

A descriptive study of disability in patients presenting with medically unexplained physical symptoms in a medical OPD setting

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ABSTRACT

Introduction: Medically unexplained physical symptoms (MUPS) are quite common in the primary care setting. These unexplained symptoms lead to physical, psychological, and functional disability increasing patient and caregiver distress. **Methodology:** Cross-sectional study was conducted on a sample of 100 patients attending medicine outpatient department. The data on sociodemographic profile and detailed clinical history were collected. Disability was assessed using the World Health Organization Disability Assessment Schedule 2.0 instrument. Association between qualitative measures was measured by Chi-square test or Fisher's exact test and for qualitative measure *t*-test or Wilcoxon test was used. **Results:** Most of the patients were young, from urban settings and belonging to lower socioeconomic strata. A mean of 6.54 symptoms per patient was presented with headache as the most common symptom. Average gross disability score in each domain was 1.6 with a major impact on the social and lifestyle-related domain. **Conclusion:** Patients with MUPS have significant disability especially in the domain of mobility and lifestyle-related activities. The disability is more in females, population dwelling in urban settlements, and population belonging to lower socioeconomic status.

Keywords: Medically unexplained symptoms, medically unexplained physical symptoms, MUS, WHO-DAS

Introduction

Patients with medically unexplained physical symptoms (MUPS) have little or no scientific explanation for their physical symptoms. Such patients are common in all levels of healthcare setting including primary care clinics. It is an important yet neglected healthcare problem. The reported prevalence of MUPS cases is up to 70% in different outpatient department (OPD) settings and between 20% and 30% in the primary care setting.^[1,2]

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The primary care and family physicians are the first contacts for the cases of MUPS. Most of these patients are dissatisfied and frustrated with their doctors and keep on shuttling between various specialties.^[3] Patients with MUPS pose a diagnostic challenge to primary care physicians because of the nonspecific nature of the symptoms and difficulty in attributing the symptoms to either purely physical or psychological terms. Besides, these symptoms have a low predictive value that further adds to the diagnostic challenges, leading to a delay in the diagnosis and initiation of appropriate care.^[4] Physicians have been criticized for inadequate recognition and management of the problems in cases of MUPS.^[5]

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These patients suffer from a spectrum of symptoms such as generalized pain, discomfort, fatigue, functional, neurological, and bowel symptoms, without underlying organic disease.^[6,7] Sometimes these chronic symptoms cluster to give rise to secondary somatic diseases such as irritable bowel disease, chronic fatigue, and fibromyalgia.

The disability in patients with MUPS depends on the type, frequency, and intensity of the symptoms. The varying degree of severity and disability warrants treatment at different levels of the healthcare system. Studies depict that a considerable number of these patients, with chronic and severe symptoms with a considerable disability, cannot be effectively managed at the primary care level.^[6,8,9] Knowledge regarding an evaluation of the disability in the cases of MUPS is important as they form the basis for planning the line of management including the place of care.

Studies investigating MUPS in the medical OPD setting are scarce. We planned this study to evaluate the disability and its sociodemographic correlates among the patients with MUPS presenting to medicine OPD.

Methodology

This cross-sectional observational study was carried out at a tertiary care hospital of north India. One hundred patients with MUPS, presenting to medicine OPD and fulfilling the inclusion and exclusion criteria, were recruited in the study. The study was approved by the institutional ethics committee and written consent was taken from all the cases before enrolment.

For this study, MUPS was defined as any current principal complaint of the patient for which no medical diagnosis could be reached by detailed clinical examination and appropriate investigations, with symptoms lasting for at least 3 months' duration.^[10] Adult patients with MUPS presenting to medicine OPD and giving consent to participate in the study were included in the study. Patients with diagnosed psychiatric comorbidities were excluded from the study.

Detailed clinical history was taken from all recruited patients regarding chief complaints and other associated complaints. All OPD cards and documents of the previous visits to the same hospital and different hospitals were reviewed. Thorough clinical examination was done, and appropriate investigations were done before making the diagnosis. Referrals from other subspecialties were taken as and when required.

