Influence of Personality, Job-Related Tension and Marital Status on Insomnia among South-Eastern States of Nigeria Universities' Lecturers

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DOI: 10.56201/ijssmr.v9.no4.2023.pg34.44

Abstract

In a bid to ascertain factors responsible for insomnia, this study investigated influence of personality, job-related tension and marital status on insomnia. A total of two hundred and fifty-five (255) participants comprising one hundred and forty-nine (149) males and one hundred and six (106) females between the ages of 33-67 years, with a mean age of 47.91 and standard deviation of 5.71 were sampled for the study. They were sampled using homogenous purposive sampling technique and accidental sampling technique from the population of south-eastern Nigeria states universities' lecturers. Job-related Tension Scale (JTS) by Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964), Big Five Inventory (BFI) by John, Donahue and Kentle (1991), and Insomnia Severity Index (ISI) by Bastein, Vallieres and Morin (2001) were used in this study. A cross sectional survey design was adopted, while Three-Way Analysis of Variance F-Test was applied as the statistical test to analyze the scores of the participants. The findings revealed that personality yielded a significant outcome of F (1, 248) = 134.12, p< .001 level of significance. The second hypothesis tested was also accepted and job-related tension yielded a significant outcome of F (1, 248) = 32.14, p< .001. The third hypothesis tested was also accepted and marital status yielded a significant outcome of F (1, 248) = 4.77, p< .03. The fourth hypothesis tested was also accepted and there was significant interaction effect for job-related tension and marital status F (2, 248) = 11.47, p< .001. Recommendations were made.

Keywords: *Personality, Job-related tension, Marital status, Insomnia*

Introduction

Insomnia is the most prevalent sleep disorder and contributes to considerable personal suffering and social cost. The term insomnia is derived from the Latin word "insomnus", which literally translated means "no sleep". According to Ohayon (2002), insomnia is the experience of inadequate, insufficient or nonrestorative sleep despite ample time in bed. Diagnostic and Statistical Manual of Mental Disorders Fourth Edition and Test Revised Fourth Edition (DSM-IV & DSM IV–TR) of American Psychiatric Association (1994) and (2000), defined insomnia as difficulty in initiating or maintaining sleep or nonrestorative sleep persisting for longer than one

month, and causing clinically significant distress or impairment in social, occupational, or important areas of functioning. Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-V) renamed primary insomnia to insomnia disorder, thereby categorized primary insomnia into sleep-wake disorders (American Psychiatric Association, 2013). Similarly , Ensrud, Stone, Blackwell, Sawaya, Tagliafern, Diem and Grady (2009) defined insomnia as sleep disturbance which includes difficulties going to sleep, remaining asleep, having a sound sleep pattern, or wakening.

However, insomnia according to Roth (2003) can be classified as transient, acute, or chronic. Transient insomnia according to Roth (2003) lasts for less than a week and it can be caused by changes in the sleep environment, timing of sleep, severe depression or by stress. Other etiological factors of transient insomnia could be an excessive environmental noise pollution and extreme temperatures (Roth, 2003). For example, in Nigeria especially in the eastern part, where the use of generators is becoming a phenomenon as a result of public power failure, people are at greater risk of experiencing transient insomnia, though invariably some people may find it acceptable to sleep under such noisy environment.

The second type of insomnia according to Roth (2003), is acute insomnia, which is the inability to consistently sleep well for a period of less than a month. According to Spielman, Caruso and Glovinsky (1987), acute insomnia develops as a result of an interaction between an individual's trait vulnerability to sleep difficulties and specific precipitating circumstances that introduce stress into the system such as life events and abrupt change in sleep schedule. For some individuals, the acute insomnia episode is temporary and their sleep normalizes shortly after the stress subsides while for a subset of individuals, the acute insomnia becomes chronic when it is reinforced by various maladaptive psychological and behavioural coping strategies that are developed in response to the sleep difficulty such as spending an excessive amount of time in bed, going to bed earlier in the evening, and getting out of bed later in the morning to increase the opportunity to sleep (Perlis, Giles, Mendelson, Bootzin & Wyatt, 2007).

