Stress Profile of Secretarial Administration Students in Nigeria

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Abstract
The purpose of the study was to investigate the relationship of some demographic variables to the experience of stress among trainee secretaries. Additionally, the prevalence and sources of stress among trainee secretaries were studied. Four hypotheses and two research questions were formulated for investigation. The study was a descriptive survey and employed the Student Stress Inventory developed by the researchers to garner the relevant data. A total of 100 participants (35 males and 65 females) drawn from the Department of Secretarial Studies, The Polytechnic, Calabar - Nigeria took part in the study. The respondents were drawn from all the grade levels of the ND and HND programmes and were aged between seventeen and thirty-five with a mean age of 24.6years. Results following the analysis of data indicate significant differences in stress levels among Secretarial Administration students due to gender and pre-training experience. Females seemed to experience more stress than their male counterparts while those with the relevant pre-training experience reported less stress than those without the relevant pre-training experience. However, stress among trainee secretaries was independent of their age and marital status. About 64% of the respondents found training for secretaryship as either extremely stressful or stressful. The major sources of stress to trainee secretaries were examination syllabuses too demanding in some courses and too much academic assignment to do each day while the least sources were campus living conditions, overcrowding in hostels and the consequences of engaging in too much social activities to the detriment of school work. Based on these findings some recommendations were made

Background
The factors responsible for stress among professional groups continue to be one of the major concerns of educators and psychologists the world over, it is in view of this concerns that one continues to find attempts to unravel the complex precipitants and correlates of stress as one of the major recurrent themes in social science research. Several researches which have been reported so far have concentrated on identifying the role played by such factors as organisational climate, work environment, cultural change, socio-economic factors and contradictions between manifest and latent functions and surface and deep structures of organizations (Trendall, 1989), among others in stress.

Early studies have concentrated on organizational and environmental variables because of the belief that these are the most effective precursors of stress. However, with time it became evident that organisational and environmental factors only

account for a small amount of stress experienced by workers. Even at that, different individuals exposed to the same stressful stimuli reported varying amounts of stress. Consequently, research to unravel the correlates and concomitants of stress shifted form organizational and environmental factors to the contribution of organismic variables (characteristics of the person) which lead to lowering of feelings of personal self-worth, of achievement, of effectiveness and of coping within one's professional role; hence studies of demographic and personality characteristics (Joe, 1985).

Stress affects the nation socially, politically, economically and more importantly, psychologically. Whoever and whatever is to blame for causing stressful school environments, it is not an overemphasis to say that the major cause is inherent in students themselves. These could be in the form of some problems students are facing or finding difficult to cope with or their inability to adjust to the demands of school work either due to their demographic background or other characteristics possessed by them.

Although studies like that of Joe (1985) have reported that certain demographic variables came into play in predicting stress, it is unfortunate that findings across studies are still contradictory, which makes it impossible to say categorically which biographical characteristic is most offending of the lot. It is evident from the foregoing that there are still problems, which demand research attention in this area.

Statement of Problem

In the recent past, there have been complaints about workers' low morale, absenteeism, low self esteem, lack of organizational commitment and of tired and frustrated workers. Perhaps, a more disturbing phenomenon is the professional, social and family life of the Nigerian worker. As observed by Ubangha (1997) these days, it is common to observe workers who were once highly motivated, dependable and effective flounder as they work longer hours but accomplish less, become inflexible, callously apply rules, discard creative solutions and replace their earlier enthusiasm and accountability with feelings of boredom, irritability, loss of will and an inability to mobilize interest and capabilities. In the course of time they become chronic clock watchers and complainers and engage in high-risk behaviours. Consequently, apart from their work lives, which deteriorate, their out-of-work and family lives also suffer. They come home emotionally drained and jittery and prefer to be left alone than share time with their families. All these are indications that these workers are stressed and sometimes burned out.

Despite the deleterious cognitive, affective, behavioural and physical effects of stress on the quality of life of secretaries, there remains noticeable paucity of empirical research in this area directed at this professional group in Nigeria. This study is aimed at filling the knowledge gap. It is an exploratory study aimed at determining significantly related demographic variables to stress among secretaries at the point of training.

Theoretical Foundations

Concept of stress: Defining and explaining what stress is, has been a hazardous venture to social science researchers and management practitioners over the years,

with the effect that many studies of stress fail to give a specific definition of the term. In his survey of several studies, Duckworth (1985) found problems of definition and Beehr and Franz (1987) noted that there is a lack of agreement among researchers on the definition of stress.

