



Estimated prevalence of medically unexplained physical symptoms in the medicine outpatient department of a tertiary care hospital in India



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ABSTRACT

Purpose: There is a paucity of scientific evidence from the Indian subcontinent regarding the magnitude and burden of Medically Unexplained Physical Symptoms (MUPS). This study aims to fill the evidence gap by assessing the prevalence and pattern of MUPS amongst patients attending the Medicine Out-Patient Department (OPD).

Methodology: The study assessed all consecutive new patients, presenting to the Medicine OPD of a tertiary care center in India over a period of nine months. All consenting patients, between 18 and 60 years of age, irrespective of their reason for consultation were included for the study. The diagnosis in subjects was established by a combination of clinical history, physical examination, and relevant investigations. A diagnosis of MUPS was made in cases with no demonstrable organic cause, and after agreement in the opinion of two independent physicians. All recruited patients with MUPS were subsequently evaluated on a pre-validated symptom checklist of 23 symptoms.

Results: Out of 976 subjects included, a diagnosis of MUPS was established in 24.6% [95% CI = 21.9–27.3] of the sample. An additional 20.6% met the criteria of persistent MUPS (symptoms > 2 months), and 19.7% of subjects had symptom duration of more than three months, meeting the stricter definition for 'persistent MUPS'. Prevalence was significantly higher in females ($p = 0.02$), and patients of MUPS were significantly younger ($p = 0.004$) than patients with other diagnoses. MUPS patients on average complained of 13 ± 5 symptoms and sought multiple medical consultations [Median (IQR) = 3 (2–6)] in the last one year. Non-specific, general symptoms (94.6%) and various types of pain (93.7%) were the most frequent complaints. Pain symptoms, genitourinary symptoms, palpitation, and nausea were more frequent in females as compared to males.

Discussion: Medically unexplained symptoms are as common in India as in the west and therefore pose a significant burden on the healthcare delivery systems. There is a need to sensitize the medical fraternity and policymakers for this condition to develop effective services.

1. Introduction

Medically unexplained physical symptoms (MUPS) refer to persistent bodily complaints not explained by any known organic etiology, even after adequate clinical examination and investigations [1]. These unexplainable symptoms, however, cause significant distress and affect the physical functioning, mental health, and quality of life of the sufferer [2,3].

Studies, mostly from the developed world, depict a significant

burden of MUPS on the medical system and report that up to 40% of patients presenting to the general Out-Patient Departments (OPDs) have symptoms that are not explainable medically [3]. These patients generally feel misunderstood, frustrated, and dissatisfied with their diagnosis and keep consulting different sub-specialties, increasing the burden on health care delivery systems [4–6]. Patients with such medically unexplainable symptoms are also seen in India and other Asian countries, highlighting the universal nature of the phenomenon [7–9], although data regarding their prevalence remains scarce. A

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multi-country multicultural study by the World Health Organization (WHO) in 1995, conceptualized unexplained somatic symptoms as a culture-specific “idiom of distress” and reported similar occurrence and burden of MUPS across nations and cultures [10]. Several other studies from the Indian subcontinent have also recently highlighted the burden of MUPS on the health system [9] through referral pattern analysis [11], symptom profiling, and by assessing disability in these patients [12].

In research, MUPS has been often studied as a part of the syndromes of fibromyalgia, irritable bowel syndrome, chronic fatigue syndrome, chronic low back pain, and across multiple settings [13]. Similarities have also been drawn with the somatoform group of disorders of psychiatry and with the PNES (Psychogenic Non-epileptic Seizures) patients presenting to Neurology. However, while somatoform disorders represent the physical manifestation of underlying psychological stress [14], and PNES denote one specific syndrome, the presentation of MUPS in medicine is much more varied and consequently, its conceptualization broader [14]. Indeed a 1997 article by Robins and Kirmayer, looking into functional somatic distress, identified as many as five syndrome clustering in sufferers, including chronic fatigue syndrome, fibromyalgia, irritable bowel disorder, depression and anxiety [15].

