JOURNAL OF MENTAL HEALTH AND HUMAN BEHAVIOR

2013, Volume 18, Issue 2

TABLE OF CONTENTS

Editorial

Self-help approaches for common mental health problems: Potential utility in Indian context

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At the outset, it needs to be emphasized that the treatment of severe, chronic, complex or recurrent mental disorders is best delivered by a trained professional using multi-pronged approach in a clinical setting. The self help approaches are suitable in the context of milder mental conditions, with relatively preserved functioning and social support. Self help approaches have found relevance in the fields of counseling and clinical psychology, but there is an increasing movement for a greater integration of the self help approaches in mental health practice, wherever feasible .

The Self-Help, as discussed here, refers to any structured, systematically developed approach or intervention which focuses on self-reliance or self-guidance and may be sought along a continuum of approaches relying to some degree on external professional help. [1] The definition excludes any lay and non-scientific self-help materials. The self-help groups, being a separate topic in itself, are also not being discussed here. Self help may have some overlap with the psycho-educational material but the crucial difference is that the former is aimed at the acquisition of skills as well as knowledge needed to manage one's condition, while latter is aimed solely at transfer of knowledge.

The Self-Help based approaches can be as follows: [2-4]

- The patient receives a standardized treatment method (e.g. self-help manual, bibliotherapy) with which he can help himself/herself with minimal or less frequent help from the therapist. It describes the intervention in sufficient detail, so that the patient can work it through independently.
- The use of written materials or computer programmes or the listening/viewing of audio/video tapes for the purpose of gaining understanding or solving problems relevant to a person's developmental or therapeutic needs.

There are a variety of situations, especially involving common mental problems, for which intensive involvement of a clinician on a regular basis is either not feasible or practical. Typically in a low-resource country like India, there is a huge mismatch between the mental health needs and the trained professionals. Further, the frequent access is problematic for people who reside in distant places and can's commute too often. In the tertiary care institutes, there may be a long wait-list for clinician-delivered psychotherapy. It is in the face of these practical constraints that the patients suffering from milder problems may be advised to rely on self-help based approaches during the wait-period or as an alternate or adjunct to professional care .

Several potential advantages of integration of the self help psychotherapeutic interventions in mental health practice include:

For patient

- low cost
- privacy; issues pertaining to stigma are avoided
- rely on one's own potential ; self-efficacy
- can be used for preventive (e.g. stress management or relapse prevention) or promotive purposes (e.g. assertiveness training)

- overcome practical constraints of timing and distance

For therapist

- Free up the therapist time for patients requiring intensive individually-delivered sessions
- Can augment or supplement the therapist's sessions and efforts

Public health benefits

- Has the potential to reduced burden of milder mental health problems (milder anxiety, mild depression) or as means of lifestyle or health promotion
- Empirically supported self help approaches can be useful in primary care settings

The ultimate goal of all self help approaches is to ensure that the positive behaviors generalize to the person's environment.[1] Self help approaches have been advocated for a variety of mental health conditions. Common psychiatric disorders being mild depression, anxiety and alcohol abuse. In addition, a wide variety of psychological issues (e.g. stress and its management), lifestyle and health issues can be addressed by self help approaches. Any person contemplating self-help needs to first get a clinical consultation and assessment in order to determine the extent and severity of the problem. Clinician has to exercise caution in recommending the self help approaches after a thorough evaluation of patients and ruling out presence of mental health issues needing more directive care. It is important to ensure that the self help materials are evidence based, empirically supported and relevant to the problem at hand.

One of the crucial questions, however, is the degree of efficacy or effectiveness of self help approaches. Several elements which are in-built in a clinician's consultation process are lacking in the self help approaches e.g. lack of a close human interaction, therapeutic alliance and flexibility of clinical judgment based on observing patient's response/cues. Accordingly, it is important to research the evidence of efficacy or effectiveness in the context of various mental health problems, quality assurance, type of patients selected, components and cultural sensitivity of the intervention.

Most of current evidence base on self help approaches comes from western settings. An early meta-analysis of 40 self help studies testing 61 treatments, using no-treatment, wait-list, or placebo comparisons, found an overall treatment effect size of 0.76 at posttreatment and 0.53 at follow-up.[5] Some target problems were more amenable to self-help approaches, including skills deficits and diagnostic problems, such as fears, depression, headache, and sleep disturbance. On the other hand, habit disturbances such as smoking, drinking, and overeating, were less amenable to self-help. Several recent cohort or randomized trials have provided evidence for efficacy of various self help approaches e.g. Guided Self Help (GSH) for psychological distress using para-professionals, [6,7] acceptance and commitment therapy (ACT) for reducing depressive symptomatology, [8] cognitive behavioral therapy (CBT)based self help for depression [9] etc.

A meta-analysis of self help interventions for depressive symptoms found that greater effectiveness was associated with recruitment in non-clinical settings, patients with existing depression (rather than those 'at risk'), contact with a therapist (i.e. guided self-help) and the use of cognitive behavioural therapy (CBT) techniques. [10] Another meta-analysis of CBT based studies for self-help concluded that there is no significant difference in effectiveness by type of support – guided, minimal contact and self-administered – all being equally effective. [11]

In a recent meta-analysis [12] for self-help treatment for anxiety disorders among adults, with a total sample of 56 articles with 82 comparisons, a moderate to large effect size (g=0.78) was found on comparison with wait-list or placebo. When self-help treatment was compared to face-

to-face treatment, results indicated a small effect that favored the latter (g=-0.20). It was concluded that self-help is effective in the treatment of anxiety disorders, and can be offered as part of stepped care treatment models in community services. Similarly, another meta-analysis found e-self- help interventions to be effective for curbing problem drinking. [13]

In Indian context, it is noteworthy that the National Drug Dependence Treatment Centre, A.I.I.M.S., New Delhi has also recently launched a website ' alcoholwebindia.in' providing self help for problematic alcohol users which is a user-friendly and interactive program suited for Indian context. [14] The present issue of JMHHB discusses the development of a self help manual for obsessive compulsive disorder (OCD) patients in Indian setting and testing it in a small-scale pilot study. [15] Similarly, few other studies using computer-based CBT for depression are also underway. There is an urgent need for development of the print and web based self help resources accessible in national and regional languages suited to Indian settings. It can later be integrated into the general mental health and primary care settings.

A pilot program to aid the health professionals in integrating the self help material in mental health practice was tested in a rural community setting.[16] A high quality resource library with print, audiotape and videotape self help materials about common mental health issues was developed for a Canadian rural community. Health professionals and community members were provided with training to use and integrate these materials to supplement their practice. About 60% of resources in library were checked out in 14-month period, most commonly resources for parenting, depression, addiction, death and dying. The program envisaged the introduction of a stepped care model and providing the health professionals with a 'prescription pad' of resources in future. There are several such potential future applications of self help approaches depending on their acceptability and efficacy.

To conclude, self help approaches offer a potentially useful way of providing access to effective psychosocial interventions with variable degree of therapist contact. Most self-help approaches are based on principles of CBT approach and present evidence is encouraging towards the effectiveness of structured self-help approach, at least compared to placebo or no-treatment. With the increasing focus on the use of technology to deliver self-help treatments, there is a need to ensure that self-help approaches are empirically supported, suits the public health needs and are sensitive to cultural aspects.

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Review article

Common mental disorders: A review

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Abstract: The concept of common mental disorder (CMD) came up, considering high prevalence of depression, anxiety and unexplained somatic illnesses (nowadays called as somatoform disorders) and high degree of co-morbidity between these disorders in primary care setting, similarity in epidemiological profiles, and treatment responsiveness. Common mental disorders are classified in ICD-10 as 'neurotic, stress-related and somatoform disorders' and 'mood disorders.' However, a large number of primary care attenders are considered subliminal cases by traditional diagnostic criteria. The integration of mental health in primary care is acknowledged as the only feasible way of managing the burden of CMD. Despite increasing awareness, primary care physicians fail to diagnose and treat 50 to 75 per cent of patients suffering from common mental disorders in both the developed and the developing world. The obstacles faced in implementation or scaling up efficacious interventions for primary care setting in low-middle income countries are quite different than those in developed countries. In several studies, collaborative stepped care led by lay health workers at the primary care has been found to be feasible, effective and cost- beneficial in managing common mental disorders in these countries. Further research initiatives and reforms in health policy are expected to bring forth necessary changes.

Key words: common mental disorder, primary care, low-middle income countries

Introduction

The concept of Severe Mental Illness (SMIs) comprising mainly of Schizophrenia, Manic depressive psychosis (MDP) and Epilepsy was brought forward by World Health Organization (WHO) in 1960s-70s. Later, the concept of common mental disorder(CMD) came up, considering high prevalence of Depression, Anxiety and Unexplained somatic illnesses (nowadays called as somatoform disorders) and high degree of co-morbidity between these disorders in primary care setting, similarity in epidemiological profiles, and treatment responsiveness.[1] Since the individual and distinctive role of common mental disorders in producing functional disability has been proved across culture in WHO multi-centre cross-national collaborative study [2] in 1994, CMD as a group has gained importance in research and public health policy across countries. Common mental disorders are classified in ICD-10 [3]as 'neurotic, stress-related and somatoform disorders' and 'mood disorders.' However, a large number of primary care attenders are considered subliminal cases by traditional diagnostic criteria. The integration of mental health in primary care is acknowledged as the only feasible way of managing the burden of CMD in developing countries.[4]

Prevalence, risk factors and burden

In the WHO 15 country study, 1500 subjects were screened across 15 sites and stratified on the basis of GHQ scores.[5] The selected patients were then assessed at baseline and also followed up at 3 month and 12 month. Their results showed a worldwide prevalence of common mental disorder to be 21.2 %(depression: 10.4%, anxiety disorder: 7.9%, somatisation disorder: 2.9%) at general health care setting. The highest prevalence rates for any disorder were found in Santiago (53%) and Rio de Janeiro (34%), and the lowest was in

Shanghai (8%). Rates in the other centres ranged from 9-28%.In most centres, the disorders with relatively high prevalence were depressive episode, generalized anxiety disorder, and neurasthenia. All specific psychiatric disorders had comorbidity rates higher than 50% except alcohol dependence. Subsequently, Patel (1999) in a review of 8 epidemiological studies of CMD in South Asia, reported similar high prevalence of CMD in primary care (26.3%).[6] Naqvi (2010) reported the prevalence of CMD to be 30% to 40% in the primary care setting.[7] So the prevalence of CMD was found to be uniform across the settings and in both developed and developing countries. Data from western countries shows that common mental disorders (CMD) present as a primary or associated condition in at least 20 per cent of primary care outpatients.[8,9,10]In fact, more patients with mental disorders are cared for in the primary care sector than in the mental health sector.[11]Similarly, the majority of persons with CMD in developing countries seek health care in primary care.[12]Several studies have examined the mental health needs of patients attending primary care centres in India and have documented that 17%-46% of patients attending these facilities suffer from CMDs.[13-20]

Poverty, low education, unemployment, poor housing Separation or divorce and female gender all tend to be associated with higher rates of CMD and may be seen as risk factors for the development of CMD.[20-22] There is growing evidence that gender disadvantage, experiences of gender violence (in particular, when perpetrated by an intimate partner) [23-25]and low levels of decision making [26]are key risk factors for CMD in women. However, no biological or hormonal basis could be established for this differentiation.[27]

CMD is also often associated with stress related to family, work, social isolation, chronic physical illness, substance abuse and lifestyle pressures,[28]emphasising the important role of context for the development and understanding of disorder.[29] Both chronic disease and psychosocial problems are circumstances where some level of distress might well be expected and which may sometimes act as a trigger for CMD.[30] However, to focus narrowly on CMD in these cases poses a risk of medicalization and individualisation of social and economic problems when a broader psychosocial perspective may more adequately capture their complexity.[31]If not addressed, the socioeconomic factors may undermine the effectiveness of any treatment provided.

