Full Length Research Paper

Socio- demographics, life event stressors and psychosomatic disorders among public servants in the Niger Delta region of Nigeria

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This study aimed at relating socio-demographics of people and their life event stressors to psychosomatic disorders or symptoms they have experienced or suffered during their day to day living. The respondents were 1631 public servants systematically sampled in Nigeria's oil rich Niger-Delta region of the Federation which has nine out of the thirty-six States. Their socio-demographics included: sex, age, residence, marital status, educational and economic status. Two measuring Psychometric tools: Holmes and Rahe's Life Event Inventory (modified) and Omoluabi's Psychophysiologocal symptoms checklist were used. The data generated was statistically analyzed using the Statistical Package for Social Sciences version 11. The result show that stressors do cause somatic symptoms but the nature and pattern of psychosomatic symptoms and diseases depends on socio-demographics such as sex, age, marital status, residence and economic conditions. It was concluded that therapeutic measures should be anchored on socio-demographics in order to alleviate or eliminate psychosomatic disorders.

Key words: Socio-demographics, stressors, life event inventory, psychosomatic symptoms.

INTRODUCTION

When you have an upset stomach or bad headache when an important assignment is due, you probably recognize that there is a connection between what is happening in your emotions and what is happening in your body (Halgin and WhitBourne, 2000).

Although the connection between mind and body as stated above seems simple on the surface, it is more complex than we might think. Health Professionals who study the "Mind-body" relationship attempt to determine why some people develop physiological or health problems when their lives become too busy, complicated, or filled with worrisome life events. It is true that the nervous system needs some amount of stress to function properly (Lacey, 1967), but stress that is persistent and too intense can have destructive physiological and psychological effects resulting to psychosomatic, disorders. In psychosomatic disorders, the usual reversible autonomic and hormonal response to stressors can cause irreversible tissue damage which results to psychosomatic illness. Psychosomatic illness presents itself in several somatoform such as prurits (itching), Bronchical asthma, Hiccups, Tachycardia (heart racing), hypertension, migraine Headaches, Peptic ulcers, Constipation, Heartburns, Painful sexual intercourse, impotence (difficulty obtaining or maintaining an erection, or both), Backaches, Muscle cramps, and Tension headaches.

Statement of the problem

In the Nigerian society today, times are very hard (Afolabi, 2005). The global credit crunch has introduced many vulnerability and insecurities. Many people are suffering from various stressors either within their work places or outside the formal work environment (Weich and Lewis, 1998). These can result in illnesses either physical such as Malaria or psychological such as inferiority complex leading to reactive depression or psychosomatic illness like hypertension, ulcer, migraine head-aches, impotence, heart burn, painful sexual intercourse, heart racing, constipation, itching and others (Halgin and Whitbourne, 2000).

In Nigeria like in most African cultures (Adomakoh, 1975), these psychosomatic illnesses are usually

perceived as physical illness due to their link to etiological factors of supernatural and preternatural beliefs. However no study has been conducted into this topic especially Socio-demographic differences in reactions to stressors like loss of job, poverty, loss of a loved one, displacement due to ethnic conflicts or insecurity in the Niger Delta region of Nigeria.

This study is aimed at finding out the differences in reaction to stressors among Nigerians with varied sociodemographic backgrounds. The objective of the study is to generate new knowledge on how these differences in symptoms and illnesses will put individuals in good position to manage their health. Secondly, it will enhance the formulation of policies for successful therapeutic processes by health care providers of health institutions in Nigeria.

Some essential definitions

According to Selye (1974) "Stress is the non-specific response of the body to any demand made upon it." While stressors are strains from social malaises in the environment in or out of formal work places. Such as loss of job, loss of parents' jobs, facing a disciplinary panel, working under unmotivated conditions, high cost of living that are incongruous with income paid to public servants, and pressures from family relatives displaced by conflict, consequently resulting to low standard of living, high wave of armed robbery, ever increasing rate of University graduates unemployment in the midst of wealth reactive depression (Majoroh and Ewhrudjakpor, 2004).