Inconsistency in operationally defining the construct of MUPS have made comparison across studies difficult [16]. Many studies have considered an arbitrary duration of 2 to 3 months of symptoms presence as a marker of diagnostic stability, resulting in the research term of ‘persistent MUPS’ [17,18]. Such a definition of persistent MUPS, although essential for construct homogeneity, may favor the more chronic or severe cases. In the context of India, the few studies on MUPS focuses primarily on symptom severity, life quality, cost of treatment and disability of patients already diagnosed as having MUPS [19,20]. While such research is essential for understanding the condition, the prevalence of the condition is currently unknown. More importantly, the proportion of patients presenting to the hospital (hospital prevalence) with MUPS, a core indicator necessary for planning hospital services, is currently lacking for the country. To the best of our knowledge, no research from the Indian subcontinent has looked systematically into the hospital prevalence of MUPS. This study was therefore undertaken to overcome the methodological limitations found in pre-existing literature as well as to generate the information necessary for clinical service planning and future research in MUPS. The primary aim of this study was to estimate the prevalence of MUPS amongst patients attending the Medicine Out-patient department (OPD) by using a uniform definition for the condition and by using a structured protocol for assessment. Subjective bias in ascribing medical inexplicability was minimized by evaluating each patient separately by two experienced physicians, and by following up patients until a diagnosis or a lack thereof was achieved. The secondary objective of the study was to explore the pattern of symptoms reported by patients of MUPS to understand the service needs of this group of patients.

2. Methodology

This cross-sectional, observational study was conducted in the Medicine OPD of All India Institute of Medical Sciences (AIIMS), New Delhi. AIIMS, New Delhi represents the apex referral center and teaching hospital of the country. Despite being a tertiary care center, patients with any physical ailment can walk in or take online appointment for a clinical consult in the Medicine OPD at all days of the week, without any prior referral. Therefore, patients visiting the Medicine OPD represent a highly heterogeneous group, varying in both etiology and severity of illness.

In order to estimate the prevalence of cases with MUPS, a consecutive sampling frame was deemed necessary. For logistic reasons, two fixed rooms in the Medicine Out-patient department (OPD) were selected on arbitrary days of every week for sample selection. As all

new patients presenting to the medicine OPD for consultation are randomly distributed by a computerized patient management system amongst all the doctors present for the day, we expected our subjects to be representative of the overall patient population presenting to the hospital. All new patients, between 18 and 60 years of age, presenting to the designated rooms of Medicine OPD, on the designated days, were included for the study, after obtaining informed consent. Thorough history talking, clinical examination and necessary hematological, biochemical, and radiological investigations were conducted before arriving at the diagnosis by the medicine internist (‘senior resident’ in the Indian system) managing the case. Each case was then presented to a faculty of medicine for re-evaluation of the diagnosis. In cases where the faculty wanted a second opinion, the internist re-presented the case to a second medicine consultant. The final diagnosis was arrived as a consensus after discussion between all three of the clinicians. One session of group discussion occurred between all the medicine and the psychiatry faculty and the internists involved in the project to establish uniform case definitions and investigation protocols. Each case was therefore assessed by two independent physicians, at least one of them being a faculty in Medicine with more than a decade of clinical experience. Referrals from other specialties of the hospital including psychiatry were sought, as and when required. Included patients were followed up through multiple visits (ranging from 1 to 4) until a diagnosis was established. Patients were followed up only for confirmation of diagnosis, and no further information was collected from the patient, thereby making the study methodology cross-sectional. Cases where clinicians reported doubt regarding symptoms being not fully explainable by illness, were not classified as having MUPS. Cases of MUPS were diagnosed according to the operative definition. 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 [21]. Prevalence of MUPS was estimated as cases of MUPS per 100 patients presenting for the first time in the pre-decided specified rooms of Medicine OPD.

All patients diagnosed as MUPS were evaluated further on a symptom checklist of 23 symptoms derived from NIMH (National Institute of Mental Health) Diagnostic Interview Schedule, following recruitment [15]. Descriptive statistics for quantitative variables were calculated as mean, standard deviation, median, and quartiles. Wilson's procedure for confidence interval(CI) calculation with continuity correction was used to calculate 95%CI [22]. To compare between groups, *t*-test/Mann-Whitney *U* tests were used. To assess the association between two qualitative variables, chi-square/Fisher's exact test was used. The study was approved by the institutional ethics committee and informed consent was taken from all participants.