As regards severity, CMD refers to non-psychotic[32] and, generally, mild to moderate rather than severe manifestations, with relatively low risk of suicide.[33] Nevertheless, CMDs, which are often chronic (up-to 50% cases), frequently result in significant occupational role dysfunction, physical disability which is not explained by physical health status and interpersonal difficulties which impose burden on families, friends and employers and also consumes scarce health resources.[5,28]CMDs are often associated with physical health conditions, particularly those that are chronic and dramatically increase the risk of poor health outcomes.[33] Common mental disorder is also relevant in some special sectors like in maternal and child health. It has been estimated that about 10-30% of mothers in the developing countries suffer from depression.[34] Depressed mothers were found to be less likely to take care of their baby's needs.In a population based cohort study, babies of mother who were depressed in pregnancy or postpartum period were 5 times more prone to be under weight or stunted at 6 months than non-depressed mothers.Depressed mothers were also more likely to not breast feed or to not complete immunization.[35]Suicide is also a leading cause of death among pregnant and postpartum women in the developed & developing countries.[36]

Identification and related issues

Despite increasing awareness primary care physicians fail to diagnose and treat 50 to 75 per cent of patients suffering from common mental disorders in both the developed and the developing world.[8-9,37-40]This is partly due to complex presentation of CMDs. They frequently but not invariably occur together and often show a "shifting combination of symptoms"over time, making differentiation and classification difficult.[30, 41] The assessment may be further complicated because sub-threshold psychosocial symptoms are common in primary care and, despite not being sufficient for formal diagnosis, may cause significant impairment and disability and affect health outcomes.[42] Presentation of CMD may also vary culturally, "shaped by cultural idioms of distress which can make them appear to be very different in different settings" [43] and complicate identification and diagnosis.[44]This applies not only when culture is seen as referring to differences between major national or international groupings, but also within national groups, most obviously along local subcultural and socioeconomic cleavages.[45] In this regard, a key factor is the understandings and health-seeking behaviours of health care users. Value and belief systems that do not recognise emotional distress as warranting attention or, as requiring health care intervention, as opposed to other forms of assistance or support,[46-48] may obscure or distort what is presented.[22] In these cases, identification of a mental health problem involves complex negotiation with the user to arrive at a diagnosis of a mental health condition.

In addition, the typically mixed and fluctuating presentation of CMD does not in any case fit easily with the categorical diagnostic systems characteristic of specialist mental health (psychiatric) care and may contribute to the generally low rates of detection of CMD in the primary care referred to above. Nor do the specialist diagnostic systems make adequate provision for sub-threshold conditions, despite their association with impairment and disability. Varying cultural manifestations may also be misdiagnosed using specialist diagnostic systems developed mainly in Western countries. Alternative diagnostic systems developed for primary care (such as the ICD-10 PHC diagnostic and management guidelines for mental disorders [49]have not been shown to significantly improve diagnosis,[50] at least not without fairly intensive, hands-on training.[46] Study by Avasthi et al [11]showed that PRIME-MD PHQ could be a valuable screening instrument for Common mental disorders in primary care and general medical practice in India.However; it has not been widely studied thereafter.

It is possible that low rates of detection of CMD are to some extent also a function of the health worker's conception of his/her role, the process of the patient–health worker consultation, as well as constraints on the time available for the consultation .[46]Most general health workers do not view CMD as being psychiatric or mental disorders, which may partly explain the relatively low recognition rates for CMD in primary care. It is only when the illness becomes chronic and severe when the psychological symptoms become more prominent, when it is detected by the primary care physicians.[51]

Management

Scenario in high-income countries

Although evidence of the efficacy of antidepressants and brief psychological treatments has been available for decades.[52] Efforts to improve the primary care treatment of CMD in developed countries include the development of treatment guidelines for CMD and dissemination of guidelines via the education of primary care providers. Physician education has been found to be associated with an increase in the recognition of CMD, but not with lasting improvements in patients' clinical outcomes.[32] Successful quality improvement

programs in developed countries have included, in addition to improving recognition rates, strategies which address other challenges such as the chronic and recurrent nature of CMD and the low adherence with evidence based treatments.[53-57] A recent systematic review of the constituents of complex, collaborative care interventions which improve effectiveness for CMD found that the use of routine screening of all attenders and the professional background of staff and specialist supervision predicted a favourable outcome.[58]

Scenario in low-middle income countries

The effectiveness evidence available from developed countries cannot be readily transferred to developing countries due to the widely different health systems. There are a number of obstacles to scaling up efficacious interventions to the 'real-world' primary care context in developing countries.[43,59-61]Apart from low recognition rate of CMD by primary care doctors due to various reasons discussed earlier, the other obstacles are inadequate use of evidence-based medications, including antidepressants (at inadequate dosage or for too short durations), and the frequent use of non-evidence-based medications, [62]the lack of human resources for psychosocial treatments, shortage of skilled mental health resources , and finally, low adherence with treatments.[63]Various policy related issues like cost of drugs, inadequate supply, absence from the country's essential drug list, lack of training, barriers to non-doctors prescribing antidepressants had also been implicated earlier in this regard.[5] World Health Organisation (A WHO Educational Package Mental Disorders in Primary Care, 1998)[64] has been developed for promoting the integration of mental health into general health Care are to improve recognition and treatment of CMD at this level and to alleviate the widespread shortage of more skilled mental health professionals, especially in developing countries.[65]This educational package provides comprehensive insight about mental health assessment, severity assessment, interviewing techniques and also provided mental disorder assessment guides, information handy-cards, patient information leaflets, questionnaires and referral tips. Although training programmes for health workers often show an increase in knowledge, the improvement in recognition rates are transient,[61] and translation to improved clinical outcomes has not been evaluated.[43,59]

The effective management of these diseases typically requires a collaborative effort across the health workforce as well as continuing care for months or even years. In several studies, collaborative stepped care led by lay health workers has been found to be successful in the primary care of depression and/or anxiety in low- or middle-income countries.[66-69]This approach involves "task shifting" and encourages the most effective sharing of tasks between medical, specialist and non-medical staff. There are various "steps" or levels of treatment, with the most intensive treatments reserved for the most severe cases. Used together, the collaborative-care and stepped-care components of this strategy can maximize the efficient use of scarce resources, especially in those public health facilities where case management has previously been relatively poor.[70] Few studies have already shown it to be an effective approach in developing countries.[66, 71]Till date, three randomised controlled trials had investigated the efficacy of combined pharmacological and psychological (interpersonal therapy) treatments delivered in a stepped care model for CMD in India, Uganda, and Chile were published recently.[72-75]All the studies targeted poor populations and tested treatment options that were intended to be feasible, affordable, and acceptable to the populations being studied. All the trials showed significant improvements in disability levels in the intervention group. The Chilean trial found that the additional cost for each depression-free day was roughly equivalent to the cost of a single bus fare.[67] The effectiveness trial in India involved both public and private facilities, because in India's private facilities, the quality and costs of care are both generally higher than in public facilities. The results of this trial indicate that

such task-shifting can reduce the total costs of the care of patients with depression and/or anxiety and improve health outcomes in public facilities. In such facilities the intervention was cost–effective by WHO's CHOICE programme criteria.[76] Although the strategy appears particularly attractive in the many low-income countries with inadequate numbers of physicians and trained nurses, there is considerable institutional resistance to the widespread implementation of the strategy and also concern that the quality of care will deteriorate.[77]

Conclusion

Although CMDs are prevalent worldwide and impose a huge burden on the health care system of a country, but the obstacles faced in providing adequate care for the sufferers of this group of disorders varies between the high- income countries and resource-poor low-middle income countries. Similarly the needs are also different with different health systems. The resource -poor countries need to develop adequate work force at the primary care level in order to identify and treat CMDs effectively. With little research available, interventions by non-psychiatric work force at the primary care level or in stepped care model, appear feasible and effective and also cost-beneficial in terms of reduction in health care cost and disability in low-middle income countries including India. Given the diversity of cultures and differences within India, it is important to conduct similar studies in different states to obtain an idea regarding its wide applicability, feasibility and effectiveness in diagnosis and treatment of CMD. Changes in the country's health policy appears to be a mandate to bring forth substantial changes.

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Original article

Influence of clinical variables on Quality of Life in primary Chronic Daily Headache patients

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Abstract

Background: Primary chronic daily headache (CDHs) has a considerable negative impact on patient's life. It leads to poor quality of life (QoL) and diminished ability to function in day to day life. Yet, there is very limited data in this regard from India. **Aim:** The aim was to determine influence of clinical characteristics of CDH patients on QoL. **Method**: A total of 50 consecutive primary CDH patients diagnosed as Chronic tension type and Chronic Migraine as per International Headache Classification 2003 crietria and attending psychiatric outpatient clinic were studied. They were evaluated using a specially designed proforma and QoL was evaluated using the WHOQoL-Brief (Hindi) instrument. **Results:** The total duration of CDH has a significant negative correlation with QoL physical health & social relationship domain. The severity of headache was also negatively correlated with QoL in physical health, psychological health, and social relationship domains. No significant correlation of QoL was observed with age of onset, type of headache, past and family history of headache or frequency of headache. **Conclusion**: Primary CDH have significant negative impact on QoL of patients.

Keywords: quality of life, chronic daily headache, chronic tension type headache, chronic migraine

Introduction

The Constitution of the World Health Organization (WHO) defines health as a state of complete physical, mental, and social well-being not merely the absence of disease. It follows that the measurement of health and the effects of health care must include not only an indication of changes in the frequency and severity of diseases but also an estimation of well being and this can be assessed by measuring the improvement in the QoL related to health care.[1-3] WHO defines QoL as individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment.[1-3] It has been suggested that QoL may be uniquely affected by specific diseases like primary CDH which is a fairly common disabling disorder that afflicts individuals across all stages of adulthood and is marked by relatively high rates of remission and incidence.[4-9] It is diagnosed when headaches occur more than 4h/day, 15 headache days per month or more, over a period of 3 consecutive months.[10]

Health-related QoL of patients is being accepted as a concept of paramount importance and thus given utmost attention in the West; however, in India as yet, little work has been done on the QoL especially pertaining to CDH. Several studies published over the last decade have shown that patients with primary headaches report markedly impaired QoL and decreased ability to function.[4-9, 11-13] However, most studies have focused on migraine[4,6,8,11-12,14-17] and very few studies on chronic headache disorders have been published.[5-7,9,13] CDH is influenced by multiple factors[18-24] and so is QoL which is also influenced by multiple headache related clinical variables[23-25] .Thus, we planned this study to determine the influence of the clinical variables on the QoL of patients with CDH.

Material and methods

Sample

For the purpose of the present study, 50 consecutive patients of primary CDH diagnosed as per International Headache Classification (IHC; 2003) criteria with duration greater than 4 hours a day, and frequency of 15 or more days monthly for at least 3 months attending the outpatient department (OPD) of Psychiatry/ Neurology, Government Medical College and M.B.S Hospital, Kota, India fulfilling the criteria given below were registered.

Inclusion Criteria

- Patients of primary CDH fulfilling criteria for chronic migraine and chronic tension type headache (IHC 2003).
- Patients aged between 18 - 60 years of age.
- Patients of either gender.

Exclusion Criteria: Those who were illiterate, had comorbid psychiatric disorder, chronic physical illness, organic brain disorder or substance dependence, head injury or seizure disorders were excluded. Patients of secondary headaches and mixed headaches were also excluded.

