PATTERN OF CHILD PSYCHIATRIC EMERGENCIES AND CONSULTS IN A TERTIARY CARE HOSPITAL, KARACHI

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ABSTRACT

OBJECTIVE
To report patterns of referrals from Emergency Department (ED) and other departments for Child and Adolescents (C&A) mental health problems

DESIGN
Retrospective case review

PLACE AND DURATION OF STUDY
The study conducted at Aga Khan University Hospital, from June 2010 to December 2012

SUBJECTS AND METHODS
We did review of all the cases (<18 years of age) for whom psychiatric referral was generated for mental health problems from ED and/or other departments at Aga Khan University Hospital. Data was entered and analyzed using SPSS 16. Chi square was used for categorical variables and t-test was applied for continuous variables. P value of less than 0.05 was taken as statistically significant. Exemption from the AKU Research Ethics Review Committee was taken.

RESULTS
Among the 160 consults generated in this time period, 90 were girls. The majority presented with suicidal behavior (26%) followed by behavioral symptoms (16%). Out of 160 cases, 61 (38%) were diagnosed with mood disorders and 28 cases (17%) received the diagnosis of conversion and adjustment disorder. In 21% (n=33) of the consults there was no diagnosable mental illness. Family conflict was found to be the main stressor. In 43% of cases no psychotropic was prescribed.

CONCLUSION
C&A with mental health problems can present in a general medical setup with varying issues and stressors. Physicians who are expected to assess them at ED and other departments should be trained to identify and address common mental health problems including suicidal behaviors. There is a huge need to develop effective consultation liaison services for C&A in hospitals.

KEYWORDS
Child mental health Pakistan, emergency child psychiatric disorders.

INTRODUCTION

Child and adolescent mental health service (CAMHS) is an essential component of a tertiary care hospital. Its domain ranges from outpatient & inpatient units, teaching, and to trained medical staff dealing with child and adolescent (C&A) and staff providing consultation liaison services across the hospital including emergency department (ED). Prevalence of mental health problems in Child and Adolescent is on the rise across the globe. At present prevalence of mental health disorders in C&A is approximately 20%, of which around 4-6% requires clinical intervention.

C&A presents in ED either with an acute psychiatric disturbance or with a relapse of previously diagnosed psychiatric illness. In addition to ED, other departments who have facility of admitting C&A also seek consultation for mental health problems for this specific population. According to a research, approximately 200,000 to over 825, 000 C&As visits ED annually in USA. Multiple studies reports suicidal behavior as one of the most common presentation in ED. C&A also presents with depression, abuse, agitation, anxiety and psychotic episodes in ED. A study from Europe reports substance abuse (21%) as the most common problem for referral from pediatrics ward followed by suicide attempts (17%), eating disorder (15%), depression and adaptive disorders (both 8%).[6]

A school based study done in Karachi reported 17% of children as having a common mental disorder, highlighting the need to establish CAMHS. Trained personnel in C&A psychiatry are abysmally low in number (approximately 0.8% of all Psychiatrists in country) in Pakistan, risking a vast majority of population to sub-standard mental health services. Research in this important area is also scarce. Up to best of our knowledge there is no study from this region that reports pattern of referrals from ED and other departments. This study is an attempt to bridge the research gap in this area of C&A mental health by reporting pattern of referral from ED and other departments of hospital.

METHODOLOGY

This is a retrospective case-note review of all referrals generated by ED and other departments for mental health problems related to C&A at Aga Khan University Hospital (AKUH), Karachi. AKUH is a 500 bedded private tertiary care teaching hospital and is the only Joint Commission International Association (JCIA) accredited institute in the country.

We extracted medical records from electronic medical record system and included all files of C & A below 18 years of age, from june 2010 to december 2012. A data collection form was designed and piloted on first 10 files. Data was entered and analyzed using SPSS 16. Chi square was used for categorical variables and t-test was applied for continuous variables. P value of less than 0.05 was taken as statistically significant. Exemption from research Ethics Review Committee was taken.

Table1: Psychiatric Diagnosis Made by Psychiatry Team

DIAGNOSIS	MALES n (%)	FEMALES n (%)	TOTAL n (%)	P-VALUE
Mood Disorders (MDD, BAD† 06 cases only), Anxiety)	27 (44.2)	34 (55.4)	61 (38.8)	0.010
Conversion and Adjustment Disorder	6 (21.4)	22 (78.5)	28 (17.5)	
Psychosis (including Acute Psychotic episode and Schizophrenia)	8 (50)	8 (50)	16 (10	
Organic Disorder (Mental Retardation/Learning Disability/ Delirium)	3 (37.5)	5 (62.5)	8 (5.1)	
Others	6 (42.8)	8 (57.2)	14 (8.8)	
No Psychiatric Diagnosis	20 (60.6)	13 (39.3)	33 (20.6)	
TOTAL	70 (43.2)	90 (56.2)	160 (100)	

*Based on DSM-IV TR
† Major Depressive Disorder, Bipolar affective disorder

RESULTS

160 consults were generated during our study period (average 5.16 consults per month). Out of these, there were 70 boys (44%) and 90 girls (56%), with a ratio of 1.2:1 (boys: girls). Mean age was 14.84 years (range 2-18 years), 15.1 (SD +- 3.27) for boys and 14.6 (SD +_2.51) for girls. Most of the patients 46% (n=73) were in their secondary education (6-10th grade) followed by 16% (n=25) in Higher secondary education (11-13th grade), 14% (n=22) in primary education (1-5th grade), while data was missing in 21% of cases. Majority (66%) of referrals were from Emergency department followed by pediatrics (23%) and other in-patient units (11%). In 82% (n=131) of cases, interviews were given by first degree relatives, with second degree relatives giving details in just 4% (n=6) of cases.

