J. Soc. Sci., 5(1&2): 101-107 (2001)
PRINT: ISSN 0971-8923 ONLINE: 2456-6756
DOI: 10.31901/24566756.2001/05.1,2.11

Somatisation Symptoms in a Sample of Nigerian Prisoners

Sunday Erhabor Idemudia[1], Ntomchukwu Sylvester Madu[2], Jegede, Ayodele Samuel[1] and Ibe Blessing[1]

1. Department of Psychology, Faculty of the Social Sciences University of Ibadan, Ibadan, Nigeria
2. Department of Psychology, Faculty of Arts, University of the North, Sovenga, 0727, South Africa

KEY WORDS Somatisation; prisoners; inmates; Nigeria.

ABSTRACT This study examined the prevalent rate of somatisation and influence of time spent in prison, prisoners' status and type of crime committed on somatic symptom report in a sample of inmates in Nigerian medium prisons. Data was collected from a sample of 300 prison inmates, randomly drawn from three medium prisons-Agodi prison, Ibadan; Ijebu-Ode prison and Abeokuta prisons in Ogun State. All three prisons are located in Southwestern Nigeria. Somatisation was measured with the Enugu Somatisation Scale (ESS) developed by Ebigbo (1982).

Generally, results indicate a high prevalence of somatisation (77.3% of the total) among prison inmates. Results also revealed a higher prevalence of STs in males than females. Two hundred (200) male inmates (86.2% of the cases or 66.7% of the total) were classified as STs and only 32 (13.8% of the cases or 10.7% of the total) were classified as STs. Therefore the ratio of males: females is 8:1. Somatisation was more prevalent among Awaiting Trial Persons (ATPs) than the convicts: prevalent rate for the ATPs was 83.7% of the cases and 16.2% of the total for the convicts. Results also showed that, somatisation was higher in inmates with longer prison sentences, i.e those who have spent over two years in prisons. There was no significant difference in somatisation and type of crime. The predominant symptoms were dizziness (61%), compulsive head shaving (59.3%), headache (52.7%), unbelievable physical symptoms (55%), and pains in the limbs (53.7%) and excessive sweating (52.0%).

It is suggested that the legal framework on which the Nigerian penal system is anchored be generally modified and overhauled as the system is working against its' objective of rehabilitation and reformation. The prison system should also be more realistic and be sensitized to the present realities of penology if the relevance of prisons to national development is to be realized.

INTRODUCTION

Basky, and Klerman, (1983) defined somatisation as the expression of emotional discomfort and psychosocial distress in the physical language of bodily symptoms rather than a verbal one. According to Goodman, (1995), people experience unwelcome physical sensations, symptoms, and preoccupation with medical illness without evidence of physical disease. The term "somatisation" has been applied to patients with hypochondriac worries who amplify or exaggerate their somatic distress, and to patients with functional or medically unexplained symptoms. It represents the most persistent, disabling and costly form of somatoform disorders and according to Lipowski, (1988), somatisation disorder is considered to be the most valid and reliable somatoform disorders. It presents as multiple bodily symptoms without evidence of physical disease.

Olatawura, (1973), Ebigbo and Oli, (1985), has described these symptoms as they typically manifest in the African, for example: heat sensation from inside the head or body, peppery and crawling sensations in various parts of the body, baffling muscular fasciculations, feelings of heaviness, soreness, numbness, poorly localized aches and pains etc. Somatisation in Africans have variously been described as paraesthesias, (Ayorinde, 1977), masked depression (Jegede, 1979) "brain fag syndrome" (Ebigbo, 1982) and largely a phenomenon of psychoneurosis (Ohaeri and Adeyemi, 1990). That is the reason why Lipowski (1988), described somatisation as the process of ignoring or denying psychological symptoms such as anxiety and depression, while emphasising the somatic concomitants of psychiatric disorders.

Somatisation, among other somatoform disorders, represents a spectrum of adaptation to trauma and stress. The American Psychiatric Association's taxonomies, influenced by Guze's (1975) approach have proposed varying numbers and groupings of symptom counts in defining somatisation disorder. These classifications have changed over time and have acquired distinctions from related disorders such as "body dysmorphic disorder", "somatoform pain disorder", and "hypochondriasis" (Smith, 1990;

Kirmayer & Robins, 1991; American psychiatric Association, 1987, 1994). However, Waitzkin and Magana, (1997) have also claimed that the number, types, and/or severity of trauma may be uniquely associated with somatisation. Trauma and stress are therefore conceptualised as antecedent conditions of which certain characteristics may be related to the presentation of somatic symptoms. Also, somatisation may occur as comorbid condition along with such psychological symptoms as anxiety or depression. Idemudia (1995, 1997, 1998) have documented the prevalence of psychopathology among prison inmates.