The third type of insomnia as identified by Roth (2003) is chronic insomnia, which may last for months or years, and can have profound effects on health, quality of life, productivity and safety. Chronic insomnia can be caused by a primary disorder such as depression, and people with high level of cytokines (molecular messengers between cells) are more likely to have chronic insomnia (Simon, 2008).

Insomnia however, according to Buysse (2008) and Erman (2007) can be grouped into primary and secondary or comorbid insomnia. Primary insomnia according to World Health Organization (2007) can also be called idiopathic insomnia, and it is a sleep disorder not attributable to any medical, psychiatric, or environmental causes. To be classified as primary insomnia in a clinical sense, the patient must experience difficulty in falling asleep, difficulty in staying asleep or nonrestorative poor quality sleep (Riemann & Ulrich, 2002).

Secondary or comorbid insomnia on the other hand, is the insomnia caused by or associated with medical conditions, medications or substances (Erman, 2007). Those conditions that can cause comorbid insomnia include: Alzheimer's disease, hypertension, anxiety, arthritis, asthma, attention deficit hyperactivity disorder (ADHD), chronic pain, depression, heartburn, heart disease, menopause, hyperthyroidism, parkinson's disease, post traumatic stress disorder (PTSD), prostrate enlargement that causes an increase in frequency of night time urination, sleep apnea and other sleep disorders (Earman, 2007).

However, insomnia however, whether transient, acute, chronic, primary or comorbid involves the inability to fall asleep or try to stay asleep as long as desired (Golub, 2012; Roth, 2007).

Several theories like Hyper-arousal theory, Integrative theory, and Three-factor theory were reviewed on insomnia, but this study anchored on Three-factor theory which maintains that insomnia results through three factors namely: the predisposing factors; the precipitating factors; and perpetuating factors (Spielman, Caruso & Glovinsky, 1987). The predisposing factors which include: a genetic predisposition to insomnia, depression, anxiety, psychological coping styles, learned habits, the inability to relax, and age; the precipitating factors which include: series of stressful life events, psychiatric or medical illness, environmental disturbances, or certain kinds of drugs used to treat unrelated medical or psychiatric condition; and the perpetuating factors which include: mentally conditioned anxiety or arousal upon going to bed, poor sleep hygiene, a chronically stressed life style, drugs used to treat medical conditions, alcohol, sleep pills, caffeine and tobacco (Healey, Kales, Monroe, Bixler, Chamberlin & Soldators, 1981; Borkovec, 1982; Spielman & Glovinsky, 1991). Therefore, the independent variables : personality is subsumed under predisposing factor, job-related tension under precipitating factor, and marital status under perpetuating factor.

In Nigeria especially in south-eastern part, stress among academic staff of tertiary institutions is one of the factors that have disrupted smooth operation of academic activities. It appears that academic staff of state owned universities may suffer a lot of academic stress due to comparatively poor work environment, poor staffing, lack of incentives, delayed of promotion, e.t.c. In most cases, while trying to develop research papers, prepare lecture notes for students for various courses, deliver lectures, conduct examinations, at the same time being pressurized to submit results in a limited time, also trying to stay in an academic environment with irregular electricity supply and raid access to internet may find it difficult to adapt. A lot of works that ought to have been done at school are carried home to meet up with the demands. As a result of this, those staff who may not survive under these conditions are faced with stress, which sometimes results to sleeplessness, hence insomnia. When they start experiencing this insomnia, may result to taking physical approach to ameliorate the sleeplessness by taking drugs like diazepam (Valium 5) which invariably has side effects on the users especially the dependence. These mind troubling issues motivated the researcher to investigate the possible contributions of personality (extraversion / neuroticism), job-related tension and marital status on insomnia.

Hence, the following hypotheses were tested

There will be a significant influence of personality (extraversion/neuroticism) on insomnia.
There will be a significant influence of job-related tension on insomnia.
There will be a significant influence of marital status on insomnia.
There will be an interaction effect of personality, job-related tension, and marital status on insomnia.

