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EMOTIONAL STRESS AND PSYCHONEUROTIC SYMPTOM EXPRESSION AMONG UNDERGRADUATE STUDENTS

Amechi NWEZE

Introduction

Emotional problems involving underlying fears, anxieties and tensions associated with difficult academic work have been recognised as sources of the mental health problems among student populations. Often the emotional overlays arising from academic work get translated into physical symptoms and masquerade themselves as physical or organic illness. Western psychiatrists who have come in contact with African students with symptom expressions of emotional stress, found it fitting to label it "brain fag syndrome" (Prince 1960; Harris 1981). Though a questionable diagnostic label to describe the symptom expression arising from emotional stress among students of African origins "the heat in the body", (Mbanefo 1966) "heat on the head" (Ayonrinde 1977), and other forms of somatization of symptoms have been observed among students populations (Ebigbo & Ihezue 1981; Nweze 1984) as well as among non-student samples (Lambo 1963; Anumonye & Adaranijo 1978; Ezeilo 1982, Ebigbo 1984).

In a study of psychiatric morbidity among Ugandan students at Makerere University, German & Arya (1969) noted that 83% of the student population in that year of study consulted the health clinic for various illness complaints. Of this number, 10.8% were referred for psychiatric/psychological help. In a recent outline of the range of emotional problems encountered

by students, Achebe (1982) noted the case of a student at a Nigerian University who made several unsuccessful suicide /p.302/ attempts because of her inability to deal with the academic challenges in her school. Samaan (1971) had earlier studied- the autobiographies of students of an Advanced Teachers' College in Nigeria and observed that fears and concerns about the self and their families were among the sources of stress and anxiety that were carried to school work. Arguing on the rising incidence of emotional problems among Nigerian students, Asuni (1969) assigns the causes to resulting pressure emanating from extreme values placed on education by present day Nigerian youths.

Based on the foregoing, it is evident that the range of emotional problems among Nigerian students stretch from mild disturbed psychological states to severe psychiatric symptoms that often require close clinical attention. The interest of this study was on the role of subjective experiences in enhancing psychological states among students who consulted the University of Jos, Health Services Unit. The questions posed by the study were: (a) to what extent would events in the students' psychosocial (academic) environment relate to the development of emotional stress symptoms (b) to what extent would the students who were specifically referred for psychological help differ from those who were not referred with regard to their subjective experiences of psychological states and somatic symptom expression.

The theoretical position of the study was that the first few months of life in an academic institution would constitute one of the challenges to a student's emotional life. This is because moving into a new environment does not only tax to a persons adjustment process but also exposes the individual to new forms of behaviour. For the old students the experiences of the previous problem situations would likely aggravate current adjustment problems.

Methods

Subjects

The subjects were 30 (25 male and 5 female) students of the University of Jos who were part of the larger group that made consultations to the University's health clinic in the first /p. 303/ semester of 1982-83 academic year. Based on their very frequent visits per week, the attending physicians referred them for psychological help. Their clinical records showed that they had not bad any previous emotional/psychological problems the required psychological help before they gained admission to the University. Their current health services records carried diagnostic entries such as constant headaches; back pains, fatigue, tiredness, poor concentration, loss of interest in studies, sleep disturbance and anxieties. Among this sample two students (male and female) experienced severe emotional breakdown that required their being hospitalized, one of who was unable to complete the school year. These students constituting the "clinical sample" were matched with a control sample who differed only by not having been referred for psychological help. These control subjects however belonged to the group who made consultations to the health clinic but on defined physical illness. Both groups were between 17 and 28 years of age (χ^2 = 22.4; SD - 4.02) for the clinical sample and (χ^2 = 22.36; SD = 3.5) for the control.

Instrument

Information on the students subjective experiences of psychological states (emotional stress) and consequent somatic symptom reactions was obtained using (a) psychosocial stress scale: a modified version of life events questionnaire (Cochrane *&* Robertson 1973) that has been popular in clinical and epidemiological research as well as in cross cultural studies (Cawte, Binachi *&* Kiloh 1968). Item adaptation was guided by clinical experience drawn from the emotional problems earlier ob-

served in students seen at the health clinic (Nweze 1982). The questionnaire also reflects the factor structure of emotional problems as reported by studies based on student populations elsewhere (Moos & Van-Dort 1977, Estes 1973). These problems range from personalized health problems, financial, academic, interpersonal and sex problems. The psychosocial stress questionnaire scored on a 1-5 point scale tapped information on how the various situations in the treatment seeking students' lives caused emotional stress 10 them and as such worked against their academic activities.

