



RESEARCH ARTICLE

DEMOGRAPHIC FACTORS AS PREDICTORS OF HEALTH PROBLEMS AMONG PRISON
INMATES IN SOUTH-SOUTH REGION OF NIGERIA

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ARTICLE INFO

Article History:

Received 17th August, 2016
Received in revised form
22nd September, 2016
Accepted 09th October, 2016
Published online 30th November, 2016

Key words:

Demographic,
Health problems,
Prison inmates.

ABSTRACT

The study investigated Demographic factors as predictors of health problems among prison inmates in south-south region of Nigeria. The study aimed at identifying which demographic factor predicts health problems among prison inmates in the region. One research question and one hypothesis guided the study. The study adopted a correlational research design. The population comprised all the 4,752 prison inmates from three prisons in south-south region. A sample size of 1,520 inmates was determined using proportionate stratified and purposive sampling techniques. Validated and reliable Self-structured questionnaire was used for data collection. Research question was answered with multiple and linear regression, ANOVA and t-test associated with multiple and linear regression analyzed the hypothesis. The result of the study proved that level of education and occupation had high prediction. However, demographic factors jointly predicted health problems. The study recommended Government and NGOs to improve educational system as well as skill acquisition facilities in prison to enhance the life of this vulnerable group when they are discharged to the free world.

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Citation: Chukumati, C. N., Okpako J. E. F. and Akpan, U. S. 2016. "Demographic factors as predictors of health problems among prison inmates in south-south region of Nigeria", *International Journal of Current Research*, 8, (11), 41304-41306.

INTRODUCTION

Globally, there is punishment for every defaulter of societal laws. Those who committed crime are confined for trial irrespective of their social class. A prison is described as a facility in which inmates are forcibly confined and denied a variety of freedom under the authority of the state as a form of punishment. Detainees are faced with some health challenges either before confinement or while confined and sometimes even when they are discharged to the free world. Globally, Crime rate is at increase, thereby over populating the prisons above their capacity. Over population of the prison gave rise to poor prison standard. In view of this, Obioha (2011) identified that in Nigerian prisons, 'overcrowding, and poor sanitation, lack of food and medicines and denial of contact with families and friends, contradicted United Nations (UN) standards for the treatment of prisoners'. Poor environments have adverse health implications on human beings. These health-problems could be physical, social or mental. 'Poor prison environment fans both communicable and non-communicable diseases among inmates which can as well be transferred to prison officers. 'Some include skin problems like; scabies, ring worm and eczema. Others are; malaria, diarrhoeal, typhoid fever, tuberculosis, pneumonia, hypertension, Sexually Transmitted Infections, HIV/AIDS amongst others (Usman2015)'.

Generally, health is influenced by demographic factors or social class. Ill health is not a respecter of any individual despite the social class. Health is the right of every individual. It is a critical human right, seen unmistakably by every individual. It goes far the limit for one to work effectively without obstructing daily activities. Okpako (2012) perceived health "as that personal satisfaction which empowers a man to be physically fit, rationally and decidedly ready, physiologically work well, socially adequate, ethically upright and candidly stable to confront up to emerging social, monetary and political emergencies, while completing convey one's duties successfully and proficiently without undue exhaustion but then emphatically relate with other kindred creatures." 'Demographic factors such as age, sex, marital status, occupation, level of education and religion additionally have awesome impact on health (Akinsola 2006)'. Health is determined by the environment and the social class individual belongs. People of low socio-economic status is prone to poor health. The poor living state of an individual exposes one to ill-health. Bassavanthappa (2010) expressed that 'age, sex, race distribution, socio economic status, occupation, education, health habits and behaviours or lifestyle, acquired resistance and susceptibility, health history, natural resistance and hereditary characteristics variables influence health.' Lucas and Gills (2003) asserted that 'specific ages are more vulnerable to infections'. Also, some infectious diseases show specific or marked difference in their sex incidence.'

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Objective

The objective of the study was to ascertain if demographic factors predicted health problems among prison inmates.

Research question

To what extent do demographic factors (age, sex, occupation, marital status, level of education and religion) jointly and independently predict health problems among prison inmates in South-South geo-political zone of Nigeria?

Hypothesis

Demographic factors (age, sex, occupation, marital status, level of education and religion) do not significantly predict jointly and independently health problems among prison inmates in South-South geo-political zone of Nigeria.

MATERIALS AND METHODS

Research Design

The research design adopted for the study was correlational. This determined the relationship between variables.

Participants

Four thousand, seven hundred and fifty-two inmates from Port Harcourt, Uyo and Calabar prisons in south-south region of Nigeria constituted the population. The proportionate stratified and purposive sampling techniques were used to select sample size of 1,520 inmates.

Instrumentation

The instrument used for data collection was a self-designed 26 item questionnaire tagged DHPS developed in sections 'A and B'. Section 'A' has the demographic factors, while section 'B' dealt with Health problems using 'Yes or No' response option. Validation of instrument and research question was done by three experts from the faculty to establish face and content validity. Reliability of 0.76 was obtained using Cronbach Alpha, after administering 30 copies of the questionnaires to inmates from Elele prison farm in Rivers state who were randomly selected.