Method

Participants

A total of two hundred and fifty-five (255) participants comprising one hundred and forty-nine (149) males and one hundred and six (106) females between the ages of 33-67 years, with a mean age of 47.91 and standard deviation of 5.71, sampled using homogenous purposive sampling technique and accidental sampling technique from the population of south-eastern

Nigerian states universities' lecturers which are: Enugu State university of Science and Technology, ESUT; Abia State University, ABSU; Imo State University, IMSU; Ebonyi State University, EBSU; and Chukwuemeka Odumegwu Ojukwu University, COOU, formerly Anambra State University. They comprised of two hundred and forty-seven (247) Ibos, seven (7) Yorubas, and one (1) Niger-Deltan. They were all Christians except one (1) Muslim and one (1) traditionalist. They all have minimum of Masters' degree, while 46.7% (119) out of them have Doctor of Philosophy (Ph.D) in their various fields of endeavour.

Instrument

Three (3) sets of instrument were used in this study.

- ✓ Job-related Tension Scale (JTS) developed by Kahn, Wolfe, Quinn, Snoek and Rosenthal (1964) was used to measure the participants' level of Job-related tension.
- ✓ Big Five Inventory (BFI), developed by John, Donahue and Kentle (1991) was used in this study to measure extraversion and neuroticism dimensions of personality.
- ✓ Insomnia Severity Index (ISI) developed by Bastein, Vallieres and Morin (2001) was used in this study to measure the participants' severity level on insomnia.

Design/Statistics

A cross-sectional survey design was adopted as the basic design for this study. Also, Three-Way (2 x 2 x 2) Analysis of variance F-test was used as the statistical tool to analyze the scores of the participants obtained. This is because, there are three independent variables with two levels each [Personality: extraversion/neuroticism; Job-related tension: high/low; Marital Status: married/single] and one dependent variable [Insomnia].

Results

Table1: Summary table of means on influence of personality, job-related tension and marital status on insomnia.

Dependent Variable: Insomnia					
Personality Types	**Job-related Tension**	**Marital Status**	**Mean**	**Std. Deviation**	**N**
Extraversion	High Job-related Tension	Married Lecturers	21.7619	2.80963	63
		Single Lecturers	19.1818	3.91965	11
		Total	21.3784	3.10855	74
	Low Job-related tension	Married Lecturers	17.3478	3.32143	46
		Single Lecturers	18.8750	2.44609	16
		Total	17.7419	3.17230	62
	Total	Married Lecturers	19.8991	3.73161	109
		Single Lecturers	19.0000	3.06343	27
		Total	**19.7206**	**3.61620**	**136**
Neuroticism	High Job-related	Married Lecturers	27.8095	2.42871	63

	Tension		Single Lecturers	24.9375	3.04344	16
			Total	27.2278	2.79629	79
	Low related Tension	Job-	Married Lecturers	23.2250	2.11815	40
			Total	23.2250	2.11815	40
	Total		Married Lecturers	26.0291	3.21594	103
			Single Lecturers	24.9375	3.04344	16
			Total	**25.8824**	**3.20269**	**119**
	High related Tension	Job-	Married Lecturers	24.7857	4.00721	126
			Single Lecturers	22.5926	4.42249	27
			Total	**24.3987**	**4.15385**	**153**
	Low related Tension	Job-	Married Lecturers	20.0814	4.07349	86
Total			Single Lecturers	18.8750	2.44609	16
			Total	**19.8922**	**3.87913**	**102**
	Total		**Married Lecturers**	**22.8774**	**4.64310**	**212**
			Single Lecturers	**21.2093**	**4.18932**	**43**
			Total	22.5961	4.60460	255

From **table 1** above, the mean scores' table showed that lecturers with extraversion personality trait obtained a total mean of (X = 19.92) while those with neurotic personality disposition obtained a total mean of (X = 25.88). In the same vein, lecturers who are having high job-related tension obtained a total mean of (X = 24.40) while those with low job-related tension obtained a total mean of (X = 19.89). Furthermore, married lecturers obtained a total mean of (X = 22.88) while lecturers who are single obtained a total mean of (X = 21.21).