3. Results

A total of 976 new consecutive patients presented to the designated rooms of Medicine OPDs during the study period from January 2018 to October 2018. The clinical diagnoses made in these 976 patients were grouped under organ systems affected and are summarized in Table 1. For patients with multiple co-morbid disorders (e.g., hypertension and diabetes) or with known pre-existing comorbidities, the current diagnosis for which the patient sought consultation was used for categorization under organ systems. Common diagnoses made of each system are provided in Table 1, to provide an overview of the distribution of cases presenting to the medicine outpatient department at our center.

Out of 976 total cases, 240 patients were diagnosed as having MUPS, as follow up assessments and investigations did not establish any other medical diagnosis in them. Using Wilson's procedure [22], the hospital prevalence of MUPS was calculated as 24.6% [95% CI = 21.9–27.3]; i.e., 24.6 patients with MUPS per hundred new patients presenting to the medicine OPD. Additionally, the prevalence was found to be 27.9% in females [95% CI = 25.01–30.7] and 21.5% in males [95% CI = 18.9–24.1]. A chi-square test showed the prevalence

Table 1
Summary of the diagnosis of the patients according to organ systems, (n = 976)^a.

Organ system	n	%	Common provisional diagnoses
MUPS	240	24.59	
Gastro-intestinal disorders	106	10.86	Acid peptic diseases, Hepatitis
Respiratory disorders	80	8.20	COPD, Asthma, RTI
Infectious diseases	73	7.48	Viral fever, Tuberculosis
Cardiovascular disorders	78	7.99	Hypertension, Coronary artery diseases, Rheumatic heart diseases
Nervous system disorders	72	7.38	Headache other than migraine, Migraine, Seizure disorder
Endocrinology and Metabolic disorders	71	7.27	Diabetes Mellitus, Hypothyroidism
General symptoms	57	5.84	Acute febrile illness, Allergic rhinitis
Musculoskeletal system disorders	38	3.89	Non-inflammatory backache, Spondylolysis
Genitourinary disorders	29	2.97	UTI, Renal calculi, PID.
Multiple comorbidity ^b	28	2.87	Diagnosed during the current workup. e.g., Diabetes + Hypertension + Dyslipidemia
Psychiatric disorders	26	2.66	Anxiety disorder, Depression
Autoimmune disorders	25	2.56	Rheumatoid Arthritis, SLE
Hematological disorders	19	1.95	Anaemia, Leukaemia and Lymphoma
Surgical problems	17	1.74	Varicose vein, Fissure, Breast lump
Ear Nose Throat disorders	9	0.92	Allergic rhinitis, Pharyngitis
Dermatological disorders	8	0.82	Atopic dermatitis, Tinea.
Renal disorders	3	0.31	Chronic kidney disorder, Acute kidney injury

COPD: Chronic obstructive pulmonary disorder, RTI: Respiratory tract infection, UTI: Urinary tract infection, PID: Pelvic inflammatory disease, SLE: Systemic lupus erythematosus.

^a The table provides overview of the diagnoses made while the patient was being evaluated for presenting symptoms. Patients' multiple pre-existing morbidities have not been recorded in this table.

^b Multi-morbidity diagnosed as a part of the workup have been included in this category.

to be significantly different in males and females (p value = 0.02). Additionally, 201 (20.6%) of our subjects had MUPS symptoms lasting for more than two months, while 192 (19.7%) subjects suffered from unexplainable symptoms for a duration greater than three months, meeting various research criteria for 'persistent MUPS'.

In the overall sample, 51.5% of subjects were males, as was the case in patients with non-MUPS diagnosis ($M = 53.7\%$). In contrast, patients with MUPS were significantly ($p = 0.02$) more females ($M = 45.0\%$). Further, the mean age of MUPS patients was significantly lower at 34.9 ± 10.3 years [95% CI = 33.6–36.2] in comparison to the non-MUPS group (Table 2).

A total of 3105 symptoms were reported by the 240 patients of MUPS. Patients reported symptoms ranging from 1 to 24 per patient with an average of $13 (\pm 5)$ symptoms. The symptoms could be as recent as of past one month to as prolonged as for the past 30 years. The median (IQR) duration of MUPS symptoms was for 15 [5–36] months. Most subjects with MUPS had sought consultation with multiple physicians in the past. The median (IQR) number of consultations sought from doctors in the last year was 3 [2–6]. However, physician visit in the past one year was highly variable and ranged from a single visit to as many as 20 visits to physicians in the past year.

