marital status

	Variables	Sources of variance	SS	Df	MS	F-cal	F-crit.	P-value	Decision
	Marital status and Exercise Involvement	Between group	73.988	3	24.663	66.512	2.60	.000	Rejected
		Within group	554.716	1496	.371				
		Total	628.704	1499					

It is evident in table 6 that marital status makes significant difference in the exercise practice (F-calculated 66.512 > F-critical 2.60; df 3 & 1496; p< 0.05) of female police officer in Imo State.

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Hypothesis 2: There is no significant difference in involvement in exercise among female police officers in Imo State with respect to age.

Table 7: Summary of ANOVA of no significant difference in involvement in exercise with respect to age

S/n	Variables	Sources of variance	SS	Df	MS	F-cal	F-crit.	P-value	Decision
	Age and Exercise Involvement	Between group	74.916	3	24.972	67.459	2.60	.000	Rejected
		Within group	553.788	1496	.370				
		Total	628.704	1499	36.794				

Table 7 reveals that age makes significant difference in the exercise practice (F-calculated 67.459 > F-critical 2.60; df 3 & 1496; p< 0.05) of female police officers in Imo State.

Hypothesis 3: There is no significant difference in involvement in exercise among female polices officers in Imo State with respect to level of education

Table 8: Summary of ANOVA of no significant difference in involvement in exercise with respect to level of education

Variables	Sources of variance	SS	Df	MS	F-cal	F-crit.	P-value	Decision
Level of Education and Exercise Involvement	Between group	158.883	2	79.442	253.127	2.99	.000	Rejected
	Within group	469.821	1497	.314				
	Total	628.704	1499					

Table 8 reveals that level of education makes significant difference in the exercise practice (F-calculated 253.127> F-critical 2.99; df 2 & 1497; p< 0.05) of female police officers in Imo State.

Hypothesis 4: There is no significant difference in involvement in exercise among female police officers in Imo State with respect to religion.

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Table 9: Summary of ANOVA of no significant difference in involvement in exercise with respect to religion

Variables	Sources of variance	SS	Df	MS	F-cal	F-crit.	P-value	Decision
Religion and Exercise Involvement	Between group	84.008	2	42.004	115.440	2.99	.000	Rejected
	Within group	544.696	1497	.364				
	Total	628.704	1499					

Table 9 reveals that religion makes significant difference in the exercise practice (F-calculated 115.440> F-critical 2.99; df 2 & 1497; p< 0.05) of female police officers in Imo State.

DISCUSSION OF FINDINGS

The female police officers are involved in exercises which is a positive health promotion practice. There is significant difference in the involvement in exercise among female police officers in Imo State with respect to marital status. This agrees with Yim et al., (2012) which established that married women have healthier behaviors than single women. This is supported by Adegoke (2010) who reported that marital status correlated with health behaviour practices. Age makes significant difference in the involvement in exercise among female police officers in Imo State. This contradicts other studies (Deeks et al., 2009; Thompson et al., 2005) in which women's HPPs increased as they became older and substantial trend towards poorer health practices (particularly smoking) among younger women. Maclean et al., (2004) reported healthier behaviours among older women than younger ones. There is significant difference in the involvement in exercise among female police officers in Imo State with respect to level of education. The finding agrees with Sobal's (1986) report that people with higher education practiced more preventive health behaviour than people with low level of education. This is supported by Adegoke (2010) who reported that level of education correlated with health behaviour practices. There is significant difference in the involvement in exercise among female police officers in Imo State with respect to religion. This is in agreement with previous study (Chatters, 2000) that reported that there is growing recognition that religious and spiritual concerns are important for understanding health-related behaviors, attitudes, and beliefs.

CONCLUSION

Exercise is a health promotion practice engaged by female police officers which should be sustained to prevent or control disease occurrence. In order to develop or sustain any intervention programme on exercise for female police officers, some socio-demographic variables such as marital status, age, level of education, and religion which have influence on exercise behaviour must be considered.

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RECOMMENDATIONS

1. Female police officers should sustain their exercise behaviour pattern as a way of promoting their health and fitness.

2. There should be more sensitization workshops, seminars and conferences by Nigeria Police Force for female police officers to encourage them to continue in their exercise behaviour.

3. Involvement in exercise should be part of promotion criteria for female police officers. This may encourage them to engage more in exercises.

REFERENCES

Adegoke, A. A. (2010). Correlates of health behaviour practices among literate adults of south-west, Nigeria. *The African Symposium: An Online Journal of African Educational Research Network, 10*(2), 26 – 38.

Chatters, L.M., (2000). Health Behavior and Health Education, Annu. Rev. Public Health, (21)335–67

Creel, D. B. (2007). *Assessing the influence of religion on health behaviour.* A PhD Thesis, Louisiana State University and Agricultural and mechanical College.

Deeks, A., Lombard, C., Michelmore J. & Teede, H. (2009). The effects of gender and age on health related behaviors. BMC Public Health 9, 213

Elendu, I. C., Amasiatu, A. N., & Orunaboka, T. T. (2017). *An overview of human kinetics.* In A. K. Okorosaye-Orubite, C. N. Olele, O. G. Kemjika, N. M. Abraham, & G. Adekola (Eds.) Introduction to Education (pp.283 – 308), Port Harcourt: University of Port Harcourt Press.

Friedenreich, M.C. (2001). Physical activity and cancer: Lessons learned from nutritional epidemiology. *Nutrition Reviews, 56,* 349-357.

Maclean, H., Glynn, K., Cao,Z. & Ansara, D.(2004). Personal health practices *BMC Women's Health, 4*(1). Accessed from https://doi.org/10.1186/1472-6874-4-S1-S4

Sobal, J. (1986). Health protective behaviours in first year medical students. *Social Sciences & Medicine, 2,* 593 – 598.

Thompson, F.E., Mistune, D., Subaru, A.F., McNeel, T., Berrigan, D., & Kipnis, V. (2005). Dietary estimates in the National Health Interview Survey,2000: Methodology, results, and interpretation. *Journal of the American Dietetic Association, 10*(3),352-363.

Verloop, J. Rookus, M.A., van der Kooy, K., & van Leeuwen, F.E. (2000). Physical activity and breast cancer risk in women aged 20–54 years. *Journal of the National Cancer Institute, 92*(2), 128-135.

Yim, H.J., Park, H. A., Kang, J.H., Kim, K., Cho, Y.G., Hur, Y.I., & Choi, J.E (2012). Marital Status and Health Behavior in Middle-aged Korean Adults. Korean J Fam Med., 33(6), 390–397

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