A critical review of the extant literature shows that stress researchers over the years have employed one of the three theoretical approaches to the definition of stress (Cox, 1978), The first approach which is usually referred to as the Engineering Model (Hinkle, 1974) essentially defines stress in terms of external environmental stimulus characteristics wherein stress results from environmentally exerted pressures. A second approach, known as the Physiological Model (Defrank and Straup, 1989) defines stress in terms of individual emotional states in view of stress - induced physiological responses within the individual although as Boyle and Katz (1991) rightly asserted, many of the concomitant intra-individual changes are partly psychological and affective in nature. The third approach, often referred to as the interactional/ transactional perspective (Handy, 1986) typically defines stress as an interaction variable emphasizing the relationship between individuals and their environment. Researchers employing the third approach conceptualize stress as a product of the complex transaction between individual needs/resources and environmental demands and constraints.

Some of the widely acclaimed definitions of stress include those of Kyriacou and Sutcliffe (1978), Ejiogu and Aderounmu (1989), Spielberger (1979), Trendall (1989) and Selye (1976). Selye (1976) defined stress as a response to a challenging demand or event. To him, it is the body's non-specific responses to any demand placed on it, whether pleasant or not. On their part, Ejiogu and Aderounmu (1989) noted that the use of the word 'stress' has evolved to denote various things over the years. According to them, it was used in the seventeenth century to refer to hardship, straits, adversity, or affliction but in the eighteenth and nineteenth centuries, its use had expanded to cover force, pressure, strain or strong effort. To Spielberger (1979) stress is a psychological process involving a stimulus, which is perceived as ego threatening and reacted to with apprehension.

Employing an interactive model of stress, Trendall (1989) conceptualized stress as a multi-factorial concept referring to the contribution of factors within the individual, the organisation and the wider society which lead to lowering of feelings of personal self worth, of achievement, of effectiveness and of coping with one's professional roles. He recognized the positive aspects of stress, which many researchers failed to acknowledge pointing out that stress has motivational aspects, and could contribute to effectiveness. To Mitchel (1983: 278) stress is an adaptive response to external events or situations that place extreme psychological and physical demands on the individual. Like Trendall, Gmelch (1988) has argued that stress has its positive and motivational aspects and is not always unpleasant, harmful and negative. In his view, besides danger, stress always signals opportunity.

Contributing to the burgeoning literature, Kyriacou and Sutcliffe (1978) assert that stress is a response syndrome of negative affects (such as anger, anxiety and depression) usually accompanied by potentially pathogenic physiological and biochemical changes (such as increased heart rate) resulting from aspects of the individual's job

and mediated by the perception that the demands made upon the individual constitute a threat to his self esteem or well-being and by coping mechanisms activated to reduce the perceived threat. To them therefore, stress is a response syndrome of negative affect mediated by threat appraisal and coping mechanisms. This conceptual approach has been empirically supported by data provided by Krohne (1990) and Ormel and Wohlfarth (1991). Lazarus (1990) equally implicated cognitive appraisal as a mediating variable while Eysenck (1991) found that introverted individuals compared with their extroverted counterparts tended to perceive negative affect at lower stimulus intensities.

Given the role of cognitive appraisal, it is evident that stress reaction are not solely the result of external sources but are determined to a large extent by the individual's perceptions and interpretations of such stimuli, as well as their coping mechanism (Boyle, Borg, Falzon and Baglioni, 1995). Each of the theoretical approaches has been subjected to critical appraisals and intense reviews. For example, Kyriacou and Sutcliffe (1978) after an in-depth study of the engineering approach concluded that the model provides an insufficient account of the interpersonal perceptual and affective processes involved in stress reactions. With respect to the Kyriacou and Sutcliffe's approach, Brener and Bartell (1984) assert that when they conducted a LISREL confirmatory Factor Analysis of the Kyriacou and Sutcliffe conceptual model, they failed to verify the proposed structural relationships.

From the above review, it is evident that there are many definitions of stress and approaches to stress research and management (Esherick, 2005;Otis, 2005) While some focus on the characteristics of the environment, others on subjective experiences in the perception and appraisal of situations, still others concentrate on the individual's stress response and. personality types (kerwin, 2007) Whatever the orientation, the following salient points emerge:

Stress refers to an imbalance in an individual's body homeostasis resulting from the condition of his environment, social and working. It has both positive and negative aspects.. The level of stress experienced by an individual is mediated by his/her cognitive appraisal of the objective threat, the individual's coping mechanisms and his personality disposition.. The dynamic relationship between personal and organisational factors in the stress cycle is much more complex than a simple goodness of fit between stressors, perceptions, response and consequences.