Meanwhile, married high job-related tension lecturers with neurotic personality trait obtained the highest grouped mean of (X = 27.81) followed by married low job-related tension lecturers with neurotic personality trait of (X = 26.03), neurotic personality trait lecturers who are single with high job stress of (X = 24.94) and neurotic personality trait lecturers who are single with low job stress of (X = 24.94). Furthermore, married high job-related tension lecturers with extraverted personality trait obtained a group mean of (X = 21.76), extraverted single lecturers with high job-related tension of (X = 19.18), followed by extraverted single lecturers with low job-related tension of (X = 18.8) and married extraverted lecturers with low job-related tension obtaining the lowest group mean of (X = 17.35). Thus, a high mean indicates that the participants are experiencing insomnia while a mean as low as 7 and below indicates absence of insomnia among the participants. So, a mean above the norm (15-21 and 22-28) was the basis for judging participants of having moderate, severe or clinical insomnia as the case maybe.

Therefore, lecturers especially those with neurotic personality trait exhibited severe clinical insomnia with regard to their levels of job-related tension and marital status where as those with extraverted personality traits exhibited rather moderate clinical insomnia with regard to levels of

job-related tension and marital status. It means that lecturers irrespective of personality disposition, job stress and marital status levels are candidates of insomnia.

Table 2: Summary table of 3-Way ANOVA F-test on influence of personality, job-related tension and marital status on insomnia

Dependent Variable: Insomnia

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	3476.520[a]	6	579.420	75.278	.000
Intercept	69857.194	1	69857.194	9075.801	.000
Personality	1032.358	1	1032.358	134.123	.000
Job-related tension	247.377	1	247.377	32.139	.000
Marital Status	36.674	1	36.674	4.765	.030
Personality * Job-related tension	.370	1	.370	.048	.827
Personality * Marital Status	.460	1	.460	.060	.807
Job Stress * Marital Status	88.313	1	88.313	11.474	.001
Error	1908.877	248	7.697		
Total	135584.000	255			
Corrected Total	5385.396	254			

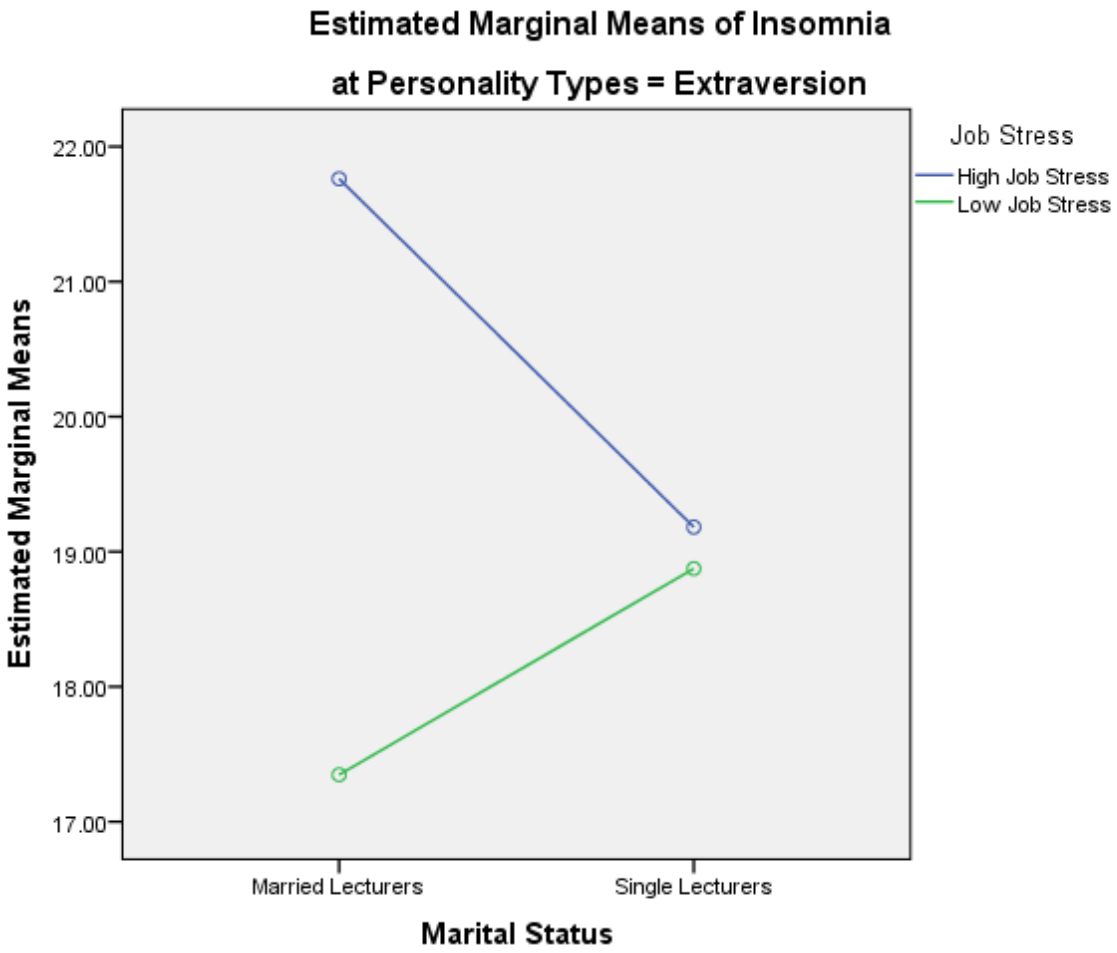
a. R Squared = .646 (Adjusted R Squared = .637)
b. Computed using alpha = .05