/p. 304/ The second instrument "somatization scale" also scored on 1-5 scale is derived from the longer "Cornell Medical Health Index" (Brodman *et al.* 1952). Both the item selection and wording were based on their relevance to the population under study and in relation to their validity in cross-cultural studies (Cawte, Binachi & Kiloh 1968; Ebigbo 1982). The scale sought to determine how the subjective stress experiences induced somatic symptoms in the students. These subjective sensations generally known as "paraesthesia" include beat in the head sensation, crawling movements, bodily pains, watery eyes, constipation, itching and muscle twitches.

Procedure

Following a 15-20 minute clinical interview with the subjects conducted by the author in the university's health services unit and which dealt with information about the students' social, medical and family history, they were administered the two-part questionnaire. The control subjects were invited to the health clinic under the instruction to supply some health information as needed by the health services department. They were subsequently requested to complete the psychosocial stress and somatization scales. All subjects were administered the stress scale first, followed by the somatization scale.

Result

In the analysis, sex was neglected because of the fewness of female subjects in both samples. The analysis looked at the differences between the clinical and control subjects with regard to levels of subjective stress and somatic symptoms and the relationship between subjective stress and somatic symptoms. Thus the means and standard deviations were calculated for stress and somatization scales and t tests computed for the differences between groups (*Table 1*).

The result shows the clinical subjects to differ significantly on health and personal concerns (P = .05), interpersonal problems (P = .05) and on academic problems (P = .05) as stress enhancing stimuli. They did not differ significantly on financial and other items classified as undifferentiated. With /p. 305/

TABLE I
Comparisons between clinical and control subjects on measures of subjective stress

		Clinical N = 30	Control N = 30	t	P
Health and Personal concerns	χ^2	21.8	16.26	2.25	.05
	SD	6.34	5.70		
Interpersonal	χ^2	15.04	10.4		
	SD	4.49	3.47	2.33	.05
Financial	χ^2	14.98	11.08		
	SD	4.79	3.35	1.93	NS
Academic	χ^2	14.08	9.04		
	SD	6.93	4.70	2.07	.05
Undifferentiated or Generalised stress	χ^2	11.32	8.4		
	SD	2.86	3.78	1.6	NS

regard to the extent to which these perceived subjective emotional stress gets somatized into physical symptoms and complaints, the data show the clinical subjects to differ on somatic symptoms complaints but not on perceived emotional ovcrlays (*Table II*).

TABLE II
Comparison between the clinical and control subjects on somatization of symptoms

Variable		Clinical	Control	t	P
Somatic	χ^2	28.84	23.76		
Complaints	SD	2.44	3.83	3.83	.05
Emotional	χ^2	26.00	24.92		
Complaints	SD	3.92	3.09	0.58	NS

Further analysis shows the relationship between subjective stress and somatic symptom complaints to be relatively high for the clinical group (r = + .54, p . = .01) but mild and negative for the control subjects (r = – .33, p . = .10).
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Discussion

The result of this study is significant in some ways. Firstly the data support the link between emotional stress and somatic symptom reactions as a clinical observation among student samples (Ebigbo 1982; Ezeilo 1982; Nweze 1982).

This is revealed by the clinical subjects manifesting greater somatic complaints than the control subjects and which led to their being referred for psychological help in the first instance. The observation is also supported by clinical records of the subjects who made more frequent visits to the health clinic. Further support for greater somatic complaints among the clinical subjects came from interviews conducted with the subjects by the author. During the interview sessions, the clinical subjects complained of severe headaches and pains, stomach upsets, indigestion and Jack of concentration which they held were responsible for their frequent visits to the clinic.

The second important aspect of the present data is related to the non-significant difference observed between the clinical and control subjects on emotional complaints despite significant

differences in somatic complaints. One would explain the finding from the standpoint that students tend to deny presence of psychological problems. Secondly typical of many Nigerians is the reluctance to expose my information that borders on private health information. Rather they would attribute their difficulties and problems to things external. They would resist views suggesting that part of their problems can arise from their inability to make appropriate behavioural shifts capable of remedying their problems. These may partly explain the nature of the findings of this study whereby the emotional stress which induce psychophysiological reactions are simply attributed to harsh academic conditions at school, interpersonal problems and physical health concerns. Working among university undergraduates, Morakinyo (1979) was tempted to explain the low sensitivity of the Cornell Medical Index and the Goldbergs General Hcalth Questionnaire in diseriminating patients from non-patients as due to the negative social attitude towards mental illness among Africans.