Sources of stress to students

Over the years, various researchers have attempted to identify stressors in the school environment. Some of the sources of stress to students are examinations, separation from parents, coping with educationa tasks and others,

A school examination is the method or process of evaluating the understanding and proficiency of a student in what he or she learnt within a given time interval. Of all the stressors in a school environment, Omoluabi (1985) identified taking examination as the greatest single stressor. He wondered why examining learning, which is the major job of a student, should be stressful and proposed two principal factors which make examinations stressful. The first according to him is the uncertainty factor. This relates to some aspects of examinations which cannot be reliably predicted and

include such aspects as questions to be asked, the state of the student's health during the examination and most importantly the result of the examination. The second is the "failure consequences factor." This relates to the performance - outcome in an examination. Performance outcome usually gives indication about the levels of a student's academic achievement and (partially) intelligence (Omoluabi, 1985: 74) and also indicates the future economic and social positions of the student. Stress is associated with performance outcome because only one of two levels is attainable, that is, success or failure. Failure outcome is a source of stress because of its consequences in relation to what it indicates or implies. The consequences of failure negate the student's ego - valued need like need achievement (Maslow, 1954; McClelland. 1961) and self worth (Rogers. 1961). It is the perception of this negation or ego-threat that Spielberger (1979) classically identified as the actual source of stress.

Odebunmi (1980) has identified separation from parents to settle in the school for the first time as a major source of stress to students. Most secondary school students in Nigeria are day students who go to school each day from the comfort of their homes. Leaving the comfort of such homes, the regimented and highly structured living of the secondary school to a new, strange environment of the higher institution with all its freedom and unstructured living could be very stressful to new students. The problems are usually associated with how to handle the new found freedom and adjust to a new a course, neighbours, friends, room and classmates and new teachers whose pedagogy is often strange, unfamiliar and subject-matter centered with little or no regard for the learners.

Another potential source of stress to students is how to cope with educational tasks such as reading assignment, homework, seminars, lectures, tutorials, field trips and term papers. These activities could be very tasking to the students not only in terms of financial outlays but also their demands on time and emotional and physical investment. In his extensive study of stress in school environment, Spielberger (1979) has established that coping with educational tasks and moving from lower to higher levels of the school system are major stressors to students.

In developing the Student Stress Inventory, Joe (1985) identified twenty sources of stress to students. These potential stressors emanated either from. the self, other students, teachers, the nature of the classrooms and school environment or subject-matter content. Sources relating to the self as a student include difficulties understanding academic work, lack of concentration outside class when studying, the consequences of engaging in too much social activities to the detriment of school work, little knowledge of standard of work required by lecturers and difficulty making own notes from books, journals and lectures.

Potential stressors emanating from other students include noisy students in class causing distractions, friends, and colleagues getting higher marks for written assignment and attitudes and behaviour of some other students. Stressors originating from the learning environment include poor school facilities (such as books, materials and equipment), relevance of courses being studied, inadequate facilities for private study, examination syllabuses too demanding in some courses, too much work to do, no time to relax between lectures, no enough time to prepare for lectures and campus living conditions and overcrowding in hostels. Those relating to lecturers

include too much academic assignments to do each day, lecturers making too many extra demands on their students and lack of sufficient useful career advice and guidance. Consequences of letting down parents or guardians could also be stressful to students.

Cox (1978) has categorized the effects of stress into five broad groups namely:-

(i) Subjective effects such as anxiety, apathy, fatigue, depression, nervousness, irritability and low self-esteem,
(ii) Behavioural effects, namely:-impulsive behaviours, excitability, restlessness and flagging sexual interest,
(iii) Cognitive effects like poor information processing, loss of memory and vacillation.
(iv) Physiological effects, example, increased glucose, heart rate, blood pressure, sweating, difficulty in breathing and splitting headache.
(v) Organizational effects such as absenteeism, turnover, grievances and high occupational accident rates.

Ejiogu and Aderounmu (1989) accepted this classification and identified the physiological signs of stress to include quick and loud pounding of the heart, perspiration and tightening of the muscles. The organizational category was exemplified in terms of its disruptive effects on organizational effectiveness such as can be identified through low productivity. Kyriacou and Sutcliffe (1977) and Cooper and Marshall (1976) identified the manifestations of stress as physical (peptic ulcers, cardiovascular diseases), psychological (depression, anxiety), or behavioural (deterioration in work performance, deterioration in interpersonal relations). Joe (1985) identified the major symptoms of stress as nervousness, headache, loss of voice, fear, frustration, panic, tension and heart beating fast, acid in the stomach, cold sweat, depressive mood, unable to cope, exhaustion, increased blood pressure, anger and anxiety.

Diagnosis of stress

Over the years, three major types of assessment procedures have been employed in diagnosing stress in people. These are self-report by the client; direct observation of behaviour and physiological measures.

Self report by the client comprises of a variety of techniques. They include clinical interview, self-monitoring records and a variety of written checklists and inventories. The Stress-Arousal Checklist (SACL) (Mackay, Cox, Burrows and Lazzerini, 1978), the Student Stress Inventory (SSI) developed by Joe (1985), the Hodges and Felling (1970) Stressful Situations Questionnaire (SSQ) are some of •the examples of inventories designed to measure stress or stressful situations.

