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Pattern of psychiatric morbidity and somatic symptoms in a family medicine clinic of a University Teaching Hospital in Enugu, Southeast Nigeria

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Abstract

Introduction: Unexplained distressing bodily complaints like localised heaviness in the body, tingling, heat, pain and crawling sensations, unattributable to physical pathology and psychiatric morbidity, are common among patients that attend Family Medicine Clinic.

Objectives: The study assessed patterns of psychiatric morbidity and somatisation symptoms Family Medicine Clinic of a University Teaching Hospital in Enugu, Southeast Nigeria.

Methods: A cross-sectional survey of 81 somatising patients were part of a case-control study, selected by a consecutive sampling of 89 patients at the Family Medicine Clinic of the University of Nigeria Teaching Hospital, Enugu. Data was collected using the PHQ-15 and MINI plus English Version 6.0 and analysed with SPSS 21.

Results: Seventy-six (93.3%) of the participants had psychiatric diagnoses. The most prevalent symptoms were heat sensations (75.3%), pain sensations (61.7%), crawling sensations (51.9%), heaviness (46.9%) and tingling/paresthesia (29.6%). The mean age at onset was 32.99 years. The mean duration was 6.07 years (±7.58). The study revealed that 76 (93.3%) participants had psychiatric diagnoses, and somatisation disorder was the most prevalent psychiatric disorder 71(87.7%).

Conclusion: Knowledge of the patterns of somatisation symptoms and comorbid psychiatric conditions is vital for the effective management of these patients.

Keywords: Psychiatric Morbidity; Somatic Symptoms; Family Medicine Clinic; University Teaching Hospital; Enugu; Southeast Nigeria

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1. Introduction

Somatisation describes the clinical conditions in which there is the tendency to experience psychological distress in the form of physical or somatic symptoms with uncertain medical explanations. Although some patients with medically unexplained physical symptoms experience mild or transient discomfort, others experience substantial discomfort, distress, and impairment in functioning [1,2]. Bodily symptoms unattributable to a well-defined biological origin are common in the general outpatient clinic and contribute to more than a quarter of their patients. [3, 4]. While no clear consensus has been reached on the definition of somatisation, the DSM V and ICD-11 have made attempts in the classification of 'somatic symptom disorder' and 'bodily distress disorder', respectively, to harmonise the imprecise boundaries between different categories seen in their previous editions and to de-emphasis the negative criterion specification needed to make a diagnosis [5, 6]. The emphasis now is on the intense discomfort or the abnormal psychological response to the presence of one or more of these somatic symptoms rather than the number or the adverse pathological finding(s).

These symptoms are usually distressing, resistant to treatment and contribute significantly to the individual suffering and deterioration in personal, occupational, and broader social functioning [7]. Most often, these symptoms resolve spontaneously. However, in 10-16% of primary care patients, the symptoms persist for more than six months [3,8], and in approximately 2.5%, these somatic symptoms remain chronic. These patients, whose symptoms remain persistent, suffer from severe and disabling symptoms that are often refractory to standard medical treatment and overuse of medical services [9,10]. And these cause considerable frustration to both patients and doctors. Their health care needs lead to significant costs [4,11] due to the high frequency of primary and secondary care use [12]. Together with productivity losses, these costs result in substantial societal costs [13].

Unexplained bodily symptoms are a wide scoped clinical phenomenon, usually defined with mental processes rather than structural or physical disorders, expressed as temporary complaints in some individuals, idioms of distress or an expression of 'stress' influenced by cultural and social life. And for others, a primary symptom of many psychological diseases [7,14]. One of the oldest explanations for unexplained somatic symptoms advances the theory of the body's attempt to cope with emotional and psychological stress [15,16]. In patients with somatic symptoms, predictors of mental disorders include a more significant number of somatic symptoms, higher symptom severity, failure to respond to medication trials, and pain in more than two sites [17,18].

Considerable evidence suggests that psychiatric morbidity, predominantly depressive and anxiety disorders are strongly related to somatic symptoms [19,20]. These disorders typically last for years, are present before adulthood, and significantly impact functioning [21]. Overlap in these psychiatric diagnostic groups is evident in their shared diagnostic criteria such as sleep disturbance and impaired concentration [3], highly inter-correlated psychometric scales [22] and similar treatment methods [22], other psychiatric conditions like substance-related disorders, psychotic illnesses, and axis II disorders like personality disorders and mental retardation [23].