C&A presented with varied symptoms: They included Suicidal behavior (26%), behavioral symptoms (16.9%), mood symptoms (13.8%), physical symptoms (13.8%), Pseudo Neurological symptoms (13.8%) and psychotic symptoms (6.3%) (Figure 01). Females were more likely to have a psychiatric illness than males (p-value 0.010) (Table 1). Mood disorders were the most common psychiatric disorders (n=61, 38.8%), of which 34% presented with symptoms of Depressive and anxiety disorder, followed by conversion and adjustment disorders (n=28, 17.5%). In 21% (n=33) of the consults, there was no diagnosable mental illness (Table 1). Major stressors identified were stress due to medical illness in 17% of cases, followed by interpersonal conflicts, particularly within the family context or significant others (16%, n=26). No statistical difference in gender was found in the type of stressors (p-value 0.54). (Table 02).

Table2: Stressors Identified in Patients

STRESSORS	BOYS n (%)	GIRLS n (%)	TOTAL n (%)	P-VALUE
Medical Problem	16 (57)	12 (42.8)	28 (17.5)	0.541
Conflicts (family & others)	9 (34.6)	17 (65)	26 (16.2)	
Academic	10 (45.4)	12 (54.5)	22 (13.7)	
Others	7 (41)	10 (58.8)	17 (10.6)	
None	28 (41)	39 (58.8)	67 (41.8)	
TOTAL	70 (43.2)	90 (56.2)	160 (100)	

Out of 160 consults, 53% (n=85) were prescribed one of the psychotropics, 4% (n=6) were prescribed medications other than psychotropic and no psychotropic was advised in 43% (n=69) of cases. Outpatient follow up was advised in 50% (n=80) of cases, while 25% (n=40) patients were transferred to psychiatric ward for further management.

DISCUSSION

This study describes pattern of C&A referrals from ED and other wards of a tertiary care hospital in Pakistan. Referral rate in our study was less (05 consults per month) as compared to another study (28 consults per month).[13] This could be due to many factors; such as lack of awareness about mental illnesses among parents and doctors and the stigma attached to such behaviors. psychiatric illnesses are generally less prioritized in the ED setting and financial reasons could be another factor as some parents get their children discharged before involving the psychiatry team.

Our study found suicidal behavior (26%) as the most common presentation. This finding is similar to many studies: 11-25% of all referrals from ED, 62.5% from an inter-city sample of london, 17% in a European hospital 6 and 20% in a Australian hospital.[3-5] A previously done study in the same center reported 69 cases of DSH in ED during the period 1990 to 2006 and concluded that an effective service should be developed for future referrals of such C&A. Suicidal behavior is the most concerning behavior as it is a terminal event, and thus poses a challenge to health care professionals for proper assessment in a short time. This also presses the need of developing more structured and flawless assessment. ED physicians and health care workers (like Pediatricians) dealing with C&A should receive structured training for suicide risk assessment.

In this study majority of the consults were from ED (66%), followed by the Pediatrics ward (23%). This finding points toward the increased responsibility of ED physicians in assessment and management of C&A with mental health issues.

This study found that being a female child increases the risk of having psychiatric disorders. Evidence for gender specific burden of mental disorder is mixed; some suggest increased prevalence of mental disorder in male children, while the rest report increase in female children especially in cases of DSH and depression.[6,11,13] This entails the need to have a more detailed scientific evaluation of this phenomenon to know the causality of these results.

Among the Psychiatric disorders, depression and anxiety disorders (34%) were found to be the most common psychiatric disorders. This can also be correlated with the high prevalence of common mental disorder among adults in Pakistan and across the globe. Stressors are crucial as they not only cause but also perpetuate exiting illnesses. In young it becomes more pertinent as the expression could be variable from regression to aggression. In our study stress because of suffering from medical illness (17%) and interpersonal conflicts (16%) were most common followed by Academic stress (13%). In a study by Syed & Khan, stressors related to school and home related were risk factors to suicide attempts.[14]

This was a retrospective review so data collection was based on available records only. In some cases the patient got discharged before being seen by a consultant psychiatrist, leading us to rely on the residents' notes and discussions with attending on the phone. The Sample was from only one institute and small, so generalizability cannot be possible.

CONCLUSION

Despite of small sample size this study does communicate a need to develop C&A mental health services. This study highlights the importance of suicidal behavior in C&A and the need to train health professionals for prompt and flawless assessment. There is need to identify risk factors for increased prevalence of mental health issues in female gender and to plan a national programme. This study also communicates a dire need to develop effective consultation liaison in tertiary care hospital.

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