Direct observation of stressful behaviours can be conducted in naturalistic situations (example, home, school, playground, residential institutions) by parents, teachers, institutional personnel or special observers. Observational aids such as checklists, rating scales and daily schedules may be employed. However, it must be noted that such observations are subject to several weaknesses. Example, Anastasi (1982: 485) points out that the observer's presence may influence the client's

behaviour, the observer's own view-point may bias his or her own perception of the behaviour and the observation period may miss critical behaviours.

Recently, physiological measures have been employed in the assessment of stress levels of individuals. Various physio-psychological machines and equipment are now available for the measurement of various indicators of stress. Physiological measures provide supplementary objective data in the assessment of certain conditions such as cardio vascular (blood pressure), gastric (stomach acidity) sexual (penis circumference, vaginal blood volume) and cerebral (EEG, evoked electrical responses).

Hypotheses tested

(1) There would be no significant differences in stress among trainee secretaries due to their pre-training experience.
(2) There would be no significant gender differences in the stress level of trainee secretaries.
(3) The level of stress among trainee secretaries would be independent of their marital status.
(4) There would be no significant age differences in stress among trainee secretaries.

In addition to the above, the following research questions were investigated: (a) What is the rate of prevalence of stress among trainee secretaries? What are the major sources of stress to trainee secretaries?

Methodology

Research Design: This is a descriptive survey as it involves the collection of extensive and cross sectional data for the purpose of describing and interpreting the existing situation in a Nigerian tertiary institution. Best and Kahn (1989) agree that descriptive research is concerned with conditions or relationships that exist, practices that prevail, beliefs, point of view, attitudes that are held, processes that are going on, effects that are being felt, or trends that are developing.

The independent variables in this study are students (trainee secretaries) biographical characteristics of sex, age, marital status and pre-training experience. While the dependent variable is the stress level of trainee secretaries. The independent variables would be related to the dependent variable to determine if the level of stress among secretary trainees is independent of their biographical characteristics.

The research area is the Polytechnic, Calabar. The Calabar Polytechnic, established in 1973 and wholly owned by the Cross River State Government has a student population of about 5,000 spread over seven schools - Education. Engineering. Applied Sciences, Business and Management, Communication Art, Environmental Science and System Sciences. The study was however restricted to the Department of Secretarial Studies in the School of Business and Management.

Population, Sample and Sampling Technique

The target population of the study is the 270 Secretarial Studies students at the Polytechnic. Calabar. The subjects for the study consisted of Secretarial Studies Students from ND I and II and HND I and II. Through stratified random sampling,

about thirty students were selected in each class for study.In selecting the participants, a comprehensive register of all students in the Department of Secretarial Studies was obtained. The students, who were already classified according to grade level (ND I, II, HND I, II) were then categorised according to sex (male and female). Each and every student was listed alphabetically (according to class and sex and code numbered). Thirty students were then selected from each grade level by the use of a table of random numbers to reflect the proportion of each gender to the population of students in that grade level. The initial sample therefore consisted of 120 students (40 males and 80 females) drawn from ND I and II and HND II and I. However 106 students comprising 36 males and 70 females returned duly completed questionnaires. Five questionnaires were either incorrectly completed or had incomplete data while nine were not returned. A return rate of 88% was considered adequate for a survey research.

On coding the data generated, some spuriously high and low stress scores were observed. To forestall the effect of statistical regression and a few highly skewed scores unnecessarily tilting the results, Winer's (1971) recommendation for handling outliers was applied. This led to the elimination of the highest 2% of the stress scores and a compensatory 2% of the lowest scores. Thus a total of six subjects were eliminated by the application of this criterion. The final sample therefore consisted of 100 subjects distributed according to grade level and sex as shown in table 1. The subjects were aged between seventeen and thirty-five years with a mean age of 24.6 and a standard deviation of 7.28 year

Table 1: Summary of the Sample by Grade Level and Sex

Level	Gender		Total
	Male	Female	
NDI	05	20	25
NDII	12	13	25
HNDI	09	16	25
HNDII	09	16	25
TOTAL	35	65	100

Instrumentation

The psychometric instrument used to gather the relevant data was the Student Stress Inventory (SSI). The inventory consisted of the following sections:

Section one (demographic data). This section sought to generate information about students' demographic characteristics of sex, age, marital status, grade level and pre-training experience. Respondents were required to check (√) one of a number of alternatives in respect of each variable. Sex was categorized into male and female. Age was categorized into three age brackets - 20 years and below, 21 -30 years and 31 and above. The variable 'pre-training experience' was classified into those who

had never worked as a typist before admission into the programme and those who had worked at least for one year as typist before their admission into the Polytechnic. Marital status was categorized into single, single parent, married, separated, divorced and widowed.