Tools of Assessment

- A specially designed proforma was used for evaluate the socio demographic data & clinical data such as age of onset, duration of CDH, severity of headache, type of headache primary CDH.
- Quality of Life Instrument (WHO QoL - BREF) (Hindi):[26-28] which is a structured self report generic instrument could be used in general population to assess a wide range of domains applicable to a variety of health states, and produces an aggregate score and four domain scores instead of individual facet scores. It consists of 26 items. Each item uses a Likert-type five-point scale and are distributed in four domains including (a) physical health and level of independence (b) psychological well being (c) social relationships and (d) environmental. There are also two items that are examined separately: one which asked about the individual's overall perception of QoL and the other which asked about the individual's overall perception of his or her health. Domain scores are scaled in a positive direction (higher scores denote higher quality of life). The mean score of items within each domain is used to calculate the domain scores compatible with the scores used in WHOQoL-100 and subsequently transformed to a 0-100 scale using the following formula:

$$\text{Transformed score} = \frac{\text{actual raw domain score - lowest possible raw domain score}) \times 100}{\text{Possible raw domain score range}}$$

Where more than 20% data were missing from an assessment, the assessment was discarded. Additionally, where up to two items were missing from a domain, the domain scores were not calculated with exception of social domain, where the domain was not calculated even if one item is missing.

Procedure

The subjects meeting the criteria laid down for the purpose of this study were explained about the study and written consent was taken. They were interviewed immediately after their registration and all information was recorded in a using specially designed proforma. Diagnosis of CDH was confirmed by a neurologist. Following this, the patients were administered WHO QoL scale BRIEF (Hindi) version. Statistical analysis was done using Pearson Correlation coefficient.

Results

The study included 50 patients with primary CDH (Table 1). The mean age of the sample was 32.68±9.53 years. The mean age at onset of headache was 26.68±7.56 years. The average duration of primary chronic daily headache was 3.22 years with 54% of the sample with duration < 1 year. When asked to rate on 0- 10 scale of severity, the headache was severe (8-10), moderate (4-7) and of mild (0-3) quality in 40%, 50% and 10% respectively. (Table 2) The mean QoL domain scores are shown in Table 3 and correlations of clinical characteristics with QoL domains have been shown in Table 4.

Table 1:Socio-Demographic Profile

Variable	**CDH patients n = 50 (%)**	
Age (years)		
18-25	09	(18%)
26-35	26	(52%)
36-45	10	(20%)
>45	05	(10%)
Gender		
Male	23	(46%)
Female	27	(54%)
Religion		
Hindu	33	(66%)
Muslim	17	(34%)
Education		
Primary	23	(46%)
Middle	10	(20%)
Secondary	08	(16%)
Graduate	05	(10%)
Post graduate	03	(06%)
Professional	01	(02%)
Domicile		
Urban	29	(58%)
Rural	21	(42%)
Marital status		
Married	43	(86%)
Unmarried	07	(14%)
Family size		
<5	19	(38%)
5-10	24	(48%)
11-15	04	(08%)
>16	03	(06%)
Family type		
Nuclear	30	(60%)
Joint	20	(40%)
Occupation		
House maker	18	(36%)
Skilled/unskilled worker/Labourer	12	(24%)

Farmer	04 (08%)
Service	07 (14%)
Businessman	05 (10%)
Student	03 (06%)
Unemployed	01 (02%)
Monthly family income	
<5000	16 (32%)
5001-15000	20 (40%)
15001-25000	04 (08%)
>25000	10 (20%)

Table 2: Clinical Profile of sample

Variables	**CDH Patients n = 50 (%)**
Age of onset of headache (years)	
<18	7 (14%)
18-25	15 (30%)
26-35	22 (44%)
36-45	3 (6%)
>46	3 (6%)
Duration of headache(years)	
<1	27 (54%)
1-2	5 (10%)
2-3	5 (10%)
3-4	5 (10%)
>4	8 (16%)
Severity of headache	
Mild (0-3)	5 (10%)
Moderate (4-7)	25 (50%)
Severe (8-10)	20 (40%)
Type of headache	
Chronic tension	28 (56%)
Chronic migraine	22 (44%)
Past history of similar headache	
Absent	41 (82%)
Present	9 (18%)
Family history of headache	
Absent	38 (76%)
Present	12 (24%)

Table 3: Mean Scores of Quality of Life

QoL Domain	**Mean±SD**

Physical Health	38.28±17.05
Psychological Health	39.54±14.91
Social Relationship	45.66±19.19
Environmental	51.16±16.36

Table 4: Correlation between QoL and Clinical Profile

Variable	Physical Health	Psychological Health	Social Relationship	Environmental
Age of Onset	-0.213	-0.125	-0.043	-0.221
Duration of Headache	-0.395**	-0.265	-0.344*	-0.035
Severity of Headache	-0.411**	-0.386**	-0.317*	-0.269*
Type of Headache	-0.151	-0.287	-0.035	-0.071
Past History of Headache	0.137	0.008	-0.016	-0.149
Family History of Headache	-0.004	-0.049	-0.118	0.182

$p<0.05$, $**p< 0.01$

Discussion

The QoL is commonly perceived as a multidimensional concept which encompasses psychological and social well-being, physical health, health perception and pain.[29-30]. The lower QoL is associated with poor role functioning, mental health and social functioning. [9, 16, 31]

Similar to finding of present study, previous studies have shown that QoL can be linked to the number of days with headache, that is QoL is significantly affected by the duration of the headaches.[32] Headache intensity or the severity appears to be a other major determinant of QoL.[32-34] Changes in headache intensity and frequency were related to changes in self-reported QoL within all QoL subdomains. More headache frequency coincided with a lower self-reported QoL.[35-36]

Unlike the findings of this study, other clinical variables such as age of onset of headache have been reported to be significantly associated with high Migraine Disability Assessment Scores (MIDAS), with those under 25 years demonstrating higher MIDAS scores than other age groups. Headache frequency was not clearly related to disability or psychological factors.[33]

In contrast to current study finding, previous studies have shown that QoL differs among headache diagnoses. In a study, chronic migraine had poorer QoL as compared to chronic tension type headache and in another, tension-type headache patients have a poor health associated with mental health than patients with migraine.[24,36] In another similar study, QoL was reported to be equally impaired in two types of headache patients (tension type headache and migraine type).[37]

At present, the health care planning decisions are usually based on their probable effect on mortality rate. It seems evident however that in order to guarantee a correct and balance approach to chronic illnesses which are not fatal but which may constitute a serious handicap to sufferers, more attention should be paid to quality of life in these patients. Future studies on headache should therefore also measure impact of various variables & treatment on QoL. This will guarantee a better therapeutic benefit to the headache sufferers.

All these studies point at the serious influence of CDH on the life of the patients. However, the effects various clinical variables on the overall QoL in CDH, specifically Chronic Tension Type Headache have not yet been studied. Thus, this study redirects the attention towards working for better QoL in CDH patients.

The results of the current study should be interpreted in the background of some limitations. Current study was based exclusively on hospital based outpatient sample and therefore, may not be the representative sample of patients in community. Patient suffering from only chronic migraine and chronic tension type headache of CDH were taken up and the study sample size may be regarded as small, limiting the generalizability of findings. The QoL instrument WHO QoL-BREF used in current study is a generic instrument that was not designed specifically for headache patients, using a combination of both generic and specific instrument would have been the better choice. This instrument only assesses the subjective QoL, while the addition to objective measures might have been useful.

To conclude, the study demonstrates that the primary CDH have significant negative impact on QoL of patients, and highlights the need to be carry out further studies in this direction.

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Source of funding: Nil
Conflict of Interest: None declared

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Original article

Psychiatric morbidity, personality pattern and stressful life events in functional and organic gastrointestinal disorders

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Abstract

Background: Literature suggests that psychosocial factors play an important role in individuals with functional gastrointestinal (GI) disorders. **Aims**: To assess the psychiatric morbidity, personality pattern and stressful life events in patients with functional GI disorders and compare them with organic GI disorders and healthy controls. **Method:** Each of the three study groups (functional, organic GI disorders, healthy controls) had 50 cases each. Patients with functional GI disorders included patients with Irritable bowel syndrome satisfying ROME III criteria. All three groups were assessed using semi-structured proforma, ICD-10 clinical interview, Hamilton Anxiety Rating Scale, Beck Depression Inventory, Psychoticism Extraversion Neuroticism inventory (PEN inventory-hindi version) and Presumptive Stressful Life Event scale. **Findings:** Groups were comparable on sociodemographic variables. Among patients with functional GI disorders, 64% had psychiatric co-morbidity (commonly dysthymia, anxiety, depression), 58% had neuroticism and 56% had ≥1 life stressor/s in last one year temporally associated with either exacerbation or onset of symptoms. Mean depression and anxiety scores were significantly higher in functional group compared to organic and healthy control group. The stressful life events were significantly higher in functional compared to healthy control, but not organic, group. **Conclusion**: Findings from the study lead to a better understanding of psychological and psychiatric aspects of functional GI disorders. Research in this direction may contribute to improved treatment strategies.

Keywords: *Gastrointestinal disorders, Psychiatric morbidity, Psychosocial factors, Irritable bowel syndrome*

Introduction

It is well known that psychopathology plays an important role in individual with functional gastrointestinal (GI) disorders. Functional GI disorders can be defined as the variable combination/s of chronic or recurrent gastrointestinal symptoms not explained by structural or biochemical abnormalities.[1] But it is still not clear whether these abnormalities are the cause, the result, or side effects of the disorder. Compared with healthy control subjects, patients with functional GI disorders are more anxious, depressed, neurotic, and hypochondriac. Compared to patients with upper abdominal symptoms of organic origin, they are more anxious and tense. [2,3]

Functional GI disorders may constitute up to a half of clinical case load of gastroenterologists. The frequency and severity of the psychopathology is somewhere in between that of patients with medical illnesses on one hand and those with neuroses on the other. [4,5] Although it is not clear whether stress, for example resulting from major life events, is associated with the onset of illness, most recent studies conclude that there is an association with both the presence and severity of symptoms. [6,7]

The firm distinction between organic and functional GI disorders is becoming more blurred as the psychological influence on gut function are better understood.The categorization of gastrointestinal disorders in to functional and organic has tended to reinforce a dualistic concept of bio-psycho-social model in gastroenterology.[7] This is seen more clearly in reference to peptic ulcer, previously recognized as psychosomatic, later as organic, the

interest in psychological aspects of peptic ulcer have waned markedly. This has led to a very narrow view of organic nature of peptic ulcer, which at times tends to ignore psychosomatic factors even when these are important.
The present study aims to assess the psychiatric co-morbidity, stressful life events and personality pattern in functional GI disorders and compare them with organic GI disorders and healthy controls**.**

Materials and Method

This was a cross sectional study carried out at Department of Gastroenterology and Department of Psychiatry, PBM Hospital Bikaner between September 2010 to June 2011. Patients of either gender, aged between 20-50 years, with organic GI disorders (n=50), functional GI disorders (n=50) and healthy controls (n=50) were recruited from out-patient clinic, Department of Gastroenterology. Patients with functional GI disorders included patients satisfying ROME III criteria [8] for Irritable bowel syndrome. Patients with severe physical illness, unexplained weight loss, uninvestigated rectal bleeding, substance abuse, unable to complete the questionnaire were excluded. Healthy controls were recruited from among the relatives of patients attending the clinic after excluding any medical or psychiatric illness by clinical history.
The gastroenterological and psychiatric diagnosis were made by a gastroenterologist or a psychiatrist respectively. Written consent was taken from all the participants.

Tools of assessment

Each participant was assessed using the following tools

- Semi structured pro-forma to record demographic, socio-economic[9] and clinical variables.
- ICD-10 diagnostic criteria for mental and behavioral disorders [10]
- Hamilton Anxiety Rating Scale[11]
- Beck Depression Inventory[12]
- Psychoticism Extraversion and Neuroticism (PEN) Inventory-Hindi version[13]
- Presumptive Stressful Life Events (PSLE) Scale [14]

Statistical Analysis
The data obtained from assessments was analysed by using unpaired student's t-test and chi-square test.