Holmes and Rahe (1967) define life events as changes in a person's day to day life which impose varying degrees of stress. In addition to a better understanding of the nature of one's life style and goals in an effort to reduce its stresses and strains, it is important to realize that the amount of changes that is taking place in one's life may be causing one some discomfort (Adomakoh, 1975; Onyeizugbo, 2008). These can stem from factors beyond one's control, such as the death of a close relative, or detention in jail or indeed material poverty.

For instance, depression rather than aggression is the female response to disappointment or loss of a loved one (Chester, 1994). Prostitution rather than sorrow is the female responses to communal conflict (Ewhrudjakpor, 1996; Majoroh and Ewhrudjakpor, 2004; Ewhrudjakpor and Ogege, 2008). It has been observed that males are psychologically disturbed as females, but their reactions differ. Chester (1994) argued thus:

There is no greater magnitude of social stress impinging on one or the other sex. Rather (each sex) tends to live a different style with which it reacts to whatever fact has produced the psychosomatic disorder.

Psychosomatic disorders are reactions of the body in which Socio-psychological factors play a causative role.

Lazarus (1966) whose views are much determined by psychoanalyses defined psychosomatic disorders as a bodily disorder whose nature can be appreciated only when emotional disturbances (life events) are investigated, in addition to physical disturbances (physiological or somatic strains). This study is therefore aimed at verifying the stated objective; to relate socio-demographics and life event stressors to psychosomatic disorders among public servants in the Niger Delta region of Nigeria.

Study area

The Niger Delta, as now defined officially by the Nigerian Government extends over about 70,000km² and makes up 7.5% of Nigeria's land mass. It consists of Bayelsa, Delta and Rivers states. Others are: Abia, Akwa Ibom, Cross River, Edo, Imo and Ondo States. These states have a census figure of 31,122,977 in annual growth rate of 2.8 percent out of Nigeria's total census figure of 140, 003, 542 (Federal Republic of Nigeria: Official Gazette 2007).

It is difficult to state socio-demographic figures on Nigeria authoritatively, as national census results have been contested (http://en.wikipedia.org/wiki/nigerianpeople). Therefore demographics presented below should be viewed with caution.

The age structure in this region are: 0 - 14 years, 44%; 15 - 64 years, 53% and 65 years and above, 3%, representing 16,002,797 males and 15,131,180 females representing 51.40 and 48.60% respectively of the total 2006 census figure of the region. The sex ratio for the total population is 1.02 male(s)/female. Life expectancy at birth, males: 51.58 years, females: 51.55 years, and the total population is 51.56 years.

In this region literacy age can be defined as 15 years and above, can read and write with total population of 57.1% out of which, males 67.3% and females 49.6%. 63.3% of inhabitants live in rural areas and 36.8% live in urban areas. It is pertinent to mention here that, the major occupation in rural areas are Agriculture (Fishing and farming), petty trade. However, oil exploitation and the resultant effects on the environment have rendered nearly impracticable these occupations the corollary of which is unemployment, poverty and feeling of helplessness. While in the urban areas, we have mostly civil servants, workers of multinational oil firms, and other white-collar jobs. Agriculture as occupation is almost nonexistent here. Therefore in classifying occupation into economic classes very few high economic statuses live in rural areas.

People of this region are from numerous ethnic groups such as Ibibio, Efik, Igbo, Isoko, Urhobo, Itsekiri, Ijaw, Yoruba. Their religious affinity is mostly Christianity and African traditional religion. Few Muslims are found in this region. The peoples in this region are patriarchal and 057

polygynous, except in the East such as Abia State.

The Niger Delta region of Nigeria is Africa's biggest producer of petroleum; some 2 million barrels are extracted daily accounting for about 85% of the nation's revenue. This "blessing" has become a "curse" for the people of this region. They suffer environmental devastation, economic poverty, and constant conflict resulting to both physical diseases and psychosomatic illnesses. To make matters worse, political considerations and greed on the part of a corrupt government have kept many of the earnings from these vast reserves from returning to the Niger Delta to help restore normal health and economic conditions. The Niger Delta is a region with high conflict incidence (Eguavoen, 2003).