Section Two: This section contained twenty sources of stress to students. The respondents were required to rate each source of stress on a four - point scale of No stress at all, Slight stress, A lot of stress or Extreme stress. The twenty sources had earlier been validated and used among Nigerian students by Joe (1985).

Section Three: This section contained only one item which required the respondent to rate himself or herself on how stressful he or she feels as a student on a four-point Likert-type scale of not at all stressful, slightly stressful, stressful and extremely stressful.

Section Four: This section partly contained the stress subscale of the Stress-Arousal Checklist (SACL) developed and standardized by Mackay, Cox, Burrows and Lazzerini. (1978). The subscale consists of eight negative adjectives and ten positive adjectives commonly used to describe one's psychological experience of stress. In the first part, the respondent is required to rate each adjective in terms of the intensity of his or her feelings about the adjective. For the positive adjectives, the double plus (++) and plus (+) ratings are scored 1 and the question mark (?) and minus (-) rating are scored 0. For the negative adjectives, the question mark and minus rating are scored 1 and the plus and double plus ratings are scored 0. The stress scores range from 1 to 18 in part one. Higher scores reflect more stress.

In part two of this section, the respondent is required to rate how frequently during the semester he/she feels in the ways described by the eighteen adjectives on a five point scale of never, rarely, about once a day, or many times a day. For the positive stress adjectives, never, rarely, about once a week, about many times a day are scored 1,2,3 and 4 respectively while the negative adjectives are reverse scored. In part two the stress scores range from 18-72. Higher scores reflect more stress. The total score is the sum of parts one and two and ranges from 18 to 90. Several studies (Mackay, Cox, Burrows and Lazzerini, 1978; McCormick, Walkey and Taylor, 1985; for example), have reported evidence of the internal consistency and concurrent validity of the Stress - Arousal Checklist .(SACL), with scores correlating highly with various physiological measures.

Method of Data Collection: The researcher made preliminary visits to each of the cohort classes to seek the permission and consent of students to participate in the study and how each student came to be selected was carefully explained to them. After obtaining the consent, the researcher and students through their class representatives agreed on a definite date and time for the administration of the instrument. Each class representative served as a research assistant during the administration of the psychometric instrument in his or her class.

Throughout the assessment period, rules governing the conduct of human experiments

and the Standards for Educational and Psychological Tests (APA,1966) were strictly adhered to. Also, the guidelines and instructions for the administration of the Stress - Arousal Checklist (SACL) as contained in its manual were religiously followed. Group administration was employed, with each group having a maximum of 31 students. The sitting arrangement was adequate and a relaxed atmosphere was created before the completion of the questionnaire was started. The participants were duly informed of the purpose of the research (though masked) and assured that the instrument was no test hence there was neither right or wrong answers nor time limit. All the respondents completed the questionnaire within 30 to 40 minutes.

Method of Data Analysis: Descriptive statistics (means, standard deviations and percentages) were computed for the variables in the study. The student independent t-test was used to analyze data, in respect of hypothesis one, two and three while hypothesis four was analysed utilizing the one-way analysis of variance (ANOVA). The level of significance for all the hypotheses was set at the 0.05 level.

Hypothesis 1: The first hypothesis states that there would be no significant differences in stress among trainee secretaries due to their pre-training experience.

In testing this hypothesis, responses to the question "Have you worked as a typist before your admission to the Polytechnic" were used to categorize subjects into those with pre-training experience and those without. Their stress scores were then compared utilizing the independent t-test statistic. Results of data analysis are presented in table 2 below.

Table 2: Differences in Stress among Trainee Secretaries due to Pre-Training Experience

Pre-training experience	N	Mean	SD	MD	df	teal	tcrit
With pre-training experience Without pre-training experience	58 42	63.73 68.99	10.14 13.26	5.25	98	2.15*	1.98
*P < 0.05							

From the results presented in table 2 above, it is evident that significant differences in stress exist between trainee secretaries who had relevant pre-training experience and those without the relevant pre-training experience. As the means indicate, trainee secretaries with the relevant pre-training experience recorded lower mean stress score (mean = 63.73; SD = 10.14) than their counterparts without the relevant experience (mean = 68.99; SD = 13.26).

Further analysis using the t-test statistic shows that the obtained t-value of 2.15 is greater than the critical value of 1.98 at the 0.05 probability level, with 98 degrees of freedom. From the above results, the hypothesis that there would be no significant differences in stress between trainee secretaries with pre-training experience and

those without the relevant experience was not empirically supported by data, hence it was rejected. Trainee secretaries without the relevant pre-training experience-seemed to experience higher levels of stress than their counterparts with the relevant experience.

Hypothesis 2

Our second hypothesis states that there would be no significant gender differences in the stress level of trainee secretaries.. To test the hypothesis, the respondents were categorised according to gender and their stress levels compared by the use of the student independent t-test statistic. The alpha level was set at 0.05. Result of data analysis is presented in table 3.