Results

As seen from Table 1, there was no statistically significant difference among functional, organic and healthy control group in terms of socio-demographic variables.

The prevalence of overall psychiatric co-morbidity as per ICD-10 was high in the functional group (64%) compared to organic (22%) and healthy control group (12%). Most patients in functional group had neurotic illnesses (dysthymia, anxiety, depression) except one patient diagnosed as schizophrenia. (Table 2). Mean depression and anxiety scores were significantly higher in functional group compared to organic and healthy control group. The stressful life events were significantly higher in functional group compared to healthy control, but not organic group. (Table 3). On comparison across groups on PEN Inventory, a higher neuroticism was found in functional group compared to organic and healthy control group (Table 4).

Table 1: **Socio-demographic variables**

	Functional group (n=50)	**Organic group(n=50)**	**Healthy control group(n=50)**
Age (in years)[χ2=7.588, p= 0.269]			
20-30	17(34%)	12(24%)	15(30%)
30-40	13(26%)	20(40%)	17(34%)
40-50	17(34%)	15(30%)	13(26%)
50-60	03(6%)	0 3(6%)	05(10%)
Gender [χ2 = 2.207, p= 0.331**]**			
Male	35(70%)	30(60%)	28(56%)
Female	15(30%)	20(40%)	22(44%)
Marital Status [χ2 = 1.927, p= 0.926**]**			
Unmarried	8(16%)	05(10%)	06(12%)
Married	40(80%)	44(88%)	42(84%)
Divorcee	01(2%)	0	01(2%)
Widow	01(2%)	01(2%)	01(2%)
Religion [χ2 = 1.714, p= 0.424**]**			
Hindu	38(76%)	32(64%)	35(70%)
Muslim	12(24%)	18(36%)	15(30%)
Family Type [χ2 = 0.663, p= 0.955**]**			
Nuclear	24(48%)	28(56%)	26(52%)
Extended nuclear	16(32%)	14(28%)	15(30%)
Joint	10(20%)	8(16%)	09(18%)
Education [χ2 = 7.128, p =0.522**]**			
Illiterate	14(28%)	22(44%)	18(36%)
Primary	13(26%)	12(24%)	14(28%)
Secondary	15(30%)	6(12%)	7(14%)
Post Graduate	3(6%)	4(8%)	3(6%)
Professional	2(4%)	02(4%)	2(4%)
Occupation [χ2 = 4.91, p =0.848**]**			
Employed	24(48%)	26(52%)	25(50%)
Unemployed	9(18%)	6(12%)	6(12%)
Housewife	10(20%)	14(28%)	15(30%)
Student	6(12%)	03(6%)	04(8%)
Retired	01(2%)	01(2%)	0
Income [χ2= 9.248, p= 0.508**]**			
0–1000	06(12%)	6(12%)	8(16%)
1001–2000	08(16%)	11(22%)	10(20%)
2001–3000	15(30%)	06(12%)	08(16%)
3001-4000	09(18%)	08(16%)	10(20%)
4001-5000	08(16%)	12(24%)	06(12%)
>5000	04(18%)	07(14%)	08(16%)

Table 2: Point prevalence of psychiatric co morbidity

Diagnosis (ICD-10)	Functional group (n=50)	Organic group (n=50)	Healthy control group(n=50)
Dysthymia	17 (34%)	6 (12%)	2(4%)
Anxiety Disorders	7 (14%)	2 (4%)	1 (2%)
Depression	4 (8%)	1 (2%)	1 (2%)
Dissociative(conversion) disorder	2 (4%)	2(4%)	0
Obsessive compulsive disorder	1 (2%)	0	1(2%)
Panic disorder	0	0	1(2%)
Schizophrenia	1 (2%)	0	0
Total	32 (64%)	11 (22%)	6 (12%)

Table 3: Comparison of depression, anxiety and stressful life events across the three groups

	Mean±SD	Comparison groups	t	p
Depression scores†				
Functional group (A)	18.80±4.66	A-B	5.73	0.0001
Organic group (B)	13.92±3.81	B-C	4.04	0.0001
Healthy control group (C)	10.74±4.03	C-A	9.25	0.0001
Anxiety scores†				
Functional group (A)	30.08±8.73	A-B	6.274	0.0001
Organic group (B)	21.04±5.25	B-C	16.15	0.0001
Healthy control group (C)	7.16±3.059	C-A	17.57	0.0001
Stressful life events				
Functional group (A)	0.72±0.83	A-B	1.214	0.22
Organic group (B)	0.54±0.64	B-C	3.07	0.002
Healthy control group (C)	0.20±0.45	C-A	3.89	0.002

†Depression, Anxiety and Stressful life event scores on Beck's Depression Inventory, Hamilton Anxiety Rating scale and Presumptive Stressful Life Events scale respectively; $p<0.05$: significant

Table 4: PEN Inventory

	Functional group (n=50)	Organic group(n=50)	Healthy control group(n=50)
Psychoticism	4 (8%)	0	1 (2%)
Extraversion	17 (34%)	24 (48%)	24 (48%)
Neuroticism	29 (58%)	26 (52%)	25 (50%)

Discussion

The study sheds light on the psychiatric morbidity, personality pattern and stressful life events in functional GI disorders (irritable bowel syndrome) and compare them to organic GI disorders and healthy controls.

There were more male patients across all three study groups which is in contrast to most of the western studies. This difference may reflect the differential health care seeking behavior, and social factors hindering female patients from seeking help. Psychiatric morbidity was present in a large number (64%) of patients with functional GI disorders. This interface of psychiatric and functional GI disorders was found in most previous studies which have found psychiatric morbidity rates varying between 20% and 60%. [15,16]

Two-thirds of functional group had a diagnosable psychiatric comorbidy (compared to 22% in organic and 12% in healthy subjects). Depressive disorders were the commonest comorbidity (dysthymia: 34% and depression: 8%) followed by anxiety disorders (14%), which is in concordance with the results of previous studies.[5,15,16] However, when the individual disorders were studied, the rate of depression in patients with functional GI disorders in the present study (8%) was slightly less than these previous studies (between 12-36%). Though major depression was found to be the commonest co-morbid disorder in various studies, [17,18] some studies [15] reported more anxiety disorders, especially generalized anxiety disorders. The rates of anxiety disorders have varied between 21% to as high as 52.4% in studies on functional GI disorders. [15,17,19,20] The reason for variations in the prevalence rates of psychiatric co-morbidity among different studies could be due to variations in the material used, the kind of population studied and setting e.g. clinical or community, or because of lack of objectivity.

The results from this and other similar studies have shown that a good number of patients (36% in present study) with functional GI disorders did not fulfill the diagnostic criteria of any organic or psychiatric disorders. These patients cannot be subsumed under any psychiatric diagnosis according to current diagnostic categories.

Stressful life events were significantly higher in functional group patients compared to healthy controls ($p=0.001$). Though we do not have a complete understanding of pathophysiology of functional GI disorders, evidence abnormal processing of visceral nociceptive signals in the brain-gut axis, leading to visceral hypersensitivity.[21] Abnormalities in autonomic, neuroendocrine and immune functions have been seen. And all these physiological functions are subjected to the influence of psychological stress in the emotional motor system (visceral motor cortex, the amygdala, the hypothalamic nuclei). This neural network involves corticotrophin releasing factor which activates both the autonomic nervous system and hypothalamus-pituitary-adrenal axis.[22,23] Increased beta-adrenergic activity is significantly correlates with visceral hypersensitivity.[24] The functional GI disorders and its relationship with psychological stress need to be evaluated while looking into this new emerging concept.

Psychiatric disorders like depression, anxiety and stressful life events could adversely affect the patient functioning and outcome. Early identification and treatment of psychiatric co-morbidity and reduction of life stresses can reduce the severity and frequency of GI symptoms. Careful identification of the psychological, social and behavioral risk factors is important to design psychotherapeutic interventions. Limitations of this study include a hospital based sample and non consecutive sampling. However, research in this direction, using a more rigorous study design and larger sample, may lead to a better understanding of functional GI disorders and thus, contribute to improved treatment strategies.

Acknowledgement
We heartily acknowledge the support provided by Department of Gastroenterology, S.P. Medical College, Bikaner in data collection.

**Paper presented as free paper in Indian Psychiatric Society (North Zone) Conference held on 27–28 October 2012 at Sri Ganganagar (Rajasthan).*

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Source of funding : Nil
Conflicts of Interest: None declared

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Original article

Impact of Working Conditions on Job Stress and Job Satisfaction among Tertiary Care Hospital Nurses

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Abstract

Background: Stress usually originates from unmanageable external demands. Nursing profession brings with it multiple demands posing a challenge for nurses who are working in stringent conditions. **Aim:** The aim of the study was to explore the impact of different working conditions on job stress and job satisfaction in tertiary care hospitals. **Method:** A total of 100 nurses working in Emergency, Intensive care unit (ICU), Operation theatre (OT) and Wards were selected. Job stress was assessed by using Occupational Stress Index and Job Satisfaction Scale was used to assess the job satisfaction of the nurses. **Results:** Findings revealed that role overload and role ambiguity are two factors of job stress differed significantly in different working conditions of hospital nurses, F (role overload) = 3.72, $p<0.05$, F (role ambiguity) = 8.21, $p<0.01$. Further, nurses from OT scored highest followed by ICU, wards, and emergency areas. Other factors were role conflict, under participation, and low status (F = 3.76, 3.43, 3.03 respectively, $p<0.05$). OT nurses scored highest followed by wards, ICU, and emergency nurses. Job satisfaction also differed significantly F = 4.51, $p<0.01$. **Conclusion:** It was found that ward nurses were experiencing highest job satisfaction followed by nurses from emergency, ICU, and OT. More studies are required to explore the factors determining the satisfaction and sources of stress in Indian setting.

Keywords: occupational stress, job satisfaction, nurses, mental health.

Introduction:

Workplace stress has long been recognized as a challenge for the nursing profession. Stress is perceived when environmental demands exceed the individual resources. Role-stress occurs through perceived mismatch between the expectations of the role and the accomplishment. [1] Lazarus considered stress as the transaction involving an individual and his or her environment.[2] The work culture is a complex construct in organizations, consisting of different attitudes, perceptions, values and beliefs, and plays a significant role in moderating the relationship between work stress and job attitudes.

Work is a central part of almost everyone's life. Job life is one of the important parts of our daily lives which cause a great deal of stress. Due to the competitive nature of the job environment most of the people in the world are spending their time for job related work purposes which results in ignoring the stressor influencing their work and life. Perceived satisfaction on the job is reflected by the needs of sense of fulfillment and expectation for the job to be interesting, challenging and personally satisfying. [3] Job satisfaction is also an achievement indicator in career developmental tasks [4] and is associated with the psychological [5] and individual well-being. [6]

Job satisfaction is employee reactions toward their work experiences, emotional state or reactions toward the job , [7]how positive people feel about their jobs, aspects of their jobs [8] and

work situations. Satisfaction on the job reflects important employee attitude towards their job, [8] indicating what makes a job enjoyable and a satisfying working environment.[3] Thus, job satisfaction is often considered to be an indicator of employee emotional well-being or psychological health leading to indicate behavior that could effect organizational functioning. Low job satisfaction can be an important indicator of counterproductive employee behavior and can result in behavior such as absenteeism [9] and turnover intentions. [9, 10] Job satisfaction can also partially mediate the relationship of psychosocial work factors to deviant work behaviors. Therefore, maintaining and enhancing job satisfaction is important in order to establish quality worker, workplace and work itself.