Specific-reaction theory

Health researchers have argued that there are differrences, probably genetically determined in the ways people of varied demographics respond to stress. People have been found to have their own particular patterns of autonomic response to stress. The heart rate of one individual may increase, whereas another person may react with increased respiration rate but no change in frequency of heartbeats (Lacey, 1967). Thus individuals respond to stress in their own idiosyncratic manner, and the physiological system that is the most responsive may be a likely 'actor' for the locus of a subsequent psychosomatic activity (Kobasa and Puccetti, 1983).

METHODS

Sample and Sampling technique

Representatives of public service based surveys of staff aged 20 -75 years olds were systematically drawn from state ministries and parastatals to conduct this study between 2007 and 2008 in the Niger Delta region of Nigeria. 1800 respondents were sampled using the multi-stage sampling technique. They originally include equal number of males (900) and female (900), with varied other socio-demographic characteristics. But after distribution and retrieval of the filled out instruments it was found that only 1631 (90.61%) were clean and completely filled out for analysis (Table 1).

Instruments

Two Psychometric instruments were used to gather data from respondents these are: Life Events Inventory (LEI) originally developed by Holmes and Rahe (1967), and Psychophysiological symptoms checklist (PSC) originally developed by Omoluabi (1982).

Validity and reliability of instruments

Life Events Inventory (LEI): This inventory consists of 43 items. Each item describes an event that often occurs in cause of one's day to day activities. Before its use here, the items were modified in a number of ways to make it suitable for the Nigerian culture and people. For instance items or words were simplified, such as fired from jobs was changed to loss of work, mortgage over \$10,000 and foreclosure of mortgage or loan were deleted entirely. Death of spouse was changed to death of wife / husband.

Psychophysiological symptoms checklist (PSC): It contains 56 items. The items are common health complaints. This checklist was modified by including ratings for each item. The items were rated from, 'did not have it' to 'very severe' scaled as (0 - 5).

A separate pilot test of the instruments LEI and PSC provided test – retest reliability. The highest a subject scores the more stressful he perceived the life events. A construct validation yielded a modest validity scores of LEI (t = 6.09; df 48 p < .01;) and PSC (t = 5.96; df 48, p < .01) Kappa reliabilities in items ranged from 0.69 - 0.76 because the instruments did not yield a total score.

Procedure

The research instruments LEI and PSC were administered on 1631 representing 90.61% of the originally distributed sampled 1800 of both males and females. The two instruments were given to each of the 1631 sampled civil servants through research assistants who reside in these nine states in the Niger Delta region of Nigeria. The selected period was 2007 - 2008. The research assistants were taken through on instrument administration and ethical issues in health research. They administered and retrieved the filled out materials which were submitted to the author for data collation and analysis as contained in the result section here.

LEI was rated from 'very seriously' to 'No effect' with and a least score of O for no effect and maximum score of 5 for 'very seriously' the scores circled in all the items were summed up to constitute a total score for the life events inventory (LEI). The scoring of PSC is similar to that of the LEI. However in this case there was a least score of 'O' indicating 'did not have it' and a highest score of '5' indicated 'very severely affected'. The circled numbers in each of all the complaints were added up to constitute the individuals total score for psycho physiological symptoms. The higher a person score the more seriously he was affected by psychosomatic disorders.

Data from the survey were coded and entered into a computer using the SPSS version 11 software, simple percentages, and Ttest, Multiple Regression, Pearson product-moment correlation analyses were computed to establish relationship among Sociodemographics. Relationships between relevant socio-demographic and psychosomatic symptoms or diseases were assessed. The relationships were reported if they were statistically significant at P < 0.05, due to the vagaries of human nature, and generally accepted in the social science research.

RESULTS

The result is presented in Table 1.