Some studies in Nigeria have demonstrated high rates of psychiatric morbidities among patients with somatic complaints [24,25,26]. Depression and Anxiety disorders rank highest in order of frequency of occurrence [24,25]. In particular, Okafor et al. [24] found that more than two-thirds of their participants (patients with somatic symptom complaints attending primary care clinic) had psychiatric disorders, with the depressive disorder as the commonest psychiatric diagnosis. However, Okulate et al. [27] observed that somatic complaints have little weight in diagnosing depression but opined that they might have more weight in diagnosing anxiety disorders. Multiple factors within one's cultural context may affect how individuals identify and classify bodily symptoms. The majority of these data are from Western Nigeria; the implication of this needs to be further explored in Eastern Nigeria.

The co-occurrence of psychiatric disorders with somatic symptoms is associated with increased somatic severity, more functional disability, higher medical care utilisation, and higher costs than the pathologies apart [3,28]. Each of these disorders is associated with enormous functional impairment, increased disability days and high disease burden [28,29], but the contribution of these disorders when comorbid exceeds that of its separate parts on functional impairment [22].

There is difficulty diagnosing and treating unexplained somatic symptoms in the general outpatient clinic [30,31]. The difficulties encountered in treating somatising patients might stem from our limited understanding of the condition. More literature is required to understand this medical phenomenon better for an effective treatment, hence the present study. The controversy over these symptoms in the international and local literature on how best to describe and classify these patients is ongoing as it remains unclear [32].

The study aimed to assess somatic symptoms and patterns of psychiatric morbidity among patients with distressing bodily complaints unattributable to physical pathology in the general outpatient clinic of the University of Nigeria Teaching Hospital, Enugu. The unexplained somatic symptoms constitute an enormous burden to patients, care providers, the health care system and society; hence its study is crucial. The findings of this study will add to the existing body of knowledge that could assist in a better understanding of the somatisation disorder leading to better management of patients with the condition.

2. Material and methods

2.1. Study setting and population

The cross-sectional study was conducted at the Family Medicine Clinic of the University of Nigeria Teaching Hospital (UNTH) Ituku-Ozalla, South-East Nigeria. The hospital has a full complement of clinical medicine departments and receives referrals from all the five states of Southeastern Nigeria and beyond. Patients access the primary care services in UNTH at the Family Medicine Department through the clinics that run daily on weekdays. The patient turn-out to the Family Medicine Clinic is high, and those that presented were usually evaluated (Clerked, examined and assessed). Many patients are treated and allowed home from the Family Medicine Clinic. At the same time, many complicated cases are referred to see a specialist for a specific medical service in the Consultant Out-Patient Clinics of UNTH for further evaluation and possible as an outpatient treatment or admission. The Department of Psychological Medicine also receives referrals from Family Medicine Clinic for psychiatric evaluation. The Family Medicine Department of UNTH is to provide high-quality general outpatient health care services, for both the walk-in and referred patients, to the satisfaction of the health care needs of the patients, regardless of their age, gender, or type of disease or illness.

2.2. Participants

The study participants were selected from consecutive general outpatient's clinic attendees presenting with somatic symptoms in a follow-up. Thorough physical examination and diagnostic tests, usually determined by the symptoms present, were performed to rule out the family physicians' physical causes or any identifiable causes. Participants from this group above who were non-psychotic (using Psychosis Screen from M.I.N.I-Plus) and scored 5 and above in PHQ-15 (cut-off serving as predominantly somatic) were recruited until the targeted population size was met. Altogether, 91 patients with predominantly somatic symptoms were approached in the General Outpatient Clinic; five declined consent due to increased hours spent with the family physicians, while five questionnaires were poorly completed. Data for 81 (89%) out of the 91 persons who consented to participate in the study were analyzed.