Job stress has been linked to a wide range of adverse effects on mental, physical and organizational health. Despite evidences that "systems" approaches are most effective in reducing the adverse impact of job stress, prevalent practice is dominated by worker-focused or individual-focused strategies in the absence of commensurate intervention to improve working conditions. [11] Successful management of stress at the workplace has become a topic of great interest over the last decade. In view of the escalating costs associated with workplace injuries and the increasing demands placed on workers in the work context, the need for effective stress management within acceptable time frames and at minimal cost are paramount. [12]

The pressure of work, the deadlines they have to meet and the physical demands of the job take toll on the physical and mental health of the workers, along with their social life. In various studies, there have been findings of correlation of workplace environment with increased fatigue, stress, depression and general health complaints.

Managing occupational health problems is not just about providing things like health checks before someone starts work, first aid, welfare, general information about health, well-being and fitness for work, or managing sickness absence and return to work, there are many things you can do to reduce risks to workers' health. Several researchers reported that in industrial setting job satisfaction and job involvement increases with age and as a result occupational stress would decrease [13] in view of dearth of conclusive studies about whether the same this is true with the medical, nursing and paramedical hospital staff at different age levels.

Therefore, a study was conducted in a health care organization to find the stress and job satisfaction level among the nursing staff. As nurses form the backbone in every health care organization, it will be much effective to a make an analysis from that point of view.

Materials and method

Sample

The study was conducted at one of the premier multispecialty teaching Hospital of North India. The hospital has bed strength of 686 with 52 beds in ICU and 22 OT tables. The Hospital has 328 nurses (including NS and ANS) with the division vis. a vis. 217 (66.15%) nurses in wards, 62 (18.90%) in OTs, 44 (13.42%) in ICU and 5 (1.52%) in administration works. The study has been taken with nurses involved in patient care only.

The present research investigation was comprised of 100 nurses working in the different service areas (wards, ICU, OT, emergency areas) of the Hospital. The ethical clearance was obtained from authorities. The consent of the participants was taken and was assured that their scores would be kept confidential. Anonymity and confidentiality of the subjects was maintained during the study and were given full autonomy to withdraw from the study at any time.

Each day one nurse was contacted as per her feasible time. All the participants were administered job satisfaction scale [14] and occupational stress index [15] in a envelope and was asked to return to

the researcher on the next day. Each area was covered for a week, so that all participants can be covered and there is no doubling.

Tools of assessment:

- **Semi-structured proforma:** This data sheet contained items related to the personal and professional information of study subjects such as age, gender, marital status, number of children, educational qualifications, work experience, work pattern and satisfaction with salary etc.
- **Job Satisfaction Scale (JSS) [14]:** It was used to assess the job satisfaction. The job satisfaction questionnaire consisted of two subscales measuring job satisfaction with 30 items rated on five points Likert scale ranging from 1 (excellent) to 5 (very poor). Participants scoring above 63, 56-62 and below 55 were considered to be high on job satisfaction, moderately satisfied, and low on job satisfaction respectively.
- **Occupational Stress Index (OSI) [15]:** It was used to measure the extent of stress which employees perceive. The scale consisted 46 item on the five point scale 1 (strongly disagree) to 5 (strongly agree). It has 12 sub scales namely role overload, role conflict, role ambiguity, unreasonable group and political pressure, responsibility for person, under participation, powerlessness, poor peer relations, intrinsic impoverishment, low status, strenuous working condition and unprofitability. The reliability index ascertained by split half method and Cronbach alpha coefficient for the scale as a whole were found to be .935 and 90 respectively. The reliability indices of the 12 sub scale also computed split half method. The validity of OSI on the basis of coefficient of correlation between the scores on the OSI and measure of job involvement work motivation ego strength and job satisfaction were found to be -.56 (n=225) -.44 (n=2000 -.40 (n=205) and -.51 (n=500) respectively.

Results

Out of total of 100 nurses enrolled in the study, 96 (96.0%) responded, while two returned the incomplete questionnaire, so the results were taken for 94 participants. Majority (68/94) were female. Their mean age was 27.88 + 5.97 years (range 23-38 years). In professional qualification, 64/94 (68.08%) had diploma and 30/94 (31.92%) had a degree course. Out of the total 69/94 (73.40%) were in regular job.

Out of the total, 30/94 (31.9%) was posted in ICUs, 21/94 (22.3%) in Emergency, 18/94 (19.2%) in wards and 25/94 (26.6%) in Operation theaters. Majority (88%) was working as Nursing Sister Grade II. The mean experience of nurses working in an ICU was 3.18 + 4.18 years. Majority (88%) had less than 5 years of experience working in ICU.

Out of the total, 38 were not satisfied with their job having a JSS score < 55, 29 were moderately satisfied having score between 56-63, while rest 27 were highly satisfied with their job.

Table 1: Occupation Stress and Job Satisfaction of Nurses working in different hospital areas (N=100)

Variable	Emergency (n=21)	ICU (n=30)	OT (n=25)	Wards (n=18)	F	p
Occupational Stress Index (OSI)						
Role Overload	20.21	21.22	23.39	21.00	3.719	0.016 *
Role Ambiguity	11.94	12.72	14.86	12.50	8.213	<0.001**
Role Conflict	15.05	15.27	17.22	15.40	3.756	0.014 *
Unreasonable Group &	12.10	12.33	13.82	12.40	2.047	0.115

Peer Pressure						
Responsibility for person	9.89	9.72	9.00	9.10	0.861	0.465
Under Participation	11.42	12.11	13.60	12.30	3.428	0.022 *
Powerlessness	8.68	9.83	10.30	9.80	1.885	0.140
Poor Peer Relations	11.36	11.11	11.95	12.20	0.691	0.560
Impoverishment	12.36	12.44	13.43	12.40	1.219	0.309
Low Status	8.73	9.11	10.40	9.30	3.026	0.035 *
Strenuous Working Condition	12.78	14.00	14.60	14.00	1.511	0.219
Unprofitability	6.36	7.33	6.95	7.80	1.474	0.229
Job Satisfaction Scale (JSS)						
JSS score	61.16	56.22	54.43	62.70	4.513	0.006**

*p<0.05 ; ** p< 0.01

The results shown in Table 1 show that role overload and role ambiguity factors of job stress differed significantly in different working conditions of hospital nurses, F (role overload) = 3.72, $p<0.05$, F (role ambiguity) = 8.21, $p<0.01$. Mean values indicated that OT nurses scored highest followed by ICU, wards, and emergency nurses (mean score for role overload = 23.39, 21.22, 21, & 20.21 respectively and mean scores for role ambiguity = 14.86, 12.72, 12.50, & 11.94 respectively).

F ratio for role conflict, under participation, and low status (F = 3.76, 3.43, 3.03 respectively, $p<0.05$) were found statistically significant. Mean values indicated that OT nurses scored highest followed by wards, ICU, and emergency nurses (mean score for role conflict = 17.22, 15.40, 15.27, & 15.05 respectively, mean scores for under participation = 13.60, 12.30, 12.11, & 11.42 respectively, and mean scores for low status = 10.40, 9.30, 9.11, & 8.73 respectively). The common trend was that the staff of OT nurses was experiencing highest job stress and emergency nurses were experiencing lowest job stress due to role overload, role ambiguity, role conflict, under participation, and low status.

Job satisfaction also differed significantly F = 4.51, $p<0.01$. It was found that ward nurses were experiencing highest job satisfaction (Mean = 62.70) followed by nurses in emergency (Mean = 61.16), ICU (Mean = 56.22), & OT (Mean = 54.43).

Discussion

The present study was conducted to identify various sources of occupational stress and job satisfaction among nurses working in emergency, ICU, OT and Wards. It was seen that OT nurses are under more stress as compared to emergency ICU and wards, there is high ambiguity of their roles in OT & it somewhere same in ICU and wards, but in emergency role ambiguity is low. It was found that ward nurses were experiencing highest job satisfaction followed by nurses in emergency, ICU, then OT.

It could be that nurses from OT might be dissatisfied with the style of supervision and the way conflicts are resolved in the hospital. It is well documented that undesirable work schedules, lack of autonomy, role ambiguity and lack of input into decision-making can affect satisfaction with supervisors & cause role conflict, OT nurses having high role conflict, those from emergency ICU and wards their condition is somehow manageable. Another reason could be that in OT there is Lack of communication and cooperation between professionals i.e. poor peer relations was major source of distress and dissatisfaction among nurses. For them the impatience and feeling of aggressiveness comes when they could not get things done on time.

Higher stress in OT nurses could be due to lack of man power, higher intake of patients referred from Punjab and Haryana, strenuous work conditions and schedules, number of task need to be performed. American Hospital Association [16] stated that hospitals in particular are facing a workforce crisis. The demand for acute care services is increasing concurrently with changing career expectations among potential health care workers and growing dissatisfaction among existing hospital staff. Another reason could be that OT nurses have to involve in more intensive patient care, it also demands for decision making at times which adds to their responsibility, hence adds to more stress. [17]

In ICU there is hard and irregular schedules, nature of work is more demanding. Because of higher role overload, role ambiguity, role conflict the nurses might experience lower job satisfaction. In wards and emergency when questioned about the organizational aspects, majority felt secure about the stability of their organization and level of job security. They believed that their job improved their quality of life despite many sources of high pressure. All these things could have resulted in higher job satisfaction despite of work overload, and work pressure. It could be that nurses in wards and emergency were satisfied with the organization because the types of work they are involved in, in terms of tasks and functions. The study by Cavalheiro et al[18] showed the presence of stress related to work dissatisfaction that is the activities regarded as critical situations in intensive care units might create symptoms related to cardiovascular, digestive and musculoskeletal disorders. Stress is present in nurses' working in intensive care units, related to characteristics of the area itself, causing dissatisfaction and stress-related symptoms.

To conclude, the nurses working in OT and ICU, encounter various occupational stresses as compare to emergency and wards, which can affect their job satisfaction and professional capabilities. Sources of occupational stress are clinical workload, difficulty in relationships, poor recognition of hard work, non conducive organizational climate, immense personal responsibility, managerial role difficulties, home/work imbalances and daily hassles. Sources of satisfaction included organizational security, organizational commitment, job satisfaction, personal influence and control but a general dissatisfaction with the organizational functioning.

Acknowledgement

We heartily acknowledge the useful help provided by Miss Amanbir Kaur Assistant Nursing Superitendent, Department of Nursing GMCH 32 Chandigarh for data collection.

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Brief communication

Self-help manual approach for the treatment of Obsessive Compulsive Disorder: Results from a Pilot Study

Sneh Kapoor, Manju Mehta , Rajesh Sagar

Abstract

Background: Obsessive Compulsive Disorder (OCD) is associated with significant disability, poor quality of life and high family burden. Though treatable, some patients may not respond adequately and many others may not seek formal treatment. Hence, the need for self-guided therapy is felt, but no such material is available for Indian patients. **Aim:** The primary aim was to develop a self help manual for OCD and conduct a pilot study to assess feasibility and reduction in symptom severity after manual use. **Method:** A self-help manual was developed to suit the Indian population. For pilot study, four patients diagnosed with OCD and aged 15-45 years, were recruited from the psychiatric outpatient services at AIIMS, New Delhi who completed 6-8 sessions. Baseline and post- intervention assessments were done using Yale Brown Obsessive Compulsive Scale (YBOCS). **Results**: Thedevelopment and components of the self-help manual are discussed. Significant improvement (defined as 35% or more reduction in YBOCS scores) was seen among three of four patients after use of manual. **Conclusion**: The manual suited to Indian settings appears feasible to use and facilitated reduction in OCD symptoms in a small-scale pilot, with further testing planned on a larger sample.