Patient data including sociodemographic correlates such as age, gender, marital status, educational level, employment status, and occupation were recorded in prevalidated proforma. Assessment of disability was done by the World Health Organization Disability Assessment Schedule 2.0 (WHO-DAS 2.0).

WHO-DAS 2.0 is a generic and practical instrument which evaluates health and disability levels in the general population

and in people with a varied range of mental and physical disorders.^[11] We used the full version of the instrument that has 36 questions related to the functional difficulties experienced by the respondent in the six domains of life during the last month. It was administered by the interviewer and scoring was done by a simple scoring method. The six domains captured by the instrument includes Cognition (understanding and communicating), Self-care (attending to one's hygiene, dressing, eating, and staying alone), Mobility (moving and getting around), Getting along (interacting with other people), Life activities (work, domestic responsibilities, leisure, and school), and Participation (joining in community activities and participating in society).

Each qualitative variable has been expressed as absolute and relative frequencies, whereas the continuous variable has been organized as mean along with standard deviation and/or median (range). To find the association between qualitative variables, Chi-square test or Fisher's exact test was used. To compare quantitative measures between two groups, *t*-test or Wilcoxon rank-sum test was used according to the distribution of data. Other appropriate statistical methods were used according to the data obtained. A *P* value less than 0.05 was considered as statistically significant.

Results

One hundred patients with MUPS were recruited in the study. The general characteristics of the patients are summarized in Table 1.

Most of the patients had symptoms involving multiple systems. The detail of the systems involving the symptoms is mentioned in Table 2.

Headache was the most common symptom reported. One hundred patients presented with 654 symptoms with a mean of 6.54 symptoms per patient.

Disability assessment by WHO-DAS 2.0

Among the 100 patients studied, the mean gross domain score observed for all six domains was 61.198 with the minimum and maximum scores being 43 and 75, respectively. The average gross domain score was 1.698 with minimum and maximum scores being 1.19 and 2.08, respectively. The details of scores in each domain are summarized in Table 3.

The relationship between various demographic variables and gross domain scores as evaluated by WHO-DAS 2.0 is mentioned in Table 4. The scores suggest that the disability was more in females, married, urban dwellers, and lower socioeconomic groups.

Discussion

MUPS is a common clinical condition which leads to significant disability and compromised quality of life. The objective of this

Table 1: General characteristics of the patients with MUPS (n=100)

Age (years)	
Mean age (years)	35.1 (\pm 3.4)
0-20	7
20-40	63
More than 40	30
Gender	
Male	46
Female	54
Marital status	
Married	76
Single	23
Other	1
Locality	
Urban	59
Rural	41
Family type	
Nuclear	78
Joint	22
Socioeconomic class (Modified Kuppuswamy 2018)	
Upper	00
Upper middle	08
Lower middle	32
Upper lower	49
Lower	05
Personal habits	
Smoking	11
Alcohol	10
Diet habits	
Vegetarian	30
Mixed	70

MUPS: medically unexplained physical symptoms

Table 2: Frequency of the patients involving different organ systems

Organ system involved	Frequency
Central nervous system	75
Headache, giddiness, burning sensation, tingling sensation, altered sensory sensations	
Musculoskeletal system	67
Back pain, diffuse body aches	
Gastrointestinal system	65
Bloating sensation, abdominal pain, abnormal bowel habit	
Cardiovascular system	46
Palpitation, chest pain	
Respiratory system	12
Shortness of breath	
Urogenital system	8
Leucorrhea, itching, dysmenorrhea	
General symptoms	
Loss of appetite	23
Sleep disturbance	57
Others	12
Febrile sensation, general itching, dryness of skin and eye	

cross-sectional study was to evaluate the clinical characteristics, sociodemographic correlates, and disability in patients with MUPS attending medicine OPD. Studies investigating MUPS and associated disabilities in a medicine OPD setup are scarce; one

study suggests some association between functional ability and MUPS.^[12] The pieces of evidence from Indian studies are based on a subset of patients with MUPS (i.e. somatisation disorder) and patients presenting at psychiatric OPD.