According to Civil Liberties Organization (CLO) (1991) virtually every prison in Nigeria is a slum. The housing conditions consistently reveal themselves to be wretched, deplorable, over crowded and almost totally devoid of sleeping and sanitary facilities. According to Idemudia (1995), prison congestion has consequences for the health, particularly mental health of prisoners. Congestion in Nigerian prisons contributes to the dissipation of mental, psychological and physical tension, which can adversely affect the mental health of the inmate, which sometimes lead to serious mental health problems and even death. The major causes of death according to CLO (1991) are prison congestion, malnutrition, and other diseases arising from poor feeding, poor sanitation and the near total absence of medical and psychological care. Common diseases found in Nigerian prisons are Kwashiorkor, tuberculosis, rheumatism, high fever, (body) pain, skin rashes, (ring worm, "kraw kraw"), ulcers and even leprosy. Unfortunately, studies on somatisation disorder across cultures, have been in the settings of psychiatric and neurotic clinics (Barsky and Klerman, 1983), and primary care patient populations, as well as in the general population, (Bridges, Goldberg and Evans, 1991; Ohaeri, and Odejide, 1994) and as a result there are several gaps in our understanding of the problem. To our knowledge, there is no Nigerian study that has specifically investigated somatisation as reported in prisons.

Also, the commonness of somatisation symptoms necessitate that more studies be done to study the phenomena and to include some neglected groups like prison inmates. Seeing that the prisons play such important roles of reformation and rehabilitation as well as custody of inmates, both suspects and convicts, in the criminal justice system of any society, it becomes equally important that the psychological wellbeing of the inmates be ensured while in custody. As such, understanding the somatisation symptoms of prison inmates will have implication for management and treatment.

Steiner, Garcia and Matthews, (1997), in their study claimed somatisation to be one of the immature defences demonstrated by incarcerated juvenile delinquents suffering from post-traumatic stress disorder. Research findings also have revealed that post-traumatic stress disorder, dissociation, somatisation and affect dysregulation were highly interrelated and represent a spectrum of adaptation to trauma, (Pelcoritz and Roth, 1996).

Regarding trauma more specifically, recent work, (Young, 1995) concerning the history and ethnography of post-traumatic stress disorder, has reviewed critically the notion of traumatic memory and the impact of culture as they relate not only to post traumatic stress disorder but also to such psychiatric syndromes as hysteria and somatisation. These efforts in cultural psychiatry have focused especially on the cultural context of psychiatric disorders and the differential patterning of somatic symptoms based on cultural variations.

From the literature reviewed above, there are strong indications that somatisation is a serious psychological problem and has not been investigated in prisons. This study therefore, attempts to investigate somatisation as associated with the extreme stress induced by the trauma of incarceration among prison inmates in Nigeria. Consequently, the study was premised on four hypotheses viz: that there will be a high prevalence of somatic symptoms among prisoners; that prisoners who have stayed longer in prison would report more of somatic symptoms than those with shorter periods of time. Length of time was defined in terms of short duration = >11 months; medium duration = 12-24 months; long duration = 25 months and above. In addition, because of the peculiarity of the Awaiting Trial Persons (ATPs), hypotheses three predicted a significant difference in somatisation between

convicted prisoners and ATPs, and finally, hypothesis four envisaged a relationship between types of crime committed and somatisation

METHOD

Participants

The three hundred (300) prison inmates used for this study were randomly selected from three medium prisons in South-western Nigeria, namely: Agodi prisons, Ibadan, Oyo State; Abeokuta Prisons, Abeokuta; and Ijebu-Ode prisons, Ijebu-Ode, both in Ogun State. Of the total sample of 300 prison inmates, 204 were ATPs, (91.2% males and 8.8% females), 97 convicted inmates (92.0% males and 8.0% females). A break down of prison samples showed that 129 inmates were sampled from Agodi prisons, (111 male and 28 females). Eighty-nine (89) inmates were sampled from the Abeokuta prisons 82 males and 22 female inmates while 107 all-male inmates were sampled from Ijebu-Ode prisons. Educational attainment of inmates ranged from no formal education, to University education. The majority, 154 (51.3%) had attempted secondary school and dropped out, 20 (6.72%) had no formal education, 67 (22.3%) attempted or finished primary school, and about 59(19.6) had post secondary education. Age of inmates ranged from 15 to 65 years. The majority of the inmates 131 (43.7%) were age between 25-34 years, while 70 (23.3%) and 99(33.0%) were below 24 years and above 35 years respectively. Altogether, 250 male prisoners (83.3%) and 50 (16.4) female prisoners were assessed and interviewed for this study. Data was collected between January and June 2000.