Introduction

Obsessive Compulsive disorder (OCD) is characterized by the occurrence of unwanted and intrusive obsessive thoughts or distressing images; usually accompanied by compulsive behaviors performed to neutralize the obsessive thoughts or images or to prevent some dreaded event or situation.[1] OCD is believed to be the fourth most common psychiatric diagnosis after phobias, substance- related disorders and depression, some estimates arriving at it being found in as many as 10% of outpatients in psychiatric clinics. The global burden of OCD has been estimated to be 2.5% of total global Years lived with disability (YLD).[2] Lifetime prevalence in India has been estimated at 0.6% .[3] OCD is associated with significant disability, poor quality of life and high family burden which is comparable to schizophrenia.[4]

A two-pronged approach is generally employed for the management of obsessive compulsive disorder, incorporating both pharmacological and psychological interventions. A large number of studies have found pharmacotherapy, behavior therapy or a combination of both is effective in reduction of obsessive compulsive symptoms. A meta-analytic comparison study of OCD treatments, after controlling of a number of confounding variables, found that clomipramine, Selective serotonin reuptake inhibitors (SSRIs) and Exposure and Response Prevention (ERP) all had comparable results.[5] Studies suggest that behavior therapy not only provides longer-lasting gains but also results in greater short-term improvement in symptoms.[6,7] Cognitive behavioral therapy (CBT) using exposure and ritual prevention can lead to a significant reduction in OCD symptoms in patients who remain symptomatic despite an adequate trial of serotonin reuptake inhibitors.[8]

Lucock has defined Guided Self-Help as a structured treatment method with which the patient can help themselves with some support from another person. Various different aspects of self-help have been extensively evaluated and systematically reviewed for anxiety [9-11] and depression [10,12,13] and it has been endorsed as an intervention for mild to moderate anxiety and depression.

Self help manuals not only serve as an adjunct to therapy but may also be used as a low intensity intervention of their own standing. This need is more strongly felt within the Indian settings, particularly within the public sector, where lack of resources and long waiting periods can sometimes be primary factors in reduced treatment seeking, and thereby leave a large section of patients untreated. Not only are self help manuals beneficial to patients in terms of cost effectiveness, reduction of stigma and labeling, overcoming the geographical barrier and self pacing of therapy, but also serve as a means to reduce the burden on therapists' time and resources thereby increasing the outreach of therapy.

A self help manual approach is therefore required to bridge the gap, but no such development or adaptation has as yet been carried out in the Indian context, which is the primary rationale for planning the current study.

The current study is aimed at developing a self help manual for use in the treatment of OCD, and evaluating its use in terms of feasibility and reduction in symptoms of OCD. The overall study has been planned to be carried out in three phases:

I. Development of the Manual;

II. Pilot Testing of Manual, and,

III. Assessing feasibility and symptom reduction in a larger population.

This paper focuses on the first two phases i.e. manual development and pilot testing.

Study Phase I : Development of the manual

The self help manual was developed following principles of CBT, primarily ERP. The manual has been developed as a comprehensive module comprising psycho-education, monitoring of compulsive behaviour, self-directed exposure and response prevention, and evaluation. (Figure 1) It has been designed for use with males and females between the ages of 15 and 45 years, and suffering from mild to moderate OCD. The manual entails self directed CBT for use over 6-8 weeks/ sessions, and has been developed in English and translated into Hindi as well. A review of current advances in the practice of ERP, as also literature on the use of self help techniques and existing manuals was carried out to facilitate in the development of the manual. Post development, the manual was sent to experts in the field of OCD and CBT for review. The final print of the manual incorporated not only the techniques, but clinical experience of the supervising guide, feedback from other experts in the field, and review from three non professionals to ascertain degree of understandability and ease of comprehension of the manual. Table 1 shows the various components of the self-help manual for OCD.

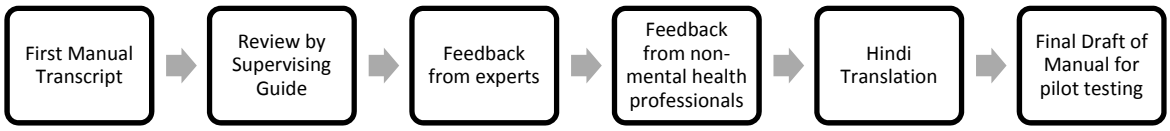

Figure 1: Manual Development

Table 1: Components of the Self-help manual for Obsessive Compulsive Disorder

1. Psycho-education • For Patient and co-therapist
2. Self monitoring • Identification • Recording • Identifying triggers
3. Self directed Exposure Response Prevention (ERP) • Construction of hierarchies • Self directed exposure, response prevention
4. Dealing with obsessions • Educating about cognitive therapy techniques. • Evidence seeking, behavioural experiments. etc
5. Self evaluation • Establishing target behaviour • Monitoring and recording progress

Study Phase II: Pilot Testing and its Findings

The manual was pilot tested on a convenience sample of four patients taken from psychiatric out-patient clinic with an aim to ascertain feasibility and reduction of OCD symptoms. All participants were between 15 to 45 years of age, belonging to either gender (two males, two females) and diagnosed with OCD by a Psychiatrist. Inclusion criteria also included patients with basic reading and writing ability in Hindi or English and who have been stabilized on standard medication for at least 4 weeks. Patients with below average intellectual ability, concurrent psychiatric diagnosis and having previous experience with psychotherapy were not included in

the study. The Mini-International Neuropsychiatric Interview (M.I.N.I.)[14] was used to rule out presence of co morbid psychiatric conditions.

After obtaining informed consent from patients, the manual was introduced.. Parts of the manual were handed out session wise, that is, each chapter as mentioned was assigned for a period of two weeks. Starting from the third session, self evaluation (chapter 5; Table 1) was carried out simultaneously with other chapters and discussed in each follow up. A family member was assigned as co-therapist and instructed to read section for co-therapists in manual and to facilitate in practice of ERP for the patient. All four participants used the English self help manual, and undertook between 6 to 8 sessions. Post – intervention assessment was carried out in a session following the completion of manual (i.e. one week after termination).

The sample was assessed on the Yale-Brown Obsessive Compulsive Scale (YBOCS).[15] YBOCS was used for pre- and post- assessment to ascertain reduction in symptom severity.

Results from pilot study: All four participants were between 15 to 45 years of age, with two males and two females. The ICD-10 diagnosis of OCD-predominantly compulsive type was made by a psychiatrist for all four participants (three had compulsive checking, one had compulsive cleaning). Table 1 shows the change in YBOCS scores in each of the four participants recruited for the pilot study. Results reflect a significant decrease (mean 40.6%, range 27.7% - 67.5%) in OCD symptoms as reported on YBOCS, over a 6 week period. Three-fourths of participants showed clinically significant improvement, defined as greater than 35% change on YBOCS scores.

Table 1: Yale Brown Obsessive Compulsive Score (YBOCS): Pre-and Post-intervention scores in the pilot study (n=4)

Participant no.	Pre-Intervention YBOCS	Post-Intervention YBOCS	% change in scores
1	18	13	27.8%
2	37	12	67.6%
3	35	13	62.9%
4	29	17	41.4%

Mean reduction in YBOCS scores : 40.6% ; 3/4ths reported significant improvement , defined as 35% or more reduction in YBOCS scores

Discussion

The present study documents an improvement in all four participants, with a mean reduction of 40.6%. Three of the four participants had significant improvement, that is more than 355 over the six week period of intervention. Findings from the current pilot are in concordance with findings of a previous study of eight patients (aged 11-16 years) diagnosed with OCD, which employed the use of a self help manual for treatment. [16] There was significant reduction in Children-YBOCS symptom severity over the 8 week course of the intervention.

The present results are also in concordance with results of an RCT conducted by Tolin et al[17] to compare efficacy of self directed ERP with that of therapist directed intervention that found that subjects showed clinically significant improvement under both conditions.

Improvement in symptoms can be corroborated by verbal reports of subjective improvement in overall functioning by participants. Informants and co-therapists report better interpersonal functioning at home, greater involvement in social and family environment, and greater independence with respect to daily functioning. The current manual can, therefore, be said to aid reduction in symptoms of OCD. No attrition reflect feasibility and acceptance of such an approach to therapy.

There are many obvious advantages to self help manuals over traditional psychotherapy such as the ability to self pace, allowing individuals who are unable to receive mental health services due to geographical barriers receive treatment, cost-effectiveness for those who cannot afford psychotherapy or pharmacotherapy, providing individuals with privacy that can lessen stigmatization or labeling, and providing individuals with coping skills available after treatment has ended. [18] Research evidence suggests that guided self-help where a practitioner is involved in supporting or coaching the person is far more effective than the provision of information alone.[10]

In an attempt to reduce treatment costs, studies have evaluated a stepped care approach to therapy. [19-21]

As preliminary findings, the results of the study are encouraging as a means for reduction in symptom severity of OCD. Though concrete findings about its use as a stand-alone therapy may be presumptive, self help manuals can be said to be a good adjunct to psychotherapy. Self help approaches, and the current manual, can be used as a preliminary therapy modality as part of a stepped care approach. A stepped care approach to therapy involves beginning with a low intensity approach, for example, self help and moving on to individual therapy, through a series of steps which may involve videos, guided self help and partial therapist involvement. Within the Indian setup, particularly in the public sector, self help manuals could be used as a means to involve waitlisted patients in therapy at an early stage so as to maintain patient motivation for therapy. Manuals could be used as for purposes of psycho-education to disseminate information and address doubts that patients may have about the illness in a comprehensive manner. The current manual can be used for further study for comparison of self help manual based intervention with therapist directed intervention and waitlist controls.

To conclude, the manual developed for Indian settings appears to facilitate reduction in OCD symptoms in a small-scale pilot, though further testing needs to be done on a larger sample.

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Brief communication

Psychiatric morbidity in patients presenting with ocular pain

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Abstract

Background: The eye and ocular pain is a particularly neglected area in psychosomatic medicine, and only a few studies are from India. **Aim**: This study aimed to find out the nature and extent of psychiatric morbidity in patients with ocular pain. **Methods:** Consecutive 400 patients presenting with ocular pain were selected and examined for organic pathology. All were administered the 60-item General Health Questionnaire and Psychiatric Examination. **Results:** Among those with no organic pathology (n=48), all (100%) had GHQ score>12 in contrast to only 11% among those with an organic pathology (n=352). The common psychiatric disorders in the sample were depression, generalized anxiety disorder and dissociative disorder. **Conclusion**: The study delineates the need to assess psychological morbidity in subjects with non-organic ocular pain.

Keywords: psychiatric disorders, ocular pain

Introduction

Pain is 'an unpleasant sensory and emotional experience, associated with actual or potential tissue damage or described in terms of such damage.'[1] Pain is a somato-psychic experience and its intensity depends both on the extent of tissue damage and patient's psychological state. Psychological factors are integrated into the pain experience. Pain can also aggravate and precipitate psychiatric disorder. There is generally a poor correlation between tissue pathology, disability and treatment response.[2] Also, patients with higher pain-related anxiety tend to over predict new pain.[3]

The eye and ocular pain is particularly a neglected area of psychosomatic study, although it is the central point in expression of emotions. WS Inman, an ophthalmologist as well as a psychoanalyst, extensively studied the psychosomatic aspects of eye disorders, especially on styes[4]. A psychological assessment of 50 patients suffering from eye disorders suggested that emotional difficulties could provoke their onset or contribute to their non-responsiveness to treatment.[5]

This study aimed to find out the nature and extent of psychiatric morbidity in patients with ocular pain.