Patients with MUPS are comparatively young and belong to productive age groups. In our study, the prevalence of female patients was slightly more than males. The female preponderance was between third and fifth decades of life. A majority of the patients belonged to lower socioeconomic status and were from urban settlements. Similar sociodemographic trends were observed in studies from the west. Patients were young with lower socioeconomic status and education level, but belonged to rural areas.^[13] The location of the study was a tertiary care hospital in an urban setup which led to a greater proportion of patients from urban areas. A similar hospital-based study from Northern India, evaluating the sociodemographic profile of patients with MUPS, reported that a majority of patients with MUPS (three-fourth) were women from rural areas.^[14]

Multisystem involvement was common in patients with MUPS. The mean number of symptoms present per patient was 6.5. The observed mean number of symptoms was close but slightly less than the findings of other studies done in Chandigarh (6.1 symptoms per patients) and Kerala (5.7 symptoms per patient).^[15] Headache was the most common symptom presented. This was in contrast to a nationwide survey in the Netherlands, where pain and fatigue were the most commonly reported symptoms.^[16] In our study, the majority of symptoms were reported from central nervous system (75%). This was followed by symptoms corresponding to the musculoskeletal system, gastrointestinal system, and cardiovascular system, and least symptoms reported in the dermatological and dental domain.

Disability is crucial in determining the healthcare burden. Assessment of disability in our study was done with WHO-DAS 2.0, a comprehensive tool to evaluate functional status in six domains. In our study, all domains were affected by MUPS with a mean score of 61.1. The domain of mobility followed by lifestyle-related activities associated with managing the household and occupational responsibilities were the most affected. A study comparing disability in patient groups with medically explained and unexplained physical symptoms reported greater disability in patients with MUPS. In contrast to our findings, they reported significant disability in all functional domains except mobility.^[14] The disability was significantly higher in females and elderly population dwelling in urban settlements belonging to lower socioeconomic status.

This study has the limitation inherent to any hospital-based study. The sample population may not be the true representative of the population universe. Besides, comparable groups should be taken to study variables related to symptom severity, quality of life, and various interventions in the management of patients with MUPS. The study makes way for future studies to estimate the prevalence, that is, the burden of MUPS in Indian setup.

Table 3: Details of the scores as evaluated by WHO-DAS 2.0 in patients with MUPS

Domain	Normal score (raw domain)	Patient's score (raw domain), mean	Normal score (average domain)	Patient's score (average domain), mean
Domain 1: Cognition - understanding and communicating	6-30	7.740	1	1.284
Domain 2: Mobility - moving and getting around	5-25	10.386	1	2.059
Domain 3: Self-care - attending to one's hygiene, dressing, eating, and staying alone	4-20	4.227	1	1.065
Domain 4: Getting along - interacting with other people	5-25	6.560	1	1.331
Domain 5a: Life activities - domestic responsibilities	4-20	9.227	1	2.300
Domain 5b: Life activities - work and school	4-20	9.396	1	2.336
Domain 6: Participation - joining in community activities, participating in society	8-40	13.632	1	1.450

WHO-DAS 2.0: World Health Organization Disability Assessment Schedule 2.0; MUPS: medically unexplained physical symptoms

Table 4: Demographic variables and gross domain scores (WHO-DAS 2.0) in patients with MUPS

Variables	Gross domain scores (WHO-DAS 2.0)	P
Number of systems involved		0.076
Single	66.8	
Multiple	60.9	
Gender		<0.001
Male	57.9	
Female	63.9	
Marital status		<0.001
Married	62.844(±6.497)	
Single	55.304(±6.608)	
Locality		0.037
Urban	62.2	
Rural	58.9	
Family type		0.5
Nuclear	61.4	
Joint	60.3	
Socioeconomic class (Modified Kuppaswamy 2018)		Overall 0.017
Upper	00	
Upper middle	61.25	
Lower middle	58.69	
Upper lower	62.94	
Lower	66.6	

WHO-DAS 2.0: World Health Organization Disability Assessment Schedule 2.0; MUPS: medically unexplained physical symptoms

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Conflicts of interest

There are no conflicts of interest.

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