The third issue raised by this study concerns the clinical diagnostic label generally referred to as "brain fag" which /p. 307/ some authorities on emotional health on African Students (Prince 1960; Mbanefo 1966; Harris 1981) look at as a unique clinical manifestation among students. Because data from clinical populations other than students (Lambo 1963; Boroffka & Marinho 1963; Anumony & Adarinjo 1978; Ebigbo 1982) found somatic symptom expression of distress to be similar to what Prince had earlier defined as brain fag, one would view somatization of symptoms as a cultural .Phenomenon. This led Ebigbo (1982) to argue that African students are more likely to be diagnosed with the label "brain fag" especially if they experience academic problems.

The overall significance of this study is the importance of psychosocial factors in student mental health services in Nigeria. Nweze (1982) has argued that psychological counselling services should go along with students health clinic organization in Nigeria.

This approach will influence the growth of a relationship be-

tween counsellors and student health staff so that a network of information about students can be exchanged as a means of enabling both of them to decide what services are most needed by students and how best to offer them.

Accordingly Mack's (1979) experience with counselling services at Lagos University seems in support of this approach as this will help reduce the negative attitudes of Nigerian students toward psychological counselling.

Conclusion

Though limited in terms of small sample size and reliance on self-report measure of clinical complaints, this study provides evidence for the need to make provisions in students' health clinics for the management of students emotional problems at school. The study also sheds some light on the issue of somatization of symptoms among Nigerian students. In the author's view when the cultural phenomenon of somatization of symptoms interacts with the negative attitudes about revealing personal mental health information, the issue of somatization of symptoms becomes more masked. This is revealed in the non-significant observation made between the clinical and control subjects on somatic symptoms variables.

/p. 308/ The author would therefore advocate a more extended study covering a longer period with control measures built into the design in an attempt to counter the pitfalls of self-report study approach.

Amechi NWEZE (B.SC., M.A., Clin. Psych.)
Department of Psychology, University of Jos,
P.M.B. 2084, Jos (Nigeria).

REFERENCES

ACHEBE C.E. (1982) "Counselling for examination failure in a Nigerian University." *Personnel and Guidance Journal 60:* 542-544.

ANUMONYE A. & ADARANIJO H. (1978) Chronic non-specific urethristis as

psychophysiological reactions among Nigerian neurotic patients." *Nigerian Medical Journal 8*, 3: 221.

ASUNI T. (1969) "Vagrant psychotics in Abeokuta." *Transcultural psychiatric Research Review*, 15: 168-170. *Journal of the National Medical Association* 1971, *63,* 3.

AYORINDE A. (1977) "Heat in the head: A Somatic: confusion". *African Journal of Psychiatry 1*, 2: 59-63.

BRODMAN K, *et al.* (1959) "The General Medical Index Health Questionnairc IV: The Recognition of Emotional Disturbances in General Hospital." *Journal of Clinical Psychology*, 8: 289.

BOROFFKA A, & MARINHO A. (1963) "Psychoneurotic syndromes in urbanized Nigerians." *Transcultural psychiatric Research Review 15*: 289.

CAWTE J., BIANCHI F.N. & KILOH L.G. (1968) "Personal Discomfort in Australian Aborigines." *Australian and New Zeeland Journal of Psychiatry, 2*: 69-70.

COCHRANE R. & ROBERTSON A. (1973) "Life Events Inventory: A measure or relative severity of psychological stressors." *Journal of Psychosomatic Research 17*: 135-139.

EBIGBO P.O. (1982) "Development of a culture specific (Nigeria). Screening scale for somatic complaints Indicating Psychiatric Disorder." *Culture, Medicine & Psychiatry. 6:* 29-43.

EBIGBO P.O. & IHEZUE U.H. (1981) "Psychosomatic observation as the symptoms of "Heat in the Head". *African Journal of psychiatry*, I/II : 25-30.

ESTES R. (1973) "Determinants of differential stress levels among University students." *American College Health Association, 21* : 470-.476.

EZEILO B.N. (1982) "Somatization of Psychological Distress among Nigerian undergraduate Medical Outpaticnts." *Psychopathologie africaine 18*, 3: 363-372.

GERMAN B.A. & ARYA O.P. (1969) "Psychiatric morbidity amongst a Ugandan student population." *British Journal of Psychiatry 115*, 528: 1323-1329.