General (neuro-vegetative) symptoms like weakness, fatigue, weight loss etc., were the commonest complaint (94.6%), followed by various types of pain (93.7%). The five commonest symptoms reported by patients diagnosed as MUPS were weakness (88.7%), fatigue (87.1%), headache (74.2%), backache (68.7%) and gas/bloating sensation (68.7%). The summary of symptoms reported by these patients with MUPS, along with their gender variation is presented in Table 3.

Table 2
Gender and age comparison in patients with MUPS and other illnesses.

Variables	MUPS (n = 240)	Others (n = 736)	Total (n = 976)	p value
Gender: n(%)				
Male	108(45.0)	395(53.7)	503 (51.4)	0.02 ¹
Female	132(55.0)	341 (46.3)	473 (48.5)	
Age in years: mean (SD)	34.9(10.3)	38.2(12.9)	37.4(12.4)	0.0004 ²

¹ Chi-square statistic (MUPS vs Others) = 5.1064, significant.

² t-Test (MUPS vs Others) = 3.5691, significant.

Further analysis showed that the age of patients positively correlated with the total duration of the symptoms ($r = 0.16$, $p = 0.01$) but not with the total number of symptoms ($p = 0.9$) or with the number of times the patient visited a doctor ($p = 0.14$). Patients of MUPS with unexplained cardiorespiratory complaints were significantly younger (34.2 ± 10.2 years) than those without cardiorespiratory symptoms (37.9 ± 10.3 years, $t = 2.38$, $p = 0.03$). The total duration of symptoms showed a significant correlation with the number of physician visits ($r = 0.27$, $p < 0.001$). Additionally, the duration of symptoms was significantly ($p = 0.02$) shorter in patients suffering from genitourinary complaints (median = 12 months, IQR = 3–36), as compared to those without genitourinary complaints (median = 16 months, IQR = 6–36).

The nature of the unexplained symptoms also varied between the two sexes. A significantly higher proportion of females (96.9%) complained of unexplained pain symptoms ($p = 0.02$) as compared to men presenting with MUPS (89.8%). Females also presented with more genitourinary symptoms, nausea, palpitation, and dizziness as compared to men. No sex difference was noted amongst the commonest general symptoms of MUPS presentation (Table 2).

4. Discussion

MUPS is an important yet neglected cause for medical consultations in many parts of the developing world [9,23] including India. MUPS can result in significant disability and poor quality of life for the patient while causing a considerable burden on health care delivery systems [11,12]. Yet, no comprehensive strategy for its management currently exists in the country. This paper, therefore, aimed to assess the hospital prevalence of MUPS and the symptom patterns in these patients, to help plan services and manpower, and develop expertise in the field. Similar exercises carried out in the west and have shown a significant benefit to health systems in terms of cost and patient satisfaction [24,25]. In India, although psycho-somatic clinic exists at a few places [26] including at our center, stigma and patient perception of MUPS being medical illness makes them highly averse to seek treatment from a psychiatry specialist [26,27]. In busy out-patient settings, these patients often remain neglected, not only because of the lack of manpower but also because of the dearth of expertise in clinicians in diagnosing, managing and communicating MUPS specific issues to the sufferers

Table 3
Summary of symptoms amongst cases of MUPS, $n = 240$.