DISCUSSION

Stress refers to the unpleasant psychological reaction a person has when he or she perceives an event to be threatening. This psychological reaction may include heightened physiological arousal due to increased reactivity of the sympathetic nervous system; this is measured here by the (Omoluabi's, 1982) Psychophysiological symptoms checklist (PSC). The stressor is the event itself, (daily effects of conflicts between militants and Nigerian Security forces) which is measured here by

Characteristics	N	%	LEI	PSC	Sig. p < .05
Sex					- 5 1
Male	908	55.67	1816	4540	r=0.61
Female	723	44.33	2892	36.5	r=0.81
Age					
25<35	623	38.20	1246	1557.	
35<45	436	26.73	872	5	$R^2 = 0.65$
45<55	322	19.74	966	1308	P<.05
55<65	148	9.07	592	3864	
65<75	102	6.25	204	444	
				255	
Residence					
Rural	323	19.80	1292		t=13.64
Urban	1308	80.20	1962		P<.05
Marital status					
Never Married	815	49.97	1222.	815	
Married	605	37.10	5	3025	R ² =0.63
Divorced	139	8.52	2420	347.5	P<.05
Widowed	72	4.41	417	288	
			360		
Educational status					
Primary school	947	58.06	1894	1420.	
Post Primary school	446	27.34	1115	5	R ² =0.67
Tertiary Institution	238	14.60	714	1338	P<.05
				952	
Monthly Income					
N5,000 <n25,000< td=""><td>725</td><td>44.45</td><td>1087.</td><td>1450</td><td>0</td></n25,000<>	725	44.45	1087.	1450	0
N25,000 <n45,000< td=""><td>432</td><td>26.48</td><td>5</td><td>648</td><td>R²=0.69</td></n45,000<>	432	26.48	5	648	R ² =0.69
N45,000 <n65,000< td=""><td>215</td><td>13.18</td><td>864</td><td>537.5</td><td>P< .05</td></n65,000<>	215	13.18	864	537.5	P< .05
N65,000 <n85,000< td=""><td>106</td><td>6.50</td><td>537.5</td><td>371</td><td></td></n85,000<>	106	6.50	537.5	371	
N85,000<105,000	86	5.27	318	387	
N105,000 and above	67	4.12	344	301.5	
			268		

Table 1. Public servants, Socio-demographics impact on Life Event stressors as determinant of Psychosomatic symptoms/ disorders (N = 1631).

Source: Fieldwork, 2007/2008.

(Holmes and Rahe 1967) life event inventory when a person experiences stress, he or she will likely try to reduce these unpleasant emotions.

Making an effort to reduce stress is called coping. It is when coping is unsuccessful, and the stress does not subside, that the individual may seek clinical attention for medical or psychological problems that have developed as a consequence of the constant physiological arousal caused by chronically persistent stressors.

Stressful life events clearly play a role in illness (Selye, 1974; Omoluabi, 1982, Majoroh, and Ewhrudjakpor 2004; Agoha B. C. and Ilobi, U., Psychiatric Hospital, Benin City, Nigeria, personal communication). But they do so in interaction with socio-demographic characteristics of the individual (pre-existing susceptibilities toward certain

disorders).

Table 1 shows statistically the impact of socio-demographics on life event stressors as they determine psychosomatic symptoms or diseases. In this study, persistent conflicts between inhabitants of the Niger Delta region and Nigerian Security forces. The stressors are loss of jobs or parents loss jobs, hostage taking of siblings, spouse, or relations, all forms of daily insecurity of life and property. The table of statistical analysis presented above does provide the necessary connections between socio-demographics, life event stressors and psychosomatic symptoms using correlation and t-test statistics. The results are interpreted with examples of life event stressors as they determine psychosomatic symptoms.