Material and methods

Consecutive 400 subjects presenting with ocular pain in the Department of Ophthalmology attached to NIMS University, Jaipur were selected for the study. It was carried out jointly by the Psychiatry and Ophthalmology departments during June 2008 to December 2009. The inclusion criteria were; a) consecutive patients attending Ophthalmology OPD and b) patients having ocular pain. The exclusion criteria included Patients with ocular morbidity with no ocular pain. A detailed history, eye examination and physical examination were carried out to rule out any other physical illness. All the subjects were administered the General Health Questionnaire (GHQ: Goldberg,1972)[6]. The 60-item GHQ was used, which is a self reporting questionnaire used extensively to screen for psychiatric morbidity in patients and community samples with a cut-off

score of 12. The subjects were also clinically examined by a psychiatrist and the diagnosis, if any, was made according to ICD 10 criteria.[7]

Results

Among all the patients of ocular pain, 196 (49%) had refractive errors, 84(21%) suffered from presbyopia, 36(9%) were having Glaucoma, 36(9%) had infection in their eyes and rest 48(12%) had no organic pathology.

On screening by the 60-item GHQ, it was observed that all patients with no organic pathology (n=48) had scored above cut-off of 12, while among those with an organic pathology (n=352), only 44(11%) had score of GHQ > 12

It was observed that out of the total 92 subjects with GHQ scores > 12, 44 had associated ocular illness while 48 had no ocular illness.

All the patients were further examined by psychiatrist and were diagnosed as per ICD 10 criteria. Among the patients with ocular illnesses a total of 44(12.5%) were suffering from diagnosable psychiatric disorders of which 24(6.8%) were suffering from depression and 20(5.7%) were suffering from generalized anxiety disorder.

All the patients with ocular pain and no ocular morbidity had a clinically diagnosable psychiatric illness. Among these 12(25%) were diagnosed as suffering from generalized anxiety disorder, 20(41.7%) from depression and 16(33.3%) from dissociative disorder.

Table 1: General Health Questionnaire (GHQ)

Organic pathology	GHQ >12	GHQ≤12	Total
Absent	48(12%)	nil	48(12%)
Present	44(11%)	308(77%)	352(88%)
Total	92(23%)	308(77%)	400

Discussion

Among patients suffering from ocular pain, the initial focus understandably remains on detection of the organic eye disorders, if any. However, this may digress the attention from the psychosomatic aspects of eye pain. Pain, in itself, produces depression, anxiety and fear and sometimes, pain might be a symptom of a psychiatric disorder as highlighted in the review by Blair et al.[8] Present study found that overall 23% subjects, that is nearly one in four, with ocular pain met the GHQ cut-off for psychiatric caseness. Similar observations were made in an earlier study by Brooks et al on psychological aspects of disorders of eye, as also by Fenton in his case reports on psychosomatic eye disorders. [9, 10]

Interestingly, all the subjects with no organic pathology in present study scored higher than the GHQ cut-off and were found to have a clinically diagnosable psychiatric disorder, that is depression, generalized anxiety disorder or dissociative disorder. This finding again reinforces the need for psychological assessment of patients with ocular pain.

Even among the subject with organic pathology, a significant percentage scored high on GHQ and were diagnosed as suffering from depression or generalized anxiety disorder. The presence of this co morbidity may interfere with the subject's acceptance and treatment. Similar observation was also made by Brook et al [9] in their assessment of 50 cases of patients suffering from eye disorders. It also needs to be emphasized that only a little attention has been paid to the

field at the interface of psychiatry and ophthalmology, psycho-ophthalmology, in spite of its clinical importance. [11]

To conclude, the study delineates the psychological correlates of ocular pain and the need to assess the psychological and psychiatric morbidity in subjects complaining of ocular pain. It also stresses the need for interdepartmental and multifactorial approach, as also recommended by Standing Committee on Postgraduate Medical and Dental Education (SCOPME),[12] for assessment and management of these patients.

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Case Report

Tumefactive multiple sclerosis presenting as mania: A case report

Shrigopal Goyal, Rajesh Sagar

Abstract

Multiple sclerosis (MS) is an inflammatory demyelinating and neurodegenerative disease. Psychiatric symptoms as initial presentation is quite uncommon in multiple sclerosis. Tumefactive type is rare among MS, and not much is known about psychiatric complications associated with this condition. We discuss the case of an adult male patient brought for manic symptoms of two weeks duration and recent onset pain in left upper and lower limbs. Patient developed instability of gait with bowel and bladder incontinence in later course and was diagnosed as case of tumefactive multiple sclerosis.

Key words: multiple sclerosis, mood disorder, mania

Introduction

Multiple sclerosis (MS) is the most common cause of progressive neurological disability in adults aged 20 to 40 years, affecting 1 in 1000 people in western countries.[1] It presents as an inflammatory demyelinating and neurodegenerative disease.[2] The demyelination and/or axonal damage may produce varied and nonspecific clinical features including optic neuritis, weakness, sensory abnormalities, cerebellar signs and psychiatric symptoms. Depression is the most commonly reported neuropsychiatric symptoms in MS, occurring in 37% to 54% of patients over the course of the disease. Mania, psychosis, anxiety, personality syndromes and eating disorders have also been described.[3]

Tumor-like demyelination in MS is rare and estimated at 1 to 2 per 1000 cases of MS which translates to about 3 cases per million per year in the general population.[4] The usual clinical presentation of tumefactive MS includes headache, cognitive abnormalities, mental confusion, aphasia, apraxia and seizures. However, it may present diagnostic difficulty that intracranial mass may mimic as malignant glioma or cerebral abscess.[4] Psychiatric symptoms in MS are commonly observed during disease evolution but they are unusual as first symptoms and were reported in only 1% cases of MS.[5]

Previous case reports have mentioned MS presenting as a psychiatric disorder initially. However, not much literature is available on psychiatric disorder in tumefactive MS. We report one of the rare forms of multiple sclerosis (tumefactive) where patient initially presented with psychiatric symptoms (mania).

Case Report

A 24 year old unmarried male, resident of Uttar Pradesh, India with no past and family history of psychiatric illness was brought by his father to the psychiatry OPD, AIIMS, New Delhi in November 2012. He presented with an abrupt onset of decreased need for sleep, over activity, increased talkativeness, disinhibited sexual behavior and increased energy. He also started using alcohol and tobacco and predominant mood was euphoric from previous 15 days. He also started complaining of pain in left upper and lower limb from last two days but his father also gave a

history of trauma to left lower limb a few days back. Patient was started on tablet Olanzapine 5 mg and simultaneously he was referred to neurology and orthopaedics OPD for complains of pain in upper and lower limb.

Subsequently he started complaining of weakness in left upper and lower limb, instability of gait with bowel and bladder incontinence. Initial neurological examination was unremarkable but subsequent examinations found decreased power in left upper and lower limb and left sided cerebellar signs to be present. The spinal tap revealed a clear CSF and its examination showed RBC: 240, WBC:10 -all lymphocytes, sugar :73 mg/dl and protein: 56 mg/dl. Visually evoked potential (VEP) showed bilateral normal P100 latency. Brain stem auditory evoked response (BAER) showed bilateral normal peak and inter peak latency. MRI brain revealed demyelinating disease with large tumefactive lesions in bilateral frontoparietal lobes showing open ring enhancement. Two small discrete lesions were seen in right branchium pontis and anterior medulla oblongata. Findings were indicative of likely multiple sclerosis.

On the basis of above clinical and neuroimaging findings, patient was diagnosed as case of clinical isolated syndrome of Tumefactive MS. He was treated with pulse methyl prednisolone and started on oral prednisolone. Patient improved significantly after 10 days of treatment but advised to continue follow up with neurology.

Discussion

MS may be associated with several psychiatric disorders, involving mainly mood, behavior, personality and cognition which create diagnostic dilemma, especially at the beginning of the disease.[6]

Depression is most common psychiatric disorder associated with MS but other psychiatric disorder like anxiety and psychosis are also common. In their study, Diaz Olavarrieta et al [3] revealed that neuropsychiatric symptoms were present in 95% of patients. Changes present were depressive symptoms (79%), agitation (40%), anxiety (37%), irritability (35%), apathy (20%), euphoria (13%), disinhibition (13%), hallucinations (10%), aberrant motor behavior (9%), and delusions (7%). Fazzito et al [7] reported five cases, of which two showed psychiatric manifestation as first symptom (depression and behavior change). The other three showed psychosis during disease evolution. Very few cases of MS presenting as pure psychiatric symptoms were reported from India. [8] Recent case report mentioned mood disorder as the presenting manifestation of demylination in adolescent boy. [9] Previous studies reported mainly lack of inhibition and euphoria as presenting complaint but few cases reported mania as presenting symptoms. This patient presented with symptoms fulfilling all the criteria for mania.

Tumefactive MS is rare diagnosis among multiple sclerosis and therefore, not much literature is available on psychiatric symptoms associated with tumefactive MS. The present case is one of the few cases of rare type of MS which presented with mania.

This case report adds to the existing literature and has important clinical implications. At times, neurological disorders may present as pure psychiatric disorder. It is important to entertain a possibility of organic etiology whenever there is some atypicality in onset and/or clinical presentation.

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Inspirations from history

Emil Kraepelin's contributions to modern psychiatry: Clinical empirical approach and psychiatric nosology

Raman Deep Pattanayak, Rajesh Sagar

In this issue, we retrace the landmark developments around the turn of 19th century which came about with the work of Emil Kraepelin and laid the foundation for modern psychiatry.
Kraepelin influenced psychiatric nosology, shifting the emphasis from grouping by symptoms to grouping by 'pattern of symptoms'. More importantly, he emphasized on systematic clinical observations and was influential in bringing scientific empirical research to psychiatry.

Emil Kraepelin: The life and academic career

Emil Kraepelin (1856-1926), a German Psychiatrist, can be considered as one of the pioneers of modern psychiatry. From a young age, he was introduced to biology by his elder brother with whom he was particularly close (and who later went on to become the director of Zoological Museum of Hamburg). Kraepelin entered medical studies at 18 years of age and studied experimental psychology under Wilhelm Wundt (regarded as 'father of experimental psychology') from where he developed a lifelong interest in the subject. Kraepelin received his M.D degree in 1878. [1,2]

In 1883, during the Easter holiday break, he wrote a *Compendium der Psychiatrie*, of around 400 pages, in which he argued that psychiatry was a branch of medical science and should be investigated by observation and experimentation. This compendium would later evolve into his famous textbook titled 'Clinical Psychiatry: A Textbook for Students and Physicians' meant for academic teaching and documentation of his work. By 30 years of age, Kraepelin became a professor of psychiatry first at the University of Dorpat (in today's Estonia), followed by University of Heidelberg and later Munich in 1903. At the first post, Kraepelin also served as the director of the 80-bed university hospital where he began the observation and recording in detail of patients' behaviors, symptoms, family histories, and courses. [1-3]
All throughout career, he fulfilled a wide array of responsibilities including clinical, research, teaching, administrative and organizational activities. In doing so, he extended support to many pupils and colleagues, including R Gaupp, Alois Alzheimer, Franz Nissl and E Kahn who later became famous for their accomplishments.[4] In later years, Kraepelin directed all his efforts towards setting up a preeminent Psychiatric Research Institute in Germany, which opened in 1917. He died in 1926 at the age of 70 years. One of his greatest legacy is the impetus he gave to the scientific psychiatric research.[5] The final edition of his Textbook of Psychiatry was published shortly after his death and was several times larger than its first edition in 1883. [2,3]

Pre-Kraepelinian era: 'Unitary psychosis'

Nosology has been a central concern in psychiatry, and is still an evolving process. In order to understand the role of Kraepelin, it is important to view his contributions in the historical context of the preceeding era.[6] The prevalent concept in 19th century was that of a 'unitary psychosis' (*Einheitspsychose*), that is there were no distinct disease entities in psychiatry.[5] All forms of mental illnesses were proposed to be surface variations of a single underlying process ('universal madness').[5,6] This concept was derived from the work of Belgian psychiatrist, Joseph Guislain (1797–1860), who proposed that mental illness can unfold along seven successive stages with progressive deterioration viz. mania, folie, stupidity, epilepsy, hallucinations, confusion and dementia, all on a continuum.[7] Most researchers in 19th century, such as Griesinger and Neumann, were proponents of unitary psychosis, as revealed in latter's writings below [8]:
There is only one type of mental disorder. We call it madness (Irresein). Insanity does not possess different forms but different stages; they are called insanity (*Wahnsinn*), confusion (*Verwirrheit*), and dementia (*Blödsinn*).