A 2x2x2 ANOVA with self rated personality (extraversion and neuroticism), job-related tension (high and low) and marital status (married and single) as between subject factors revealed that: the main influence of personality yielded an *F* ratio of $F(1, 248) = 134.12$, $p = .001$, indicating that personality significantly influenced lecturers experience of insomnia with neuroticism lecturers having ($M = 25.88$, $SD = 3.20$) significantly greater than extraversion lecturers ($M = 19.72$, $SD = 3.62$).

Also, the main influence of job-related tension yielded an *F* ratio of $F(1, 248) = 32.14$, $p = .001$, indicating that job stress significantly influenced lecturers experience of insomnia with lecturers with high job-related tension having ($M = 24.40$, $SD = 4.15$) significantly higher on insomnia than those with low job-related tension ($M = 19.89$, $SD = 3.88$).

In the same vein, the main influence of marital status yielded an *F* ratio of $F(1, 248) = 4.77$, $p = .03$, indicating that marital status significantly influenced lecturers experience of insomnia with married lecturers having ($M = 22.88$, $SD = 4.64$) significantly higher than lecturers who are single with ($M = 21.21$, $SD = 4.19$).

However, there was significant interaction effect for job-related tension and marital status, $F(2, 248) = 11.47$, $p = .001$, but not for the 3 factors, indicating that there are main effects of the variables under discuss.



Discussion

The findings of this study revealed that the first hypothesis tested which stated that, there will be a significant influence of personality on insomnia was accepted. This shows that personality significantly influenced lecturers' experience of insomnia with neurotic lecturers having significantly greater manifestations of insomnia than the extroverted lecturers.

Therefore, having observed the differences that exist between the extroverts and neurotics on the manifestation of insomnia, there are possible factors that may have brought about these differences. One of the factors is positive life pattern. Extroverts enjoy being with people full of energy, often experience positive emotions, engage in frequent activities, entrepreneurship, active, talkative, cheerful and optimistic in nature which help them to view their environmental stimuli as mainly being positive thereby energizing them to adjust to any environmental situation, unlike their neurotic counterparts who are characterized by anxiety, fear, moodiness,

worry, envy, frustration, jealous and Loneliness thereby promoting unconducive environment in any situation they may find themselves in.

Another factor that may have brought about the differences between extroverted lecturers and neurotic lecturers on the manifestations of insomnia is negative mind set. The extroverts tend to think positively which predisposes them to perceive life and relationship with others as being interesting while those with neuroticism trait are mostly preoccupied with negative perception of self and others.