In this study gender as shown in table one, using the Pearson's product-moment correlation, is that males modestly reacts to life event stressors of loss of parents jobs or loss of jobs in the conflict ridden Niger Delta with PSC weighted score of 4540 resulting to correlation value of (r = 0.61, P < .05) with symptoms of tension headaches, itching, that results to painful sexual intercourse and may persist and cause impotence. Unlike females with PSC weighted scores of 3615 but a high correlation value of (r = 0.81, P < .05). Females react differently with symptoms of loss of appetite, persistent weeping, low mood, upset stomach, resulting to reactive depression. These results corroborate earlier studies (Chester, 1994; Rose, 1996; Onyeizugbo, 2008). Females are more susceptible than males to physiologically reacting to psychological stressors such as death of a loved one, collapse of courtship and several other stressful events like displacement. However, this does not mean that every single item in the Holmes and Rahe LEI have females reacting more than males. On some items males physiologically react more than females, such as loss of job. This result can also be situated in the Specific-Reaction theory which argued that differences exist genetically in the ways sexes respond to life event stressors. Thus, (Lacey, 1967) males respond differently than females to stressors in their own idiosyncratic way. This theory is supported by the concept of Hardiness which states:

As a constellation of three clinical personality characteristics- commitment, control, and challenge... persons high in hardiness easily commit themselves to what they are doing (rather than feeling alienated) generally believe that they can at least partially control events (rather than feeling powerless), and regard change to be a normal challenge or impacts to development rather than a threat (Kobasa and Puccetti, 1983).

This clearly reminds one of the biological masculinity and feminity of males and females respectively in the physiological attributes to withstand and relatively sustain stressors as they occur daily in life. Being female is reported to be a risk factor for common psychosomatic disorders (Chester, 1994; Majoroh and Ewhrudjakpor, 2004).

Also, the Multiple Regression analysis conducted on the data based on chronological age distribution and responses to the LEI and PSC, show that age positively impacts on LEI to produce PSC ($R^2 = 0.65$, P < .05), that is life event stressors of loss of parents or parents' loss of jobs and their displacement, do gets varied psychosomatic symptoms. Here, the younger respondents (25 < 45) reacts symptomatically with drunkenness, peptic ulcers, workers of age; 45 < 55, reacts with symptoms of migraine headaches, hypertension, and respondents age of 65 and above reacts with symptoms of constipation, backaches, bad headaches. Here, the strongest effect is is from age bracket (45, <55 years) with partial correlation of (R = 0.76, P < .05). This result support the fact that youths in this region are reckless and careless with life events, hence they engage in risky ventures like hostage taking, cultism, prostitution and brigandage (Okpowo, 2002; Afolabi, 2005; Ewhrudjakpor and Ogege, 2008). In contrast, the elderly people above 65 years have gone through their own LEI and PSC, have literally seen life, its ups and downs, and so are hardly perturbed by the vicissitudes of daily activities. This of course, is not same with ages 35 less than 55; the prime of life, building career and family, planning retirements, stressors from conflicts during this period ignites somatic symptoms, and if not properly handled results to psychosomatic disorders.

The place of residence that is whether one lives in a rural settlement or urban town does facilitate the impact of stressors on somatic symptoms. Rural slums or urban overcrowding has been said to be stressors on residents and do result to reaction such as depression (Majoroh and Ewhrudjakpor 2004). This present study corroborates the fact that residents of rural areas experiencing conflicts in the Niger Delta, suffer temporary loss of job, houses demolished and so they are refugees in their own land. Their symptoms usually are; itching, tension headaches upset stomach, while those in urban areas have the pressure of receiving the displaced relatives which affects their budgets causing migraine headaches, itching, peptic ulcer, hypertension and finally depression with its t-test result of (t = 13.64 P < .05).

Stressors like loss of job or spouse's job does impact on mental and physical health, depending on marital status. For instance, data analysed with multiple correlation statistics revealed that married respondents cope better than widows, or divorced respondents. Infact, while married respondents react with symptoms of tension headaches only, widows suffer from upset stomachs, tension headaches and peptic ulcers, sometimes it develops to persistent low mood and results to reactive depression among widows and 'divorcees'. This according to previous studies (Adomakoh, 1975; Onveizugbo, 2008) is expected due to differential rate of daily pressures and role conflicts for example working wives or husbands and people who are single. Again, widow or widower do bear alone earlier shared responsibilities which subsequently stress them, and if not managed carefully results to psychosomatic disorder. The result in this present study supports this fact ($R^2 = 0.63$; P < 0.05). This modest Multiple Regression coefficient indicates that other extraneous variables contained in the concept of hardiness do moderate the impact of marital status as stressors leading to psychosomatic disorders.