HARRIS B. (1981) "Case of Brain Fag in East Africa." *British Journal of Psychiatry 138*: 162-163.

LAMBO A. (1969) "Psychosomatic disorders in West Africa." *WHO Technical Report series*, 275.

LEIGTHON A.H., *et al.* (1963) *Psychiatric Disorders among the Yorubas*. Ithaca, New York, Comell University Press.

MACK D.B. (1979) "Counselling in a Nigerian University." *Personnel and Guidance Journal*, May : 457-461.

MORAKINYO V .O. (1969) "The Sensitivity and Validity of the Cornell Med-

ical Index and The General Health Questionnaire in an African Population." *African Journal of Psychiatry 1*, 2 : 1,!.

MBANEFO S.E. (1966) "Heat in the Body as a Psychiatric Symptom." *Journal of College General Practioner. 11:* 235.

MOOS R.H. *&* VAN-DORT B. (1977) "Physical and Emotional symptoms and campus Health Utilization." *Social Psychiatry 12*: 107-115.

NEKI J. *&* MARINHO. A. (1968) "A Reappraisal of 'Brain Fag' Syndrome" Presented at the 2nd Pan African Psychiatric Conference, Dakar. Scnegal.

NWEZE A. (1982) "Differentiation, Stress and Somatization" *in* M.S. LAOSEBIKAN (Ed.). *The use of Psychology in Modern Nigeria.* Vol. II. Ibadan University.

(1984) "Psychosocial Stress and the mental Health status of University students." Nigerian Journal of Psychological Research (ln Press).

PRINCE R.H. (1960) "The 'Brain Fag" syndrome in Nigerian students." *Journal of Mental Science 106* : 559-510.

SAMAAN A. (1971) *An Autobiographical Profile analysis of Ibo Nigerian College students and their Health stress.* Doctorat Dissertation: Ohio Univenity.

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SUMMARY:

This study assessed the role of perceived psychosocial stress in promoting mental health problems among students. The setting was the University of Jos health services Unit: an outpatient clinic serving the entire university of Jos community. The subjects were undergraduate students in the first six months of their freshman year and who consulted the health clinic more frequently than others and as such their health complaints were seen as emotionally induced symptoms. These subjects constituting the clinical sample were matched and compared with a control group on perceived psychological state and symptom expression. Psychosocial stress and its symptom expression were measured through subjective stress report and somatic symptom expression questionnaire. The result showed the clinical subjects to differ significantly from the control on measures of subjective stress. They did not differ significantly on somatic symptom reaction to stress. Further analysis showed the relationship between stress and somatic symptom to be higher for the clinical group (r = + .54) than for then control group (r = + .33).

Key words : • Psychosocial Stress • Somatic Symptoms • University of Jos Health Services Unit • Nigeria

RÉSUMÉ :

LA TENSION ÉMOTIONNELLE ET L'EXPRESSION DE SYMPTÔMES PSYCHONÉVROTIQUES CHEZ LES ÉTUDIANTS NIGERIANS

Cette étude évalue le rôle intensificateur joué pur la tension psychosociale dans les cas de troubles mentaux observés chez les étudiants. Le champ d'observation était la consultation externe de ln polyclinique de l'Université de Jos qui dessert la communauté universitaire toute entière. Les sujets éraient des étudiants dont la fréquentation de la clinique pendant les six premiers mois de leur première année d'études était perçue comme étant bien au-dessus de la moyenne ct comme telles les plaintes qu'ils présentaient en relation avec leur santé étalent considérés comme émotionnellement induites. Ces sujets qui constituent un échantillon clinique, ont été comparés à un groupe contrôle pour ce qui concerne leur état psychologique et les symptômes manifestés.

La tension psychologique et les symptômes qu'elle entraîne ont été évalués par les réponses à une échelle de tension psychologique ainsi qu'à une échelle de somatisation. Les résultats montrent qu'il existe un écart important entre l'échantillon clinique et le groupe contrôle en ce qui concerne les mesures obtenues par auto-examen des indices de tension. Cependant on n'as pas remarqué une différence significative en cc qui concerne les cas signalés de réaction somatiques à la tension ; des analyses ultérieures ont montré que les correspondances entre la tension et les symptômes somatiques sont plus élevés pour le groupe clinique (r = + .54) Que dans le cas du groupe contrôle (r = + .33).

Mots clés : • Tension psycho-sociale • Symptômes somatiques • Service de Santé de l'Université de Jos • Nigéria.