Table 3:Gender Differences in Stress among Trainee Secretaries

Gender	N	Mean	SD	Df	t_{cal}	t_{crit*}
Female	65	72.54	10.67			
Male	35	60.18	15.32	98	4.25*	1.98
Total	100	66.36	11.43			
*P < 0.05						

Table 3 above shows the means, standard deviations and t-test of differences in stress scores between male and female trainee secretaries. As the descriptive data indicate, females generally experienced higher levels of stress (mean = 72.54. SD = 10.67) than their male counterparts (mean = 60.18; SD = 15.32). A t-test comparison of the means shows that the t-value of 4.25 is greater than the t-critical value of 1.98, with 98 degrees of freedom at the 0.05 probability level. This implies that significant differences exist between male and female trainee secretaries in their stress levels.

Based on the above findings, the hypothesis that there would be no significant gender differences in stress among trainee secretaries was therefore rejected. Statistically significant differences in stress exist between male and female trainee secretaries. As an inspection of the means shows, female trainee secretaries seemed to experience more stress than their male counterparts.

Hypothesis 3

Our third assumption was that the level of stress among trainee secretaries would be independent of their marital status. To test this hypothesis, subjects were classified into six types of marital status based on their responses to item four of section A of the research questionnaire. The six types of marital status were single, Single Parent, Married, Separated. Divorce and Widowed.

In analysing the results, the marital status categories of single parent, separated, divorced and widowed were excluded from the analysis owing to insufficient sub-sample size. That is, there were only three subjects in the single parent category, three subjects in the divorced category and two subjects each in the separated and widowed categories. The small number of subjects in each of these categories was therefore

inappropriate for ANOVA statistical analysis. The application of this principle led to the elimination of ten subjects from the analysis. Since only two categories of marital status (single and married) were remaining after eliminating other groups, a t-test statistic was used to analyze the data. The alpha level was set at 0.05. Results are presented in table 4.

Table 4:Differences in Stress between Single and Married Trainee Secretaries

Marital status	N	Mean	SD	Df	MD	teal	ten.
Married	49	68.30	11.82				
Single	41	66.42	11.10	88	188	0.81*	1.0
Total	90	67.36	11.53				
* ns = not significant							

A t-test comparison of differences in stress between single and married trainee secretaries is presented in table 4 above. Results indicate that although married trainee secretaries generally recorded higher stress scores (mean = 68.30; SD = 11.82) than their single counterparts (mean = 66.42; SD = 11.10) the mean difference of 1.88 was very minimal and negligible. Further analysis using the t-test of differences indicates that the calculated t-value of 0.81 is less than the critical t-value of 1.98 at the 0.05 alpha level with 88 degrees of freedom. This implies that there is no statistically significant difference between married and single trainee secretaries in their experience of stress. Based on the above results, the third hypothesis, which states that the level of stress among trainee secretaries would be independent of their marital status, was accepted. Whether or not trainee secretaries were married or single did not influence their experience of stress.

Hypothesis 4

The fourth hypothesis states that -there would be no significant age difference in stress among trainee secretaries. To test this hypothesis, the subjects were classified into three age brackets. The first age group comprised of trainee secretaries 20 years and below. The second age bracket was made up of trainee secretaries between the ages of 21 and 30 years while the third age group consisted of those aged 31 years and above. The stress scores of these three age brackets were then compared by the use of one-way analysis of variance. Results of data analysis are presented in table 5 below.

Table 5: Descriptive Data and One-Way ANOVA of Age Differences in Stress among Trainee Secretaries

AGE GROUP	N	Mean	SD	
Below 20 years	36	64.50	6.26	
21 -30 years	34	63.70	7.39	
3 1 years and over	30	64.10	6.79	
Total	100	66.36	11.43	
Source of Variation	SS	Df	MS	F_{crit}
			F_{cal}	
Between Groups	9.6	2	4.80	5.79
			0.11	
Within Groups	4058.5	97	41.84	
Total	4068.1	99		

ns = not significant

Based on the descriptive data presented in table 5 above, the group means of the three age brackets did not differ significantly from each other and from their grand mean. While those aged 20 years and below had a mean score of 64.5 with a standard deviation of 6.26, those aged between 21-30 years had a mean of 63.7 and a standard deviation of 7.39. The mean stress score of those in the 31 years and over age bracket was 64.1 while the grand mean was 66.36.

Further analysis utilizing one-way ANOVA indicates no significant between group differences. The calculated F-value of 0.11 was less than the critical value of 5.79, with 2/97 degrees of freedom for the numerator/denominator at the 0.05 alpha level.