Screening Instrument

One major instrument was used for this study-the Enugu somatisation scale (ESS) developed by Ebigbo (1982). It is an instrument developed to measure somatisation. The instrument is a screening scale of culture bound somatic complaints developed out of the psychosomatic complaints exactly as reported by the mentally ill in Nigeria, (Ebigbo and Ihueze, 1981; Ebigbo, 1982). The instrument is a 65-item scale made up of two factors, head and body. The first factor "head" contains the first 23 items, while the second factor "body" contains items 24-65. The Enugu somatisation scale has been used to examine various groups of mentally and physically ill patients (Ebigbo, 1986; Ebigbo and Ihueze, 1981; Ebigbo and Obiako, in press).

A pre-test of the instrument for this study, among 30 inmates of Agodi prison showed inter-item correlation range of .17 minimum and .61 maximum. Thus, the Cronbach coefficient alpha was .94, while the split half alpha was .91 for "head" and .90 for "body". The Spearman-Brown reliability coefficient was .89 (equal and unequal length). A half standard deviation cut off above the mean score was found to be sensitive to determine somatisers from non-somatisers. The scale also had specificity of 80.4%. The DSM–III (R) criteria of 13 or more symptoms were used to diagnose somatisation disorder.

Statistical Procedure

The data have been analysed with the SPSS statistical package. The procedure used was mainly descriptive. The demographic characteristics and distribution of cases for somatisation (STs) were compared with those of the non-cases using c2 and a 3-way ANOVAR at five percent level of statistical significance to explain, duration in prison, prisoner status and type of crime committed and prevalence of somatisation report among prison inmates. Type of crime was classified in to three, viz: simple offences, misdemeanor, and felony. Length of time was defined in terms of short duration = >11 months; medium duration=12-24 months; long duration = <25 months.

RESULTS

Results revealed that about 232 inmates (77.3%) of the total fulfilled criteria for somatisation (ST). The STs admitted experiencing at least one group of somatic symptom or the other for a period of one month upward thereby fulfilling the criteria for somatisation. The DSM –III (R) criteria of 13 or more symptoms were used to diagnose somatisation disorder. The predominant symptoms were dizziness (61%), compulsive head shaving (59.3%), headache (52.7%), unbelievable physical symptoms (55%), and pains in the limbs (53.7%) and excessive sweating (52.0%).

Among the STs, 88 (23.3%) between the ages

Table 1: Comparison by Sex of inmates and age differences, with somatisation symptom reported and those without somatisation symptoms N=300

Variables	*Without somatisation symptoms*			*With somatisation symptoms*		
Age (in years)	*Male (%)*	*Female (%)*	*Total (%)*	*Male (%)*	*Female (%)*	*Total (%)*
<24	16 (5.3%)	5 (1.6%)	21 (7%)	41 (13.7%)	7 (2.3%)	48 (16%)
25-34	21 (7%)	7 (2.3%)	28 (9.3%)	88 (29.3%)	16 (5.3%)	104 (34.7%)
>35	13 (4.3%)	6 (2%)	19 (6.3%)	71 (23.7%)	9 (3%)	80 (26.7%)
Total	50 (16.7%)	18 (6%)	68 (22.7%)	200 (66.7%)	32 (10.7%)	232 (77.3%)

Prevalence of males =86.3%
Prevalence of females = 13.7%

Table 2: Comparison by Sex of inmates, and prison status with somatisation symptom reported and those without somatisation symptoms N=300

Variables	*Without somatisation symptoms*			*With somatisation symptoms*		
Prisoner Status	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*
Convicts	60 (20%)	7 (2.3%)	67 (22.3%)	21 (7%)	8 (2.7%)	29 (9.7%)
ATPS	45 (15%)	9 (3%)	54 (18%)	131 (43.7%)	19 (6.3%)	150 (50%)
Total	105 (35%)	16 (5.3%)	121 (40.3%)	152 (50.7%)	27 (9%)	179 (59.7%)

Prevalence of convicts=16.2%
Prevalence of ATPs= 83.7%

of 25-34 years were mostly affected in the cohort followed by those above 35 years being 23.7% of the cases. In addition, males in that same category 25-34 years were most affected. Compared to females of this cohort, there were significantly more males than females, males = 200, females 32, $\chi^2 = 20.28$, P<.001).

