

Medically Unexplained Symptoms and Emotional Disorders Among School Children

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ABSTRACT

Objective: To determine the frequency of unexplained physical symptoms in 5-15 years old children and its association with emotional disorder in psychiatric clinic of a public sector hospital.

Study Design: Cross-sectional descriptive study

Place and Duration of Study: This study was conducted in the Department of Paediatric OPD, DIMC, DUHS, Karachi from January 2015 to June 2015.

Materials and Methods: 144 samples of 5-15 years old children of both genders with somatic /physical symptoms fulfilling the inclusion criteria which were referred to the Psychiatry clinic. Semi structured questionnaire based on Urdu version of SDQ parent version were filled by the parents to assess the emotional problems in these children.

Results: Analyses were completed for sample of 135 patients. 9 were excluded due to incomplete questionnaire. The mean age of children was 10.95 years. Pain predominated as physical symptoms in 5-10 years age group was pain, it included abdominal pain, headaches, limb pain, backache, chest pain. Fatigue, difficulty in breathing tremors, jerky movement and nausea and vomiting were more common in females. Anxiety disorder n=51 (50%), depression n=28 (28%), and somatoform disorder n=22 (22%) were the psychiatric comorbidities observed in these children.

Conclusion: Children presenting with unexplained medical symptoms are often not managed appropriately by the Pediatricians due to lack of awareness. Majority of children presenting with MUS suffer from emotional disorders.

Key Words: Medically Unexplained Symptoms, Emotional Disorders, School Children

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INTRODUCTION

Children suffering from emotional problems are unable to understand their feelings and medically unexplained symptoms and thus cannot inform their parents¹. Most of these children and their parents seek help from pediatricians². Medically unexplained physical symptoms (MUPS) vary in severity and number as documented in many studies conducted among children of different age groups and in different cultures. Most of these have significant adverse impact not only on child suffering from these symptoms including their academics and social life but also leads to considerable distress to their families³. As children suffering from MUPS do not have a medical diagnosis they often remain neglected. These children lack social legitimacy as 'sick' with physical illness. They are at times blamed for their own distress this leads to sense of worthlessness and shame in them. Further due to the immature cognitive development children are unable to understand and communicate their emotional distress and thus present as somatic symptoms⁴. In a study

conducted in India showed that the children suffering from MUS are more likely to suffer from Psychiatric morbidity including emotional disorders⁵. A study conducted by Costello, pain was the most frequent physical complaints associated with emotional problems in children of genders and this included stomachaches, backaches and musculoskeletal For both genders⁶. An association between musculoskeletal pains and depression was found in both girls and boys⁷. Pediatricians have children with MUS attending their clinics not infrequently and no organic cause explains the condition. It has been shown that these children suffering from MUS have increased consultations and health services utilization 50% and increase hospitalizations⁸. This causes an extra burden on the physicians, family and health services⁹.

To my knowledge in there is limited literature available in our country regarding on the pattern of presentations of medically unexplained symptoms and their association with emotional disorders among these children. This study will contribute in sensitizing those taking care of the children. Early identification of these conditions by pediatricians will help to manage so that long term negative consequences are prevented.

Operational Definitions:

1. MUS - physical symptoms for which no clear or consistent organic pathology can be demonstrated.

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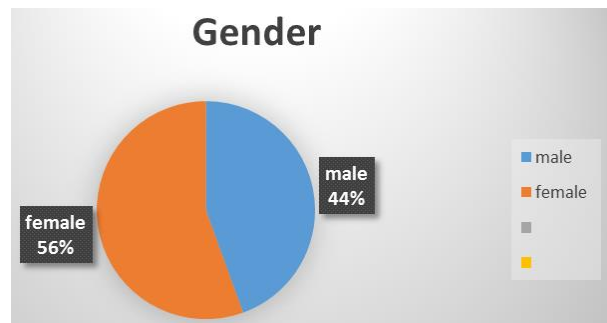
2. Child: A human being aged 5 to 15 years.
3. Psychiatric conditions include emotional disorders based on DSM 5 criteria: depressive disorder, anxiety disorders and somatoform disorder.

MATERIALS AND METHODS

It is a cross-sectional descriptive hospital based study. Ethical consideration were considered and approved by IRB DUHS. Written consent was obtained from parents of participating children. Those refused to participate were excluded. The children visiting the pediatrics in OPD of tertiary care public hospital of Karachi for physical complaints were evaluated through purposive convenient sampling of children and excluded for any organic cause. Children suffering from any physical disease to explain the physical symptoms, past history of already diagnosed from any psychiatric illness, mental retardation or any neurological disorders were excluded by the Paediatrician. 144 samples of 5-15 years old children of both genders with somatic /physical symptoms fulfilling the inclusion criteria which were referred to the Psychiatry clinic. The parents accompanying these children were briefed about the study. Semi structured proforma 2including socio-demographic data (age, gender, education, socio economic statuses were filled by the parents with assistance of researcher. Strength and difficulty questionnaire (SDQ) parent version translated in Urdu was used to assess the emotional problems in these children. SDQ includes 25 items for completion by the parents. Those scoring 1SDQ score of 17 or above were further assessed clinically for emotional disorders in children based on DSM 5 criteria. 2Statistical Package of social sciences (SPSS 17 version) was used to analyse data. Descriptive analysis of frequency, ratios were done to report the results.