The age range for all the participants was 18-65years, with a mean age of 38.9 years (±12.5). They were subdivided into early adulthood, middle age group and older Age-group using the following age ranges;18-45years, 46-59 years and 60years and above, respectively. The majority of the participants fell within 18-45 years and accounted for 67.9% of the participants. At the onset of somatic symptoms, the earliest age was 15 years, and the mean duration of illness was 6.07 years (±7.58). The females, 46(56.8%), were more than the males, 35(43.2%), at a ratio of 1.3:1. The mean age of female participants (40.98 years ±13.46) was higher than that of male patients (36.20 ±12.49). There was no significant difference in gender distribution; χ 2=0.000; df=1; p=1.000. All the participants could read and write in the English Language. The majority of the study participants, 98(60.5%), had attained the tertiary level of education. See Table 1 for the socio-demographic profile of participants.

2.3. Inclusion/Exclusion Criteria

Non-psychotic patients aged18 years and above attending the GOPD, whom Family physicians have ruled out organic pathology, were included in the research. Patients diagnosed with Functional syndromes like fibromyalgia, irritable bowel syndrome, etc., were excluded because they are already recognised as medical syndromes. Also, patients on medications known to cause psychiatric symptoms (alpha-methyl dopa and corticosteroids) were excluded.

2.4. Measures

2.4.1. Socio-Demographic Questionnaire

A semi-structured questionnaire elicited socio-demographic information from each consenting patient, including age, sex, marital status, religious affiliation, ethnicity, occupational status, and highest educational level. Clinical variables included in the questionnaire for the somatic participants include the duration of illness, age at onset of illness, symptomatology and pattern of distribution of symptoms. An Adapted life event Questionnaire was also attached.

2.4.2. Patient Health Questionnaire-15 (PHQ-15)

The 15-item version of the Patient Health Questionnaire (PHQ–15) is a somatic symptom severity subscale derived from the full PHQ. It assesses 15 somatic symptoms or symptom clusters that account for more than 90% of all physical complaints (excluding upper respiratory tract symptoms) reported by outpatients [33]. Each item is rated on a scale from 0 to 2. Scoring requires adding the numbers circled, and scores can range from 0 to 30.PHQ-15 scores of 5, 10, and 15 represent cut-off points for low, medium, and high somatic symptom severity, respectively [33]. This study's Operational definition for 'Predominantly Somatic Patients' derives from the above, with a minimum score of 5 on the PHQ-15. The PHQ–15 has been validated in primary care settings [33,34]. Previous studies found that the PHQ–15 exhibited good internal consistency (0.80) and corresponded to criterion indices of physical dysfunction, disability days, clinical visits, and the difficulty patients attributed to their symptoms [33]. Several studies have established its diagnostic validity [35,36] and its use in Nigerian studies[37]. In this study, PHQ-15 was used to recruit participants, predominantly somatic patients (scoring 5 points).

2.4.3. Mini International Neuropsychiatric Interview (Mini) Plus English Version 6.0

The Mini International Neuropsychiatric Interview (MINI) was a brief structured interview for major Axis 1 psychiatric disorders in DSM-IV and ICD-10. The MINI was developed jointly by psychiatrists and clinicians in the United States and Europe and designed for epidemiological studies and multicenter clinical trials. Validation and reliability studies have compared the MINI to the Structured Clinical Interview for DSM-III-R patients (SCID-P) and the Composite International Diagnostic Interview (CIDI). CIDI is a structured interview developed by the World Health Organization for lay interviewers for the International Classification of Disease, ICD-10. These studies show that the MINI has acceptably high validation and reliability scores and can be administered in a much shorter period (median 15 minutes) than the SCID and CIDI [38]. Each module of the MINI (e.g. psychosis) has two parts. The first is a screener, consisting of two or three main symptoms to assess the probability of the presence of the disorder. The second part is where the entire questions are applied if the participant has a high disorder probability. It has been used in some studies in Nigeria [39].

2.4.4. Procedure

Approval for the study was granted by the University of Nigeria Teaching Hospital Enugu (NHREC/05/01/2008BFWA00002458-IRB00002323). The research procedure was interview-based (face to face) and non-invasive. An information sheet on the purpose and procedure of the study was given to each participant. Two researcher assistants (resident doctors) trained in using the instruments helped collect data. The non-psychotic patients presenting with "predominantly somatic symptoms" (non-psychotics scoring 5 and above in the PHQ-15) were recruited consecutively until the sample size was completed. Each consenting participant signed informed consent.