Symptoms	Total, $n = 240$ N (%)	Female, $n = 132$ N (%)	Male, $n = 108$ N (%)	p value
General (neuro-vegetative)	227 (94.6%)	126(95.5)	101(93.5)	0.5098
Weakness	213 (88.7%)	120(90.9)	93(86.1)	0.2419
Fatigue	209 (87.1%)	119(90.2)	90(83.3)	0.1172
Disturbance in sleep	150 (62.5%)	86(65.2)	64(59.3)	0.3482
Lack of concentration	128 (53.3%)	67(50.8)	61(56.5)	0.3766
Loss of appetite	115 (47.9%)	67(50.8)	48(44.4)	0.3301
Change in weight	74 (30.8%)	46(34.8)	28(25.9)	0.1365
Restlessness	122 (50.8%)	65(49.2)	57(52.8)	0.5857
Slowing of thoughts	120 (50%)	73(55.3)	47(43.5)	0.0693
Pain	225 (93.7%)	128(97)	97(89.8)	0.0227
Back pain	165 (68.7%)	100(75.8)	65(60.2)	0.0096
Joint pain	131 (54.6%)	90(68.2)	41(38)	< 0.0001
Pain in extremities	145 (60.4%)	95(72)	50(46.3)	0.0001
Headache	178 (74.2%)	107(81.1)	71(65.7)	0.0070
Genito-urinary	111 (46.2%)	73(55.3)	38(35.2)	0.0019
Semen in urine/Dhat (including white discharge in females)	34 (14.2%)	8(6.1)	26(24.1)	0.0001
Premature ejaculation	14 (5.8%)	0(0)	14(13)	–
Erectile dysfunction	10 (4.2%)	0(0)	10(9.3)	–
Dysmenorrhea	41 (17.1%)	41(31.1)	0(0)	–
Genital pruritus	33 (13.7%)	20(15.2)	13(12)	0.4858
Leucorrhoea	48 (20%)	48(36.4)	0(0)	–
Gastro-intestinal	203 (84.6%)	116(87.9)	87(80.6)	0.1181
Abdominal pain	120 (50%)	74(56.1)	46(42.6)	0.0379
Nausea	96 (40%)	63(47.7)	33(30.6)	0.0069
Gas/Bloating	165 (68.7%)	93(70.5)	72(66.7)	0.5288
Constipation	92 (38.3%)	53(40.2)	39(36.1)	0.5219
Loose Stool	17 (7.1%)	10(7.6)	7(6.5)	0.7424
Lump in throat	24 (10%)	14(10.6)	10(9.3)	0.7293
Cardio-respiratory	197 (82.1%)	112(84.8)	85(78.7)	0.2169
Chest pain	114 (47.5%)	67(50.8)	47(43.5)	0.2639
Palpitation	154 (64.2%)	93(70.5)	61(56.5)	0.0247
Shortness of breath	121 (50.4%)	68(51.5)	53(49.1)	0.7067
Numbness	111 (46.2%)	63(47.7)	48(44.4)	0.6118
Dizziness	134 (55.8%)	85(64.4)	49(45.4)	0.0032

Chi-squared test was used to compare proportions of symptoms in males and females, ¹Fisher's exact test was used; Significant at $p = .05$ are marked in bold.

[29]. In the absence of any particular framework for understanding and explaining the condition, management of MUPS often results in clinical frustration [30] and ethical dilemmas regarding unnecessary pharmacological treatment and costly investigations [31].

In this background, the primary finding of our study of MUPS being the only diagnosis in 24.6% of all new patients coming for a consultation, is noteworthy. This estimate of MUPS is conservative, as the inclusion criteria for MUPS in this study was narrow in scope. Cases with clinical uncertainty in biological causality of underlying symptoms were excluded. Although such patients form a large and clinically important cohort, the diagnosis of MUPS is demoralizing to most patients. Therefore, we made a conscious effort to find underlying causes for the symptoms, and in cases where we were uncertain, we erred on the side of caution. Additionally, our experience tells us that in resource limited settings where primary clinicians are overwhelmed by the number of patients, systemic illnesses, autoimmune disorders as well as depressive episodes and anxiety disorders are often labelled as MUPS. We therefore made a conscious attempt to exert clinical restraint in application of the label of MUPS to patients. The magnitude of MUPS in our study, despite the narrow scope, exceeds that of anxiety disorders, depressive disorders or substance use disorders presenting to similar general medical settings [32].

Our findings of MUPS prevalence of 24.6% is overall similar to studies in the west [33] and in Asia [34]. However, reports on MUPS prevalence in primary care are inconsistent, with rates ranging from 1.1 to 60 [35,36] per 100 patients. In India, no study to date has investigated the prevalence of MUPS in medical out-patient setting. The closest approximation of the prevalence of MUPS in the country can be derived from a study from southern India analyzing the consultation patterns across Medicine and Psychiatry departments. The study reports

that 23.1 of all referrals from the medicine department to psychiatry was for patients presenting with MUPS [37]. Further, the finding of our study of MUPS being more common in the younger population is well established in studies from the West [36], where a decrease in MUPS after the age of 65 has been reported by most researchers [38,39].