Data Collection and Analysis

The researcher with five other trained research assistants administered and retrieved filled questionnaires immediately. While the unfilled was collected after one week. Multiple and linear regression were used to answer research question. ANOVA and t-test associated with multiple and linear regression was used to test the null hypothesis.

RESULTS

Table 4.1a shows that level of education predicted health problems among prison inmates more than other variables with mean value of 2.993 followed by occupation 2.536, age 1.913, duration 1.713, marital status 1.708, religion 1.556 and sex 1.195 respectively. Table 4.1b shows the model summary of correlation, R square Adjusted R Square and standard error of

the estimate. $R = 0.345$, $R^2 = 0.119$, Adjusted R Square = 0.106 and standard error of the estimate = 4.041.

Table 1. Descriptive statistics of joint demographic factors as predictors of health problems among prison inmates in South-South geo-political zone of Nigeria

Descriptive Statistics			
	Mean	Std. Deviation	N
Health problem	9.0147	4.07405	1362
Age	1.9126	1.02382	1362
Sex	1.1946	.43661	1362
Marital status	1.7078	.78734	1362
Level of education	2.9927	.87328	1362
Occupation	2.5360	1.20272	1362
Religion	1.5551	.85819	1362
Duration	1.7129	.90259	1362

Table 2. Multiple regression analysis of the joint demographic factors as predictors of health problems among prison inmates in South-South geo-political zone of Nigeria

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.345 ^a	.119	.106	4.04133

Table 3. Analysis of ANOVA associated with multiple regression on joint demographic factors as predictors of health problems among prison inmates in South-South, zone of Nigeria

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	475.751	7	67.964	4.161	.000 ^a
	Residual	22113.955	1354	16.332		
	Total	22589.706	1361			

a. Predictors: (Constant), duration, level of education, sex, occupation, religion, marital status, age

b. Dependent Variable: health problem $P < 0.05$

Table 3 showed the sum of squares, degree of freedom, mean square, F-ratio and the significant value. $F = 4.161$, $df(7, 1354)$, $P < 0.05$. The sums of squares are given as 475.751 and 22113.955. While the mean squares are given as 67.964 and 16.332 respectively. With a degree of freedom of 7 and 1354, significant probability value of 0.000 is less than the critical probability value of 0.05. Therefore, the null hypothesis was rejected. By implication, demographic factors jointly and significantly predicted health problems among prison inmates in South-South region of Nigeria.

Table 4. Linear regression analysis of the independent prediction of demographic factors on the health problems among prison inmates in South-South zone of Nigeria

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.918	.618		16.039	.000
	Age	-.168	.130	-.042	-1.291	.197
	Sex	-.844	.257	-.090	-3.283	.001
	Marital status	.400	.157	.077	2.542	.011
	Level of education	-.248	.129	-.053	-1.918	.055
	Occupation	-.122	.095	-.036	-1.277	.202
	Religion	.090	.133	.019	.675	.500
	Duration of stay	.381	.136	.084	2.797	.005

$$Y = AB + X_1 + X_2 + X_3 + X_4 + X_5 + X_6 + X_7$$

$$Y = 9.918 + -.168 + -.844 + .400 + -.248 + -.122 + .090 + .381.$$

The AB represents the constant, while X_1 to X_7 represents the various demographic variables considered in this study. The β -weights show the strength of each predictor variable. The standardized regression coefficients for demographic variables are age=-.042, sex=-.090 marital status=.077, level of education= -.053, occupation=-.036, religion= .019 and duration= .084. This showed that sex had t-value of -3.283 and sig. at 0.001, marital status had t-value of 2.542 and was significant at .011, level of education had t-value of -1.918 with a sig value of 0.055 and finally, duration of stay had a t-value of 2.797 and was significant at 0.005. On the other hand, age had t-value of -1.291 and was sig. at .197, occupation had t-value of -1.277 and not significant at .202, and finally, religion had t-value of .675 not sig. at .500.

DISCUSSION OF FINDINGS

The findings showed that sex, marital status, level of education and duration of stay are significant independent predictors of health problems among prison inmates in South-South zone of Nigeria. The findings above revealed level of education and occupation as predictors of health problems among prison inmates. This was well explained by (WHO 2011) that 'basic education was needed by inmates to limit their employment opportunities outside prison and re-orient their lives'. The view of other researchers showed that 'offenders with consistent patterns of unemployment are more prone to criminal behaviour (MacKenzie 2006)'. Duration of stay in prison also predicted health problems. Petersilia (2000), submitted that 'Prisoners confined in larger 'super max' institutions spend many hours in solitary or segregated housing have serious psychological problems due to overcrowding'. However, age, occupation, and religion were not significant independent predictors of health problems of prison inmates in South-South zone of Nigeria. Although, with other demographic variables, they jointly, significantly predicted health problems among inmates.

Conclusion

The results of the findings proved that level of education and occupation showed high significance on inmates' health. Generally, demographic factors jointly and significantly predicted inmates, health problems.

Recommendation

Government and NGOs to improve prison educational system as well as skill acquisition facilities in prison to enhance the lives of this vulnerable group even after discharge to the freeworld.

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