2.4.5. Design and analysis

The collected data were entered and analysed using the IBM-Statistical Package for Social Science (IBM-SPSS-PC), version 21. The basic characteristics of the participants were presented as a proportion. Results were displayed in frequencies, tables and charts as applicable. All statistical tests were two-sided and were executed at a significant level of <.05.

3. Results

Table 2 shows the frequency of somatic symptom complaints in descending order.

The five most prevalent symptoms presented were heat sensations (75.3%), pain sensations (61.7%), crawling sensations (51.9%), heaviness (46.9%) and tingling/paresthesia (29.6%). Other vague somatic symptoms not initially captured in the research tool but specified by participants were captured under the rubric 'others'. These include, in order of frequency, pulling sensations in the head (6.2%), sensation of twisting muscles (4.9%), feeling of expansion of the head (3.7%), and gaseous build-up (3.7%), amongst others. The majority (91.4%) of participants had more than one symptom at the clinic, with a mean somatic symptom count of 3.43(±1.63). And a modal value of three symptoms. Somatic symptoms were located more on both head, neck and body regions (84%) together than on any region alone.

Table 3 displays the pattern of lifetime prevalence and current prevalence of psychiatric morbidities psychiatric in patients presenting with somatic complaints. Seventy-one (87.7%) had a current diagnosis of somatisation disorder (SD). And this was followed by Major Depressive disorder 22(27.2%). The least currently diagnosed morbidities were Social Anxiety disorder and Pain disorders, each with a prevalence of 2.5%.

Five participants didn't meet the criteria for any current psychiatric disorder accounting for 6.2%, and of the remaining 76, 93.4% had somatisation disorder, 28.9% had a major depressive disorder, and 10.5% had Generalised Anxiety Disorder.

Table 1 Distribution According to SocioDemographic Characteristics of Participants

Variables	**Patients**
	N = 81 (%)
Age (Years)	
18-45	55(67.9)
46-59	22(27.2)
60 and above	4(4.9)
Gender	
Male	35(43.2)
Female	46(56.8)
Marital Status	
Never married	36(44.4)
Married	40(49.4)
Separated	2(2.5)
Divorced	0(0.0)
Widowed	3(3.7)
Religion	
Christian	81(100.0)
Non-Christians	0(0.0)
Ethnicity	
Igbo	80(98.8)
Non-Igbos	1(1.2)
Level of Education	
No formal education	1(1.2)
Incomplete Primary	4(4.9)
Complete Primary	1(1.2)
Incomplete Secondary	5(6.2)
Completed Secondary	28(34.6)
Tertiary	42(51.9)
Employment Status	
Unemployed	6(7.4)
Working Part-time	14(17.3)
Working Full-time	44(54.3)
Full-time Study	12(14.8)
Retired	5(6.2)

Table 2 Pattern of symptoms of Somatisation in the Participants

Symptoms (n=81)	**Frequency**	**Percentage (%)**
Heat Sensation	61	75.3
Pain Sensation	50	61.7
Crawling Sensation	42	51.9
Heaviness	38	46.9
Tingling/numbness/Paresthesia	24	29.6
Sexual symptoms	10	12.3
Biting Sensation	9	11.1
Peppery Sensations	8	9.9
Tremor	6	7.4
Internal Soreness	5	6.2
Lump in throat	1	1.2
Fluidly Sensation	1	1.2
Breathing sensation	2	2.5
Others		
Pulling sensation in the head	5	6.2
Twisting Muscles	4	4.9
Expansion of Head	3	3.7
Gaseous Build up	3	3.7
Heat-Cold sensation	2	2.5
Lightheadedness	1	1.2
Ringing in the ear	1	1.2
Mouth Odor	1	1.2
Site of Symptom		
Head and Neck only	10	12.3
Body only	3	3.7
Head, Neck, and Body	68	84.0
Number of Symptoms		
Monosymptomatic	7	8.6
Polysymptomatic	74	91.4

As shown in table 4, which displays the pattern of co-morbidities among participants, 31 (38.3%) of participants met the criteria for somatisation disorder alone, 2(2.5%) of them met the criteria for depression alone, and none of them met the criteria for generalised anxiety disorder alone. Twenty (24.7%) had somatisation disorder that was comorbid with depression.