Also, somatisation symptom report was classified among convicts and ATPs, (Tables 2 and 5). Surprisingly, 150(50% of the total or a prevalent rate of 83.7% of the cases (males and females) ATPs reported more symptoms than the convicts (29 = 9.7%) for the total cohort or 16.2% of the cases. A significant main effect was sustained for this variable, F, (1,271)=33.424, P>.001.

Again duration in prison (Tables 3 and 5) was calculated in months and these were classified into three for both ATPs and convicts viz: < 11 months, i.e. below 1 year; 12-24 months (1-2 years) and > 25 months (>2 years). Seventy-five (25%) of the inmates for this cohort were in the majority for the somatized group for both males and females and followed by those who have stayed beyond 2 years of imprisonment 66 (22%). Only 47 (15.7%) staying for less than a year reported symptoms of somatisation. There was a significant difference for prison inmates staying beyond 2 years and somatic symptoms report, F, (1,271)=7.120, P>.001.

There was no significant difference in type of crime committed and somatisation as the majority of non somatizers (159 = 53%) and the somatized 141 (49%) were almost evenly distributed among types of crime committed and surprisingly also, for both males and females (Tables 4 and 5).

Table 3: Comparison by sex of inmates and duration in prisons, with somatisation symptom reported and those without somatisation symptoms N=300

Variables	*Without somatisation symptoms*			*With somatisation symptoms*		
Duration in persons (in months)	*Male (%)*	*Female (%)*	*Total (%)*	*Male (%)*	*Female (%)*	*Total (%)*
<11	22 (7.3%)	4 (1.3%)	26 (8.7%)	36 (12%)	11 (3.7%)	47 (15.7%)
12-24	33 (11%)	9 (3%)	42 (14%)	59 (19.7%)	16 (5.3%)	75 (25%)
>25	17 (5.7%)	7 (2.3%)	44 (14.7%)	54 (18%)	12 (4%)	66 (22%)
Total	72 (24%)	20 (6.8%)	112 (37.3%)	149 (49.7%)	39 (13%)	188 (62.7%)

Table 4: Comparison by Sex of inmates and Type of crime committed with somatisation symptom reported and those without somatisation symptoms N=300

Variables	*Without somatisation symptoms*			*With somatisation symptoms*		
Type of crime	*Male (%)*	*Female (%)*	*Total (%)*	*Male (%)*	*Female (%)*	*Total (%)*
Simple offences	48 (16%)	6 (2%)	54 (18%)	41 (13.7%)	4 (1.3%)	45 (18%)
Misdemeanour	47 (15.7%)	5 (1.7%)	52 (17.3%)	46 (13.3%)	4 (1.3%)	50 (16.7%)
Felony	46 (15.3%)	7 (2.3%)	53 (17.7%)	38 (12.7%)	8 (2.7%)	46 (15.3%)
Total	141 (47%)	18 (6%)	159 (53%)	125 (41.7%)	16 (5.3%)	141 (49%)

Table 5: A 3-way ANOVAR table showing the effect(s) of duration in prison, prison status and type of crime on somatisation

Source	*SS*	*DF*	*M S*	*F*	*P*
Duration (A)	1875.614	2	937.807	7.120	.001
Pri. Status (B)	4402.756	1	4402.756	33.424	.001
Type crime(C)	559.230	2	279.615	2.123	Ns
A & B	126.567	2	63.284	.480	Ns
A & C	85.717	4	21.429	.163	Ns
B & C	66.746	2	33.73	.253	Ns
A, B & C	273.344	4	68.336	.519	ns
Residual	33457.615	254	131.723		
Total	39641.985	271	146.280		

DISCUSSION

As earlier stated, this study is one first attempt at studying somatisation symptoms among a population of prison inmates in the Nigeria context. As a result there is paucity of information on prevalence rates from similar studies with which this study can be compared. However, findings from past studies on somatisation among primary care patients' populations show prevalence rates of 9.4% (Lobo et al, 1996) and 8.0 % (Kirmayer and Robins, 1991). The high prevalence of somatisation in prisons compared to the general population is worrisome.

On the length of time a person spends in prisons, it was also found that the longer an inmate spends in prison, the more he/she would report somatic symptoms or the greater his/her susceptibility to somatic symptoms. This finding amplifies an earlier study by Idemudia, (1998) where he found a significant relationship between length of time spent in prison and psychological dysfunction. The finding also supports Golding, Smith and Kashner (1991) study that somatisation can be present with anxiety disorders, mood disorders and substance abuse. Also, Waitzkin and Magana, (1997) have also claimed that the number, types or severity of trauma can be uniquely associated with somatisation. Thus, somatisation occurred as a comorbid condition along with psychological symptoms of anxiety and depression. This is in agreement with the findings of several past studies, for example, Gureje, Simon, Ustun and Goldberg (1997) found that somatising patients were at elevated risk for comorbid depression and generalised anxiety disorder. Also, Ohaeri and Adeyemi (1990) found that anxiety and depressive neurosis patients were predominantly presented with somatisation symptoms.