Setting the groundwork for Kraepelin

Only few researchers before Kraepelin disagreed with the above view, most notably Kahlbaum. He asserted that the unitarian position will stagnate the knowledge and signal an end to all diagnosis in the field of psychopathology. Kahlbaum borrowed the 'clinical method' from medicine in order to describe the 'symptom-complexes'. The syndromes such as dysthymia, cyclothymia, paranoia, catatonia, and hebephrenia were described by Kahlbaum and Hecker in 19th century. In doing so, they laid the foundation to be built upon further by Krapelin's work. [6,7]

Demarcation of dementia precox and manic depressive insanity

Kraepelin posited that mental illnesses are 'disease entities' and do have underlying physical etiologies which shall be eventually discovered with advancements. Till that time, he emphasized the importance of studying the onset, course and outcome as a means for delineation of the illnesses. [9,10]

The evolution of Kraepelin's nosological concepts can be seen in the successive editions of his textbook.[9-11]

The concept of dementia precox was first formulated in the 4th edition of his textbook (1893), where he defined it as an entity apart from the affective disorders, general paresis and other conditions. (The term "demence precoce" used earlier by Morel had a different connotation.) In the 5th edition of his textbook (1896), the study of clinical symptoms (i.e. both qualitative and quantitiative data derived from long term observations) was brought to the centrestage for the first time. Kraepelin described the subtype of 'dementia paranoia', that is paranoid schizophrenia and incorporated the previously described subtypes of hebephrenia and catatonia with this sub-type, under a broad heading of 'dementia precox' based on a progressively deteriorating course and poor outcome. He developed a diagnostic system by longitudinal rather than cross-sectional observation of patient groups. His formula for creating nosological entities has been to define disease through common etiology, course, outcome and pathology. [9-11]

In the 6th edition of his textbook (1899)[11], a simple schema for classification of mental illnesses was introduced which indicated two main groups of functional mental disorders: the dementia precox and the new rubric of manic depressive insanity, based on the clinically observed differences in the longitudinal course of symptoms.

Kraepelin's approach to clinical observations

Kraepelin indicated in his memoirs that he could not document the processes in great detail, but rather presented it as the current state of knowledge in successive editions of textbook. He notes about his clinical method as follows:[10,12]

I went through all the available index cards relating to the different pathological forms I had to refer to. The index cards contained a very condensed resume of all information on each case. Then, I excluded all those cases which seemed to be incomplete or questionable and began to group them under different aspects. The most similar cases were collected into larger or smaller groups and the clinical characteristics of these sub-types were defined more precisely. Thereby, the hereditary behaviour, proven external causes, the distribution of age, sex and profession were ascertained. Furthermore, genetic development, individual physical and mental symptoms, the course and outcome were taken into consideration. By examining the numbers, I gained criteria to judge whether the trial group arrangement was justified or should be altered (Kraepelin 1987, p 156).

Kraepelin felt that his clinical method would produce reliable diagnoses and would help in determining the prognosis of patients:[12]

What convinced me of the superiority of the clinical method of diagnosis (followed here) over the traditional one, was the certainty with which we could predict (in conjunction with our new concept of disease) the future course of events. Thanks to it the student can now find his way more easily in the difficult subject of psychiatry.

The original case material of Kraepelin or his collaborators was subjected to a meta-analysis (of 53 dementia praecox and 134 manic-depressive insanity),[13] and was coded in terms of Present State Examination syndromes for analysis. Both major diagnosis defined homogeneous groups of disorders which could be clearly distinguished from each another. A CATEGO re-classification of the cases revealed an 80.2% concordance rate between Kraepelin's diagnoses and ICD.

Kraepelin indicated in later years of his life that his opinions have kept on changing over time, especially with new observations being recorded. In 1920, he reflects about the dichotomy :[14]

"No experienced diagnostician would deny that cases where it seems impossible to arrive to a clear decision, despite extremely careful observation, are unpleasantly frequent." [Kraepelin's 1920 Essay 'The manifestations of insanity']

The ideal and most accurate approach to psychiatric nosology still remains debatable, but the concepts of 'manic depressive insanity' and 'dementia precox' have proven to be clinically useful entities and continue to find relevance in classificatory systems till date.

Kraepelin: Lesser known contributions to psychiatry

Kraepelin's work spanned several other areas of psychiatry. [2,15] He made visits to South-east Asia in an effort to gather clinical observational data from a geographically and culturally distinct society– described as 'comparative psychiatry' by him—which became the starting point of transcultural psychiatry. He also wrote a book 'On Speech Disorders in Dreams' in 1905 based on an analysis of his own 286 dreams.

He set up and nurtured several laboratories for the 'auxiliary sciences' under psychiatry, which included a Laboratory for Experimental Psychology (Kraepelin's own area), a Laboratory for Neuropathology (Alois Alzheimer), a Laboratory for Chemistry, Serological Laboratory, Genealogical Demographic Laboratory

and a large archive for case histories.[4] Kraepelin was one of the pioneers of experimental–psychological research and published the results from his laboratory studies in the 8-volume 'Psychological Studies' (1896–1914). He was one of pioneers of psychopharmacology and used experimental methods to study the effects of alcohol, nicotine and drugs on human behavior. His studies spanned the diverse areas of neuropathology, psychophysiology, psychopharmacology, transcultural psychiatry and epidemiology.

With new advancements, the psychiatry will continue its progress and Krapelinian dichotomy may or may not stand the test of time, but he will continue to be remembered for his legacy of (a) bringing clinical empirical methods in psychiatric research, (b) introduction of concept of mental illness as disease entities, (c) emphasis on longitudinal course of illness and (d) providing the framework for classificatory systems of 20th century, which continue till date.

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15. Géraud M. Emil Kraepelin: A pioneer of modern psychiatry: On the occasion of the hundred and fiftieth anniversary of his birth. Encephale. 2007;33:561–7.

Source of funding: Nil
Conflict of Interest: None declared

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List of interesting articles

What is happening in research elsewhere?

- **Dietary patterns and suicide in Japanese adults: the Japan Public Health Center-based Prospective Study.** Nanri A, Mizoue T, Poudel-Tandukar K, et al.
  British J Psychiatry 2013; 203:422-7
  The study aimed to prospectively investigate the association between dietary patterns and death from suicide, among 40 752 men and 48 285 women participants. Dietary patterns were derived from principal component analysis of the consumption of 134 food and beverage items ascertained by a food frequency questionnaire (1995-1998) . Hazard ratios of suicide from the fourth year of follow-up to December 2005 were calculated. Among both genders, a 'prudent' dietary pattern characterised by a high intake of vegetables, fruits, potatoes, soy products, mushrooms, seaweed and fish was associated with a decreased risk of suicide. The multivariable-adjusted hazard ratio of suicide for the highest *v.* lowest quartiles of the dietary pattern score was 0.46 (95% CI 0.28-0.75).
- **The past and future of delusions research: from the inexplicable to the treatable.** Garety PA, Freeman D
  British J Psychiatry 2013;203:327-33
  A systematic literature search was conducted of reasoning and affective processes related to delusions. Over 200 studies were identified. The presence of 'jumping to conclusions' in individuals with delusions has been substantiated, the theory of mind account has not stood up to subsequent testing, and there is a promising new focus on the ways that affective processes contribute to delusional experience. Theoretical work rendering delusions understandable can be translated into treatment; future clinical trials should focus on individual psychotic experiences as outcomes.
- **Comparison of short- and long-term dynamic group psychotherapy: randomised clinical trial.** Lorentzen S, Ruud T, Fjeldstad A, et al.
  British J Psychiatry 2013; 203: 280-7
  In absence of any prior randomized clinical trials, the present study aimed to compare differences in outcome during and after short- and long-term group psychotherapy (20 or 80 weekly, 90 min sessions). (n= 167 out-patients with mood, anxiety and personality disorders). Outcome measures were: SCL 90-R, Inventory of Interpersonal Problems - Circumplex) and GAF split version. Change over the 3-year study period was assessed using linear mixed models. There was a higher number of premature terminations in the long-term (33.3%) compared with the short-term group (8.6%). Short- and long-term therapy seem equally effective for typical out-patients seeking group psychotherapy, except for symptomatic distress.
- **Anxiety and mortality risk in community-dwelling elderly people.** Carrière I, Ryan J, Norton J, et al.
  British J Psychiatry 2013; 203: 303-9.
  The study aimed to evaluate the 10-year mortality risk associated with anxiety in community-dwelling elderly people using data from 718 men and 1046 women aged 65 years and over. In women, mortality risk was increased for anxiety disorder and GAD in multivariate Cox models (hazard ratio (HR) = 1.53, 95% CI 1.02-2.27 and HR = 2.04, 95% CI 1.08-3.86

respectively). No significant associations were found in men. The study suggests a gender-specific association of anxiety and mortality.

- **The explanatory models and coping strategies for alcohol use disorders: An exploratory qualitative study from India.** Nadkarni A, Dabholkar H, McCambridge J, et al.
  Asian J Psychiatry 2013; 6: 521-7
  Semi structured interviews were conducted with 29 men with AUD and 10 significant others (SO) in two sites in India. Alcohol consumption and AUDs are seen to be mainly associated with psychosocial stress, with other factors being peer influences, availability of disposable income and drinking for pleasure. Various coping strategies were deployed by men with AUD and their significant others, for example avoidance, substitution, distraction, religious activities, support from AA/friends/family, restricting means to buy alcohol and anger management. There are considerable similarities, as well as some key differences, observed between the EMs for AUD in India and those reported from other cultures.

- **The efficacy of atomoxetine as adjunctive treatment for co-morbid substance use disorders and externalizing symptoms.** *Benegal V, Viswanath B, Narayanaswamy JC, et al*
  Asian J Psychiatry 2013; 6: 544-7

  The study examined the effect of atomoxetine supplementation in treated-as-usual patients with alcohol, tobacco and other drug dependence and co-morbid externalizing symptoms (ES).Subjects were assessed for: (a) high ES counts, (b) maximum prior period of abstinence, (c) quality of life during that period, and (d) shortest time from prior relapse to restarting treatment. Subjects were prescribed atomoxetine and followed up to their first relapse.Out of 262 subjects screened, 18 subjects who fulfilled eligibility criteria were recruited. All subjects were male, with early onset of substance dependence to at least two substances. Atomoxetine treatment led to significant treatment benefits in all measures. Atomoxetine has a potential role, as an adjuvant to the standard treatment.

- **Bad, burdened or ill? Characterizing the spouses of women with schizophrenia.** Seeman MV. *Int J Soc Psychiatry 2013; 59: 805-810*
  The husbands of women with schizophrenia have been variously characterized in the psychiatric literature as abusive, burdened and ill. The aim of this paper is to summarize what has been written about these three perspectives. Literature search was conducted on PubMed and Google Scholar. The results show considerable variation, some of it cultural, with partial evidence for all three characterizations. There is a need for support and psychoeducation programmes that are specifically designated for spouses and that address their special concerns.

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Chapter in a book

- Phillips SJ, Whisnant JP. Hypertension and stroke. In: Laragh JH, Brenner BM, editors. Hypertension: pathophysiology, diagnosis, and management. 2nd ed. New York: Raven Press; 1995. pp 465-78.

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Book

- Ringsven MK, Bond D. Gerontology and leadership skills for nurses. 2nd ed. Albany (NY): Delmar Publishers; 1996.
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