It was evident from the above results that there is no significant age difference in stress among trainee secretaries. The null hypothesis that there would be no significant age differences in stress among trainee secretaries therefore has empirical support hence it was upheld. The experience of stress among trainee secretaries seems to be independent of their age.

Prevalence of Stress among Trainee Secretaries

The mean of the responses of 100 trainee secretaries to the question “In general, how stressful do you find being a student?” are presented in table 6 for the total sample and for each of the biographical sub-groups. The stress rating is on a four point scale ranging from a minimum of 1 and a maximum of 4.

Table 6:Self-Reported Stress among Trainee Secretaries: Means and Standard Deviations for the Total Sample and for each of the Biographical Sub-Groups

	N	Mean	SD
Total	100	3.20	70
Sex			
Male	35	2.65	1.10
Female	65	3.75	0.51
Experience			
With pre-training experience	58	2.64	1.22
Without pre-training experience	42	3.76	0.20
Marital Status			
Single	41	2.63	1.10
Single parent	03	2.60	1.02
Married	49	3.77	0.10
Separated	02	3.30	0.72
Divorced	03	3.80	0.14
Widowed	02	3.10	0.15
Aged Groups			
Below 20 years	36	3.20	0.14
21-30 years	34	3.40	0.20
30 years and over	30	3.00	-0.26

64% of the trainee secretaries rated being a trainee secretary as either stressful or very stressful while 28% reported that being a trainee secretary was slightly stressful. Only 8% rated training for secretaryship as not at all stressful.

Sources of Stress

The means of the ratings in response to the 20 sources of stress to trainee secretaries are shown in Table 7.

Table 7: Sources of Stress to Trainee Secretaries: Means and Ranking for the Total Sample

Item No	Source of Stress	X	Rank
1	Noisy students in class causing distraction	1.32	18
2	Little knowledge of standards of work required by lecturers	3.11	7
3	Poor school facilities (Books, materials & equipment)	3.20	6
4	Difficulties understanding academic work	2.83	9
5	Lack of concentration outside class when studying	3.02	8
6	Examination syllabuses too demanding in some courses	3.45	1
7	The consequences of engaging in too much social activities to the detriment	0.91	19

	of school work		
8	Lack of sufficient useful career, advice & guidance	1.72	15
9	Difficulty in making own notes from books, journals. and lectures	1.50	16
10	Too much academic assignment to do each day	3.41	2
11	Consequences of letting down parents or guardians	2.00	14
12	Lecturers make too many demands on their students	3.30	4
13	When friends or colleagues get higher marks for written assignments	2.58	10
14	Relevance of course being studied	2.15	13
15	Campus living conditions/overcrowding in hostels	0.84	20
16	Inadequate Facilities for private studies	3.28	5
17	Attitudes and behaviours of some other students	1.35	17
18	Too much work to do	3.36	3
19	No time to relax between lectures	2.42	11
20	Not enough time to prepare for lectures	2.36	12

From table 7 above it is clear that trainee secretaries found examination syllabuses too demanding in some courses as the most stressful source to them (mean = 3.451), followed closely by "too much academic assignment to do each day" with a mean of 3.41. The 3rd , 411" and 5lh most stressful sources were "too much work to do". "Lecturers make too many demands on their students", and "inadequate facilities for private studies with a mean of 3.36, 3.30 and 3.28 respectively.

The least stressful sources were "Campus living conditions/overcrowding in hostels (mean = 0.84), "the consequences of engaging in too much social activities to the detriment of school work" (mean = 0.91) and "noisy students in class causing distraction" (mean = 1.32) which were ranked 20lh, 19lh, and 18lh respectively. Based on the results presented above, the major findings of this study are:

(1) Significant differences in stress exist between trainee secretaries with relevant pre-training experience and those without the relevant pre-training experience. Generally, trainee secretaries without relevant pre-training experience seemed to experience higher levels of stress than their counterparts with the relevant experience.

(2) Significant gender differences in stress exist among trainee secretaries, female trainee secretaries seemed to experience more stress than their male counterparts.

(3) The levels of stress experienced by trainee secretaries seem to be independent of their marital status. Single trainee secretaries did not differ from their married colleagues in their level of stress.

(4) There were no significant age differences in stress among trainee secretaries. The subjects did not differ in their stress levels irrespective of their age differences.

(5) 64% of trainee secretaries rated being a trainee secretary as either stressful or extremely stressful while 28% reported that being a trainee secretary was slightly stressful. However, only 8% rated training for secreatryship as not at' all stressful.

(6) The five major sources of stress to trainee secretaries were "examination syllabuses too demanding in some courses," "too much academic work to do each day", "too much work to do", lecturers make too many demands on their students" and in-adequate facilities for private studies", in that order.

(7) The least sources of stress to trainee secretaries were campus living conditions/ overcrowding in hostels, the consequences of engaging in too much social activity to the detriment of schoolwork and noisy students in class causing distraction.