And eight (9.9%) had somatisation, which was comorbid with an anxiety disorder. And four (4.9%) had somatisation disorder comorbid with a mixed anxiety-depressive condition.

Table 3 Lifetime Prevalence and Current Prevalence of Psychiatric disorders among the Participants

	Frequency	**(%)**
Lifetime Prevalence (n=81) *		
Major Depressive Disorder	27	33.3
Dysthymia	7	8.6
Suicidality	1	1.2
Panic disorder	3	3.7
Social anxiety disorder	2	2.5
Alcohol abuse	7	8.6
Generalised anxiety disorder	8	9.9
Somatisation disorder	71	87.7
Pain disorder	2	2.5
Mixed anxiety depression	6	7.4
Current Prevalence (n=81) *		
Major Depressive Disorder	22	27.2
Dysthymia	4	4.9
Suicidality	0	0
Panic disorder	3	3.7
Social anxiety disorder	2	2.5
Alcohol abuse	4	4.9
Generalised anxiety disorder	8	9.9
Somatisation disorder	71	87.7
Pain disorder	2	2.5
Mixed anxiety depression	6	7.4

* Some participants presented with more than one diagnosis at any given time.

Table 4 Pattern of Comorbid Somatic Complaints and Psychiatric Morbidities among the Participants

Psychiatric Morbidities	**Frequency**	**Percentage**
Somatisation alone	31	38.3
Somatisation + depression only	20	24.7
Somatisation + Generalised Anxiety only	8	9.9
Somatisation +Mixed Anxiety Depression	4	4.9
Somatisation +Other Co-morbidities	8	9.9
Depression alone	2	2.5
Generalised Anxiety Disorder alone	0	0
Mixed Anxiety-Depressive Disorder alone	2	2.5
Others (Panic)	1	1.2
None	5	6.2

Table 5 shows the grouping of somatic symptoms into mild, moderate and severe severity. The majority (53.1%) rated their symptom severity as severe.

The Mean severity Score of somatic symptoms was 7.16 ± 1.40 cm.

Table 5 Somatic Symptom Severity Ratings Using Visual Analogue Scale (VAS)

Severity	Frequency	Percent (%)
Mild (0.1-5cm)	8	9.9
Moderate(5.1cm—7cm)	30	37.0
Severe (7.1cm—10cm)	43	53.1
Total	81	100.0

4. Discussion

Expression of psychological distress can manifest as physical (somatic) symptoms, which are common in adults attending general outpatient clinics. The distress causes the patient to visit multiple healthcare providers and to have many medical tests and unnecessary procedures [40]. In the present study, the age ranges of participants were from 18-65 years. This study reveals that most of the participants were young adults aged 18-65 years, which falls almost within Nigeria's economically active or working-age population of 15 – 64 years [41]. The participants had a mean age of 38.91 $\pm$13.19 years and a mean age at onset of illness of 32.99 years. Also, the result showed a mean duration of illness of 6.07 $\pm$ 7.58 years. Previous studies have reported higher rates in younger people and a mean age ranging from 37.7 to 40.2 years [42,43]. Besides, they agree that the disorder has an early onset [44] and runs an unremitting chronic course that averages between 6-18 years [45].

The data also gives credence to a foundational basis for one of the diagnostic criteria of somatisation disorder in the DSM-IV -early onset and a chronic course without the development of structural abnormality [46]. The majority of the participants were Christians, and nearly all were Igbo. The finding is understandable given that Christianity is the dominant religion in the South-East, and Igbos constitute 95% of the people in Enugu [47]. Igbo people (Ndi-Igbo) are indigenous to South-East Nigeria. There was a preponderance of female participants in this study, with the females also having a higher mean number of symptoms than the males. Previous studies have noted an excess of somatic symptoms among females in community and clinical studies [43,48]. The study found an association between a lower level of education and an increasing number of somatic symptoms; however, the association was not significant.