Patients suffering from MUPS are known to present with multiple symptoms [2,3,10]. In this study, too, patients of MUPS presented with an average of 13 symptoms, with weakness, fatigue, and pain being the commonest. This is consistent with the findings of a nationwide survey in the Netherlands as well as the multicultural study by WHO, which reported that pain and fatigue to be four times more common than any other systemic symptoms in patients with MUPS [4,13]. Although a female preponderance of MUPS has been reported in most studies [3,11], the analysis of system-wise symptoms in our study provides a better understanding of the clinical presentation. Females with MUPS in this study complained significantly more pain symptoms and nausea, dizziness, and palpitations than men presenting with MUPS. Genitourinary symptoms were also more frequently reported by females than men. If MUPS is conceptualized as a culture-specific idiom of distress [10], then such sex differences in symptom presentation can be understood as a result of the complex interactions between culture, societal role, and gender expectations, which determines the illness behavior in all individuals [40, 41]. Conceptualizing MUPS as an idiom of distress also highlights the need to address the mental health needs in patients with MUPS. The high prevalence of neurovegetative symptoms in MUPS across all studies, including ours, further point to the possibility that these patients may be suffering from underlying depression or anxiety, as a syndrome or at symptom level, which may be the cause of MUPS or consequence to the long standing illness.

The limitations of our study primarily stem from the limitations of

the construct of MUPS. We did not use any stringent minimum symptom criteria for MUPS derived from somatoform disorders, as has been used elsewhere [16]. Rather, we conceptualized the construct of MUPS to be broader in scope than somatoform disorders. Similarly, we did not set any time criteria for symptom duration as a prerequisite for inclusion. Such symptom stability markers have been often used in research to improve diagnostic specificity, by adopting the definition of 'persistent MUPS' or 'Persistent Somatoform Pain Disorder.' We consciously avoided any such inclusion requirement, as the primary purpose of this study was to estimate the hospital prevalence of patients suffering from any symptom that cannot be medically explained. For comparison, 201 (20.6%) of our subjects had MUPS symptoms lasting for more than two months, while 192 (19.7%) subjects suffered from unexplainable symptoms for a duration greater than three months. A final methodological limitation of the study resulted from using structured symptom checklist in patients for MUPS. In this study, we documented all 'present symptoms' in the patient as per the checklist. However, we did not separately document the 'presenting complaint' of the patient. In retrospect, we think that although patients might report multiple symptoms when enquired, consultations are generally sought for few chief complaints. Separate documentation of such chief complaints may provide a better perspective of the symptom profile in MUPS patients.

Despite these limitations, the current study is the first to systematically investigate the hospital prevalence of the condition in India and Asia. Our findings, like a handful of other Asian studies [7,40], affirm that even in the developing world, patients with MUPS are common and pose a significant burden on the healthcare delivery systems [11]. It also lays the initial groundwork for future multidisciplinary and multicentric research on course, symptom profile, outcome and effective management strategies for MUPS.

A high prevalence of MUPS, as documented in our paper, makes a strong case for the establishment and strengthening of healthcare systems for provisioning services to patients and training to clinicians. Our clinical experience suggests that such patients can be effectively and satisfactorily managed by creating integrated clinics through liaison between psychiatry and medicine departments alone. Referring all patients to specialist departments increases the time to diagnosis, causes reduplication of clinical effort; and increases cost of treatment. In resource limited settings, where the waiting time for specialist consultation can extend to months, many patients fall through the gaps, suffering in silence or spending large sums of money in seeking private medical care. Referrals to psychiatry department are seldom followed up, as such referrals are perceived by patients to reflect the dismissive, condescending attitude of the clinician, rather than an effective pathway of treatment. Integrated clinics bring a combination of essential services to the patient, with a medicine specialist managing organic co-occurring morbidities, while providing time to the psychiatry specialist for exploring concomitant stressors and mood disorders. Physical and mental health-oriented counselling provided by nurses in such clinics often foster significant changes in patients even without any specialist intervention. Such close liaison between psychiatry and medicine also result in implicit training of medical residents and young clinicians, resulting in a more empathic approach to these conditions, as well as expertise to mental disorders. In the long term, such clinics can become the liaison center for not only MUPS but for common mental disorders, helping bridge the mental health treatment gap of the country.

This study represents our initial effort to understand the prevalence of MUPS in India and intends to sensitize the medical and psychiatric fraternity and policymakers for this condition for concerted action.

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