Results also indicate that ATPs were more somatised than the convicts. Why would this be so? The explanation here is that in Nigerian prisons, ATPs and convicts are treated differently probably due to the penal policies. The convicted prisoner is regarded as a "government property" and as such is provided with a uniform and the prisoner is entitled to three meals a day. Thus, as such the prisoner feels at "home". On the other hand, the ATP is neither provided with any uniform nor even with food. It is expected that relatives will bring food to the ATP while in detention in the prison. Furthermore, the convicts have a definite stay in the prison as they are aware of the period of sentence whereas, the ATPs have no idea when their cases will appear in courts and their matter decided. In all matter of prison

administration including privileges, the convicts are considered first before the ATPs. Thus, a situation of continuous frustrations is created among the ATPs and the consequence is the high somatic report among the ATPs.

CONCLUSION

Of the four hypotheses tested in this study, three were significant. The findings of this study shed more light on the Nigerian prison system and add to knowledge about the prevalence of somatisation symptoms among prison inmates. This knowledge serves to indicate the importance and relevance of psychological services in prisons, as this is relevant to prison management. The summary of the main findings of this study reads thus:

There is high prevalence of somatisation symptoms among inmates.

Somatisation report is higher in males than females.

That inmates who serve long prison terms reported more somatic symptoms than those serving shorter prison terms.

That convicted inmates reported less somatic symptoms than Awaiting Trial Persons (ATPs).

The conceptual framework of this study recognises the psychological and prisoners conditions as they relate to somatic complaints among prisoners. The results of this study re-emphasises the importance of this concept to the management of the Nigerian Prisons Service and legal framework which hitherto had not been paid adequate attention, much like other important health issues. Provision should be made for adequate healthcare facilities and other rehabilitative programme as well professional psychotherapeutic services so as to ensure adequate physical and mental wellbeing of prison inmates during and after incarceration.

Thus, the findings have implications both at the micro and macro levels. At the micro level, prison inmates should be taught adequate coping strategies for adjusting better to the trauma and stress brought about by the changes in life due to incarceration. At the macro level, clinical, and forensic psychologists, social workers, and other health care providers, the management and staff of the Nigerian Prisons service and the society at large should play vital roles in combating the problem.

On the length of sentencing, judges, magistrates and those in charge of sentencing should endeavour to lighten prison sentences, and adopt a more humane and better methods of dealing with prisoners. An in-depth study should be done to identify the factors facilitating and maintaining this relationship, such that appropriate therapeutic measures can be instituted, with special attention paid to inmates who have spent longer periods of time in prison.

On prisoners' status, there is need for a general overhaul of the legal framework guiding the penal system, which at the moment is archaic, obsolete and irrelevant to the present day realities. Clinical intervention for all prisoners is very important because if the main objective of imprisonment being reformative and rehabilitation can be achieved, this would be a major step towards reducing the cases of recidivism to the barest minimum if not totally eliminated, and towards helping the nation to become a crime free society. Considering that the age range of 14 – 59 represents a very large percentage of the labour force of any nation, it becomes more so important that crime rate and recidivism be reduced if the nation is to advance in development of any kind.

RECOMMENDATIONS

Judges in Nigerian courts should learn to employ non-custodial sentences and to be more precise and efficient in their trial procedure in order to reduce the number of prison inmates that are awaiting trial and to reduce the alarming length of time some of them spend in prison.

Prison reformation programmes, which lay emphasis on psycho-educational and skill-based training, should be developed for prisoners. This has been found to be very effective, (Idemudia, 1996).

A positive orientation of the prison officials and the society at large toward prisoners is necessary for the promotion of good relationship, rehabilitation and reintegration of prisoners in the society.

Also, families and friends of prisoners should be encouraged to visit them as this will reduce to some degree the feelings of depression and

anxiety and provide them with a sense of belonging.

Findings of this study should be used as baseline data for developing intervention programmes for this area of problem. Intervention here should be aimed at prevention and treatment of somatic symptoms in inmates, and provision of mental health services.

In conclusion, research in this direction should be encouraged and should investigate the issues in details with emphasis on causality and treatment.

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