Education is learning throughout life better ways of doing things or living. There fore the educational status of people do facilitate or de-facilitate how they cope with stressors in other to avoid discomforts. It was expected that the more educated a person is the better he or she will manage living, but results here show the contrary. In this study, lowly educated civil servants reacts to stresssors like loss of job or parents' loss of job or displacement with chronic drunkenness, peptic ulcers and upset stomachs, while the highly educated react with symptoms of itching, migraine headaches, forgetfulness, backaches, hypertension and tension headaches, when these symptoms persists it results to temporary impotence. This present study reveals this through the Multiple Regression analysis (R^2 = 0.67; P < 0.05) that is to say, respondents (238 or 14.60%) of the study sample had LEI weight score of 714 and a positively correlated weighted score for PSC as 952 which is significant against LEI and PSC weighted scores from respondents with primary school or post primary school educational status, this confirmed earlier studies (Adomakoh, 1975; Afolabi, 2005, Ewhrudjakpor, 1996).

Furthermore, the economic statuses of people have huge impact on mental, physical and social aspects of their life. Studies (Omoluabi, 1982; Cobb, 1974; Majoroh and Ewhudjakpor 2004; Weich and Lewis, 1998). Poverty, economic poverty brings along with it a lack of opportunity, reduced availability and accessibility to resources and a greater likelihood of experiencing difficult events the resultant distress may manifest in a variety of presentations including emotional status such as low mood and sadness, frustration and regrets and if not properly managed can lead to depression or hypertension because many individuals may present with physical symptoms for which there is no identifiable organic cause. Poverty, acting through economic stressors such as unemployment is more likely to precede mental illnesses such as depression, thus making it significant risk factor.

This present study findings show that economic status of respondents shapes the reactions of respondents to stressors of loss of job, or parents' loss of job or displacement as a result of persistent conflicts in the Niger Delta region. In this region there are poor, middle class, and the rich. Symptoms of the low economic class respondents are itching and bad headaches, for the middle economic class the symptoms are upset stomachs, tension headaches, cramps and peptic ulcers, while symptoms reported by the high economic class are tension headaches, backaches, migraine headaches, hypertension and feeling of suicide (see Table 1 for the multiple regression analysis). This supports the economic downturn to correlate positively with psychosomatic disorder, $(R^2 = 0.69; P < 0.05)$. This finding is, corroborated by earlier studies (Lazarus, 1966; Omoluabi, 1982; Weich and Lewis 1998). Unemployed persons and those who fail to gain employment have more depressive symptoms than people who find a job. Further, employed persons who have lost their jobs are twice as likely to be depressed as persons who retain their jobs. Also high economic status people who lost their jobs are twice more likely to be depressed than low economic status people. This also can be situated in the Specific Reaction model,

where loss of job or poverty subsequently leads to depression.

Conclusion

The relationship between stressors as a result of conflicts causing loss of jobs, lives and displacement resulting to psychosomatic symptoms ranging from itching headaches. upset stomachs, drunkenness. to hypertension and feeling of suicide are complicated by the vagaries of human nature and difficulties in the measurement of psychosomatic symptoms. However, past studies have attempted to find this link between 'Mind and Body'. This present study looked at Sociodemographics differential impact and stressors to bring about psychosomatic disorders if the stressor and somatic symptoms persist. The findings in this study; that socio-demographic characteristics (sex. age. residence. marital status, educational and economic status) does significantly pose as effective facilitators for stressors to bring on somatic systems on individuals, corroborates previous studies. Against this background therapeutic measures should be anchored on socio-demographics in order to alleviate or eliminate sufferers' pain from psychosomatic disorders.

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