RESULTS

Of the 144 patients were samples who met the inclusion criteria, 9 were excluded because of incomplete data. Analyses were completed for sample of 135 patients.



Graph 1: Gender distribution

Headache, abdominal pain and limb pain were most frequent. Multiple chronic pains in 22.9%

In 10- 15 years and both gender chronic fatigue proved to be the most frequent psychosomatic symptoms, followed by tension headache and lower back-pain.

Poly symptomatic medical symptoms were more than patients with single symptom as shown in bar chart 2. Those suffering from multiple complaints reported that these complaints suffered from sleep problems (60%), inability to pursue hobbies (55%), eating problems (52.4%), school absence (48.8%), and inability to socialize (44.7%).

Table No.1:Age distribution of children= Total=135

Age Group	Count	Percentage
5-9 years	70	51.8%
10-15 years	65	48.2

Table No.2: Pattern of MUS symptoms in children male to female percentage

Presenting symptoms	5-9 years %	10-15 years%
abdominal pain	M 9.5%, : F12.3%	9.6%, :14.8%
Headaches	M9.6%: F16.2%	18.3%, : 22.8%
chest pain	3.2% 4.6%	4.2% 4.6%
limb pain	M 2.3%:F2.9%	16.0% : 18.5%
Backache	13% :13.4%	40.5% :51.6%
Fatigue	4.5% : 5.2%	71% : 72%
Difficulty in breathing	1.4% : 2%	8% : 10.2%
Tremors, jerky movements	2.1% : 4.2%	11.8% :27%
Nausea and vomiting	3.1% :3.4%	3.7% : 11.6%

Physical symptoms seen in 5-10 years age group included pains including, abdominal pain, headaches, limb pain, backache, chest pain, fatigue, difficulty in breathing. Tremor and jerky movement and nausea and vomiting were more common in females. While in 5-9 years limb pain and abdominal pain were more common Pain was the most common presentation among all ages with Headache (62.8%), abdominal pain (48.8%), and limb pain (51%), backache (51.6%). In both gender chronic fatigues proved to be the most frequent psychosomatic symptoms, followed by tension headache and lower back-pain. SDQ less than 17 = 28 (21%) More than 17 score was in n= 108 (79%). Further clinical assessment for emotional disorder based on DSM 5 criteria. Total n=101 (74%) suffered from emotional disorder. Anxiety disorder n=51 (50%), depression n=28 (28%), and somatoform disorder n=22 (22%). Anxiety disorder was the most common emotional disorder in children suffering from multiple somatic complaints as compared to mono-symptomatic.

DISCUSSION

MUPS are commonly found in children and increase with age. It is reported 10% to 15% of visits in medical services¹⁰. Our findings correspond to the results from another studies in which more females are reported to experience MUS three times more but in our study gender difference is not marked¹¹. There was variability in presentation of somatic symptoms in children¹². Pain was the most common presentation among all ages¹³, headache (60.5%), abdominal pain (43.3%), and limb pain (33.6%), backache (26%)¹⁴. This is similar to findings in studies conducted¹⁵ in Dutch children and also in Pakistan¹⁶. Up to 70% of people suffering with MUPS will also suffer from depression and/or anxiety disorders. This is of significance because these disorders are detectable and treatable, irrespective of the explanation for the physical symptoms. The study showed a relationship between medically unexplained somatic complaints and emotional disorders with most notable anxiety disorders¹⁸. Finding in our study is consistent to the other studies that in genders, stomach aches and headaches together and musculoskeletal pains are associated with anxiety disorders⁶. Musculoskeletal pains were also found to be associated with depression⁷. As in this study indicates children were more likely to have multiple somatic complaints as compared to one complaint. Further those with poly-symptomatic complaints are more likely to suffer from emotional disorders as compared to mono-symptomatic. This corresponds to the findings in a large epidemiological study the Great Smoky mountain project in which children with anxiety disorders are 100 times more likely to experience somatic complaints¹⁷. Many studies have identified MUS and its association with emotional disorders children¹⁸.

Significant association has been found in the study as also documented in a study conducted in Italian student community¹⁹. In children with pain and chest pain youngsters had higher levels of some anxiety symptoms same as this study²⁰. The study conducted in Italy suggests that unexplained somatic symptom can be often considered as expression of a neglected anxiety and/or depressive disorder in a considerable proportion of children which is similar to finding in our study^{21,22}. Somatoform disorder is also not uncommon which similar finding of this study²³.

CONCLUSION

Emotional disorders in C&A may present as unexplained physical symptoms. There is need of awareness, early identification of these conditions by pediatricians to manage and refer for further assessment of emotional disorders.

Strengths: This study findings shows that children present with somatic symptoms in Pediatric clinics and

referred for further psychiatric evaluation suffered from emotional problems

Limitations: the measures of MUS and emotional problems were based on a single informant, i.e. parental report. The factors leading to this problem were not assessed. It's a hospital based cross sectional study so results cannot be generalized to the population in general. Sample size is limited Future studies are recommended to investigate with larger samples to identify the whole spectrum of MUPS in different age group of children and establish its association with psychiatric disorders. It may provide more precise measures of the impact of MUPS on these children along with its implications for the management and prevention.

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Conflict of Interest: The study has no conflict of interest to declare by any author.

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