In this study, heat, pain, and crawling sensations were the most commonly reported somatic symptoms. In 61(75.3%) of the participants, heat sensations had the highest representation. Similar findings have been reported in previous studies done in General Outpatient clinics [42,49]. Somatic complaints vary regarding the patient's socio-cultural environment and life experiences [43]. Numerous studies from Nigeria suggest a culture-related pattern of somatic symptomatology, including heat sensation, crawling sensations, pain sensation, and tingling sensations [42,43,50]. Olatawura [51] had earlier described some of these culture-specific somatic symptoms, which were distinct from commonly encountered symptoms in the Western world [26;52], and equivalent observations by Makanjuola [53] led him to a similar conclusion. The DSM IV-TR notes equally point out that sensations of worms in the head or ants crawling under the skin are the usual complaints among the black Africans and South Asian countries as a pseudo-neurologic symptom of somatisation [46].

The pattern of presentation of symptoms in this study was polysymptomatic (having three or more symptoms), and this aligns with the findings of previous studies in Nigeria [26,49]. Regarding body representation of symptoms, participants had symptoms referred to both the body's head and body regions. Some authors have suggested that clusters of symptoms in some areas of the body may be symbolic in decoding the psychological origin of symptoms [54,55]. Others have suggested that it may represent a diagnostic entity like brain fag syndrome, with somatic clusters around the head region [53,56]. Or may describe a discrete type of somatisation disorder seen in Africans, like the factor 2 loading of somatic symptoms seen in Okulate et al. [27]. Other researchers have associated complaints around the head with goal frustration and complaints around the body with anxiety disorders [57]. Our study participants were a majorly

Working-class population with minimal academic activities, which will plausibly remove them from the brain-fag category that commonly occurs among the student population [56]. The spectrum of psychiatric morbidities among the

participants might also explain why symptoms' representation of body regions was more generalised than specific. Further investigation of the distress and somatic cluster models is ongoing and looks promising [24,54].

The study found that a total of 76 (93.3%) participants had psychiatric diagnoses, and somatisation disorder (SD) was 71(87.7%), the most prevalent psychiatric disorder, and was followed by depression and anxiety spectrum disorders. Of these participants with psychiatric diagnoses, 31(38.3%) had somatisation disorder alone, with about half of the participants presenting with psychiatric co-morbidities. Somatisation and major depressive disorder were the most common co-morbidity recorded.

Similar findings were found in previous studies on somatic patients in Africa [59,60,61] and the rest of the world [62,63]. These studies show a consistent association between somatic symptoms, depression, and anxiety disorder. In Nigeria, for instance, Erinfolami et al. [25], in a study in the general-outpatient setting, found that 80% of their participants with Medically Unexplained Symptoms had psychiatric diagnoses; 42(28%) of them had a depressive illness, 18 (12%) had anxiety disorders, while 15(10%) of them had a somatoform disorder. Likewise, data from another GOPD setting in Calabar yielded a similar result; 79% of their participants had psychiatric disorders; 48% had depression, 21% had anxiety, and 10% had somatoform disorders. This trend in literature probably suggests that patients with depression and anxiety presenting at the general outpatient clinics do so primarily with bodily symptoms rather than with psychological symptoms [64,65].

PHQ-15 is the somatic symptom module of the Patient Health Questionnaire, with a total of 15 items that represent the most prevalent DSM-IV somatisation disorder somatic symptoms [45]. In our participants, the prevalence of somatisation disorder was notably higher than reported in other previous studies [41,25]. The selection criteria used in recruiting participants for this study, which involves scoring 5 and above on the PHQ-15may have contributed to this high prevalence of SD noted. Scores of ≥5, ≥10, and ≥15 represent mild, moderate, and severe levels of somatisation with high reliability and validity in clinical and occupational health care settings [32,66]. Attainment of the minimum score of 5on the PHQ-15 in this study may have inherently selected patients with a higher likelihood of having somatisation disorder from the outset.

Another interesting observation of this study was that five (6.2%) participants did not meet the criteria for any psychiatric diagnosis. Previous studies have replicated this finding [24,59]. While it is a widespread impression that somatic symptom is mainly a feature suggestive of psychiatric morbidities, it is essential to note that these medically unexplained symptoms are not pathognomic of psychological disorders [58]. Possible underlying organic pathology may have remained undiscovered despite evaluations by the family physicians in this study. Inter-play of multiple factors arising from the patient, doctor or the health facility may be contributory, including the clinical experience of the managing physician, doctor-patient relationship, chronic and frustrating nature of the symptoms, and diagnostic facilities, amongst others. There is, thus, a great need for meticulous evaluation; to rule out legitimate and physical morbidity in these patients.