Discussion

Hypothesis one sought to determine differences in stress among trainee secretaries due to pre-training experience. Results showed that trainee secretaries with the relevant pre-training experience recorded lower stress scores than their counterparts without the relevant pre-training experience. Why trainee secretaries without the relevant pre-training experience are apt to experience more stress than their colleagues with the relevant experience is not difficult to explain. After all, students with the relevant experience are already familiar with the rudiments and basic courses in Secretarial Studies and therefore not likely to experience the initial anxieties, jittery and worries associated with taking shorthand dictation and learning to type. However, definitive conclusions about the relationship of pre-raining experience to stress among trainee secretaries cannot be drawn since this study is exploratory and the researcher is not aware of any previous study that has explored this variable for comparative purposes.

The findings of this study suggest significant gender differences in stress among trainee secretaries. Female trainee secretaries generally experienced higher level of stress than their male colleagues. Secretaryship has hitherto been regarded as an exclusive female career. With respect to the experience of stress and burnout among human service professionals, Maslach and Jackson (1981) had found no significant gender differences. Why female than male trainee secretaries seemed to experience more stress is difficult to explain. However, a possible explanation could be that female trainees experience heavy total workload especially from demands they experience from duties at home, which reflect in their inability to unwind after work. However, the relationship between stress and gender must be interpreted with caution because gender may be confounded with other personal variables.

The third hypothesis sought to establish if the experience of stress among trainee secretaries is independent of their marital status. Results of data analysis did indicate as hypothesized, that there would be no significant difference in stress among trainee secretaries owing to their marital status. Married trainee secretaries did not differ from

their single colleagues in their level of stress. This finding is contrary to the findings of Maslach and Jackson (1981) among human service professionals that there is some relationship between marital status and burnout, with married employed showing lower burnout scores. Like with other demographic variables, the relationship between stress and marital status is highly complex, moderated as it was by other factors.

Our fourth assumption was that there would be no significant age differences in stress among trainee secretaries. Our findings suggest no significant age differences in stress. That is, trainee secretaries did not differ in their stress scores irrespective of their age differences. This finding is inconsistent with expectation. One would have expected the older subjects (31 years and more) to be low on stress as against their younger colleagues, since they (the older subjects) should have garnered enough experiences and developed active problem solving and stress coping strategies.

The findings of this study suggest that about 64% of the subjects regarded training for secretaryship as either stressful or very stressful. Only about 8% indicated that training for secretaryship was not at all stressful. This finding is consistent with the findings of Omoluabi (1985) who found that most Nigerian students find school life very stressful. This should be expected considering the conditions under which students' train in Nigerian tertiary institutions. With respect to the major sources of stress to students, it was found that the most offending factors were examination syllabuses too demanding in some courses, too much academic assignment to do each day, too much work to do, and inadequate facilities for private studies. The least offending of the sources were campus living conditions/overcrowding in hostels and the consequences of engaging in too much social activities to the detriment of school work.

Considering the fact that most studies on campus unrest (Denga, 1986 for example) have implicated overcrowding in hostels and poor campus living conditions as a major cause, it would have been expected that this factor would contribute significantly to the experience of stress among students. That this is not so among trainee secretaries in this study may be explained by the fact that the Polytechnic, Calabar has been non-residential since 1992.

It is evident from the results of this study that the major sources of stress to students centre on examinations, difficult and demanding curricula and lack of facilities for private studies. This is consistent with the findings of Omoluabi (1985) that examinations are the single most stressful and anxiety evoking factor among students. Since learning is the major job of students, one wonders why assessing it should be stressful to students. A possible explanation could be the "uncertainty factor" about examinations and the consequences of failure to students and parents.

Recommendations

Based on the findings of the study, the following recommendations are made:-

(1) To reduce stress in school environments, it is imperative that examinations should be made less stressful to students. Testing Programmes that encourage co-operation and reduce competition among students should be developed and implemented.

(2) It is also imperative that extra-curricular activities be encouraged among students. This should help to ameliorate stress among students. Additionally,

Secretarial Studies should be made more relevant to the learner while devising instructional methods and materials that are learner centered.

(3) The school administration should endeavour to provide more facilities for private study to encourage individual initiative and adequate preparation for examinations. This will help to reduce the anxieties and stresses associated with last minute rush to "cram and pour."

(4) Since trainee secretaries with relevant pre-training experience have been found to experience less stress than their colleagues without the relevant pre-training experiences, an admission policy that gives premium to this variable should be encouraged by the school administration.

(5) Also, since training for secretaryship has been found to be stressful, it is important that stress coping strategies/stress inoculation techniques be made part of the training programme for secretarial administration. Also talk-shops and seminars on stress should be organised on a regular basis for students in the Department of Secretarial Administration

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