The second hypothesis tested which stated that, there will be a significant influence of job-related tension on insomnia was also accepted. This shows that job-related tension significantly influenced lecturers' experience of insomnia with lecturers with high job-related tension having significantly higher manifestations of insomnia than those with low job-related tension.
Therefore, having observed that lecturers with high job-related tension are more vulnerable to the manifestations of insomnia than those with low job-related tension, there are possible factors that may have brought about the job-related tension. One of the factors is poor work conditions/environment. These include: heavy workload; infrequent rest breaks; long heavy work hours especially during examination period, hectic and routine tasks that have little inherent meaning; lack of participation by workers in decision making; advancement or promotion; job insecurity and lack of opportunity for growth; crowding; and noise. As workers try to perform their duties in such work conditions, may be stressed up which invariably associate with increased absenteeism, tiredness, and intentions by the workers to quit their job which may also affect their sleep patterns.
Also, job-related tension may have emanated through the misfit of job and man. In some of public offices, some workers were employed in some areas they know little or nothing about, of which higher institutions of learning are not left behind. Those who are oblivious of what job demands are tend to be anxious and stressed, of which some may even want to quit their job as a result of incompetence. This invariably may alter their sleep pattern for they may end up ruminating over their lapses.
Poor remuneration is another factor that may have precipitated job-related tension. Some people work for nothing. What they are being paid is not commensurate with the services rendered. This may result to unhappiness thereby feeling cheated, becoming anxious and tensed which invariably may disrupt their sleep pattern, hence insomnia.
Another factor that may have brought about job-related tension is daily hassles.
Some people cover a lot of distance to their offices. Bad road networks and traffic jam can choke people up as they try to report to their various offices. When they eventually get to their offices, maybe stressed up thereby find it difficult to settle down, and when they do, will be hurrying to go back and sometimes take some office work home in order to cover up thereby jeopardizing their sleep.
The third hypothesis tested which stated that, "there will be a significant influence of marital status on insomnia" was also accepted. This shows that marital status significantly influenced lecturers' experience of insomnia with married lecturers having significantly higher manifestations of insomnia than lecturers who are single.

Therefore, having observed that married lecturers were more prone to the manifestations of insomnia than their single counterparts, there could be a factor that brought about the difference. Such factor is marital commitment. Marriage is a covenant as it is entered into by agreement and

vows made by the parties when entering are for life, hence commitment. At the time of exchange of vows and the pledge to be committed, the man and woman involved are both required to be psychologically balanced, physically fit, and emotionally stable as recorded by Ani (2009). In an attempt for the married lecturers to meet up with the family demands such as provide shelter and food on the table for their spouses and children, pay up some bills, together with the stress experienced at workplace, tend to be anxious, restless, tensed which sometimes result to sleeplessness, hence insomnia.

The fourth hypothesis tested which stated that, "there will be an interaction effect of personality, job-related tension, and marital status on insomnia" was accepted. This shows that there was significant interaction effect only for job-related tension and marital status but not for the 3 factors, indicating that there are main effects of the variables under discuss.

Recommendations

The researcher hereby recommended Progressive Muscle Relaxation. Progressive Muscle Relaxation involves tensing specific muscle groups and then relaxing them to create awareness of tension and relaxation.

The researcher also recommended that workers should be well remunerated so as to put in their best in their jobs for high productivity.

Also, in public and private offices, both clinical and industrial psychologists should be employed to help assess people so as to ascertain if they are physically and mentally fit for certain jobs.

The managements of both the government and private owned institutions should endeavour to create enabling environment for their workers which will invariably enhance high productivity from their workers.

The universities management should establish staff friendly organization which will enable the staff to air their views as regards to their job which invariably reduces the tension about their job thereby enhancing high productivity.

Conclusion

Everyone needs good health for effective performance. As asserted by Tapan Ghosh and I quote,

"When character is lost, nothing is lost; when wealth is lost, something is lost; but when health is lost, everything is lost."

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