The majority of participants presented with severe symptoms, and the severity of symptoms was associated with psychiatric co-morbidity. Clinical and community studies have also observed a high rate of co-morbidities among these psychiatric diagnoses [67]. Syndrome overlap among these psychiatric disorders is frequent, especially between depression, anxiety and somatisation disorders. These disorders, when comorbid, contribute uniquely and cumulatively to the functional impairment of such patients with somatic symptoms [67]. These psychiatric morbidities may constitute the primary reason for increased health care utilisation in these patients [42]. The severity of symptoms that may result from these psychiatric co-morbidities might be plausible reasons for presentation in the hospital setting of study in the first place [42].

5. Implications for practice

Somatisation is often a diagnosis of exclusion, which can be costly and frustrating in patients with multiple chronic complaints [68]. The medical training emphasis on managing organic problems may leave physicians unprepared to recognise or address somatoform complaints [69, 70]. Severe, impairing somatisation symptoms can result in frequent medical help-seeking behaviour. Psychiatric co-morbidity occurs commonly, and the knowledge of the patterns of somatisation symptoms and comorbid psychiatric conditions is vital for adequate medical examination, investigations and treatment. Recognising personality traits, patients' attitudes to the symptoms and strategies to help reduce impairment will be central to successful management.

The lack of understanding of the somatisation experiences can influence family response to the symptoms, and problems in communicating effectively about emotionally-laden issues may contribute to the maintenance of the

disorder. Families tend to attribute the somatic symptoms to underlying physical pathology despite the absence of medical evidence. In some cultures, families may explain the physical symptoms in religious or culturally specific ways. The appropriate response to somatisation experiences can be achieved through psychoeducation for the family. With the knowledge of somatisation disorder, the attending physician reduces the peculiar burden these patients can have on the health system, especially in repeated unsatisfactory visits and seemingly ineffective treatment plans through the appropriate referral.

Limitations

The study focused on patients who visited the Family Medicine Clinic of the University of Nigeria Teaching Hospitals Enugu, Southeast Nigeria; therefore, the study sample was selective rather than representative and cannot be generalised to the whole country or residents of Southeast Nigeria. Measurement procedures used a self-report approach which may create social desirability bias and compromise the reliability of the findings. Participants may not have revealed or correctly reported themselves in a self-report survey. Social desirability bias could have influenced answers to sensitive questions about somatic symptoms. The relatively small sample and the self-selection of participants make this study vulnerable to sampling bias. Undiagnosed medical disorders can accompany somatic symptoms disorder. A number of the limitations of the present study could be addressed by future research.

6. Conclusion

This study has shown that recurrent, unexplained physical symptoms and psychiatric morbidity are common among patients that attend Family Medicine Clinic. The majority of these patients may react negatively to the suggestion of a referral to a mental health professional. There was associated co-morbidity in a significant proportion distinct from the somatisation symptoms. The study revealed that 93.3% of participants had psychiatric diagnoses, and somatisation disorder was the most prevalent psychiatric disorder at 87.7%. The most prevalent somatisation symptoms were heat, pain, crawling, heaviness, and tingling/paresthesia. The majority of the respondent were female, and the mean age at onset of somatisation was 32.99 years. The mean duration was 6.07 years (±7.58). Knowledge of the patterns of somatisation symptoms and comorbid psychiatric conditions is vital for the effective management of these patients.

Compliance with ethical standards

Acknowledgments

We wish to acknowledge the nurses of the Family Medicine Clinic of a University Teaching Hospital in Enugu, Southeast Nigeria for their cooperation and the two researcher assistants (resident doctors in Psychiatry) trained in using the instruments who helped to collect the data.

Disclosure of conflict of interest

No conflict of interest.

Statement of ethical approval

Approval for the study was sought and obtained from the institutional review boards (IRB) of the University of Nigeria Teaching Hospital Enugu (NHREC/05/01/2008B-FWA00002458-IRB00002323). Therefore, it has been performed following the ethical standards laid down in the 1964 Declaration of Helsinki and its later amendments.

Statement of informed consent

Informed Consent was taken from all participants included in the study.

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