Original article

Dropout rates among patients attending child and adolescent psychiatry services of a tertiary care center: A retrospective study from north India

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Abstract

Background: Little information is available about dropout from treatment for children and adolescents attending the various psychiatric services.

Aim: This study aimed to evaluate the drop-out rates of patients attending child and adolescent psychiatry services.

Methods: A retrospective review of 2249 case records of all patients aged up to 15 years registered in child and adolescent psychiatry services from 1st January 2017 to 31st December 2018 was carried out. Details regarding socio-demographic data, clinical data and follow up status were extracted from the records.

Results: The mean age of the study sample was 11.11(SD: 3.58) years. About two-fifth (n=1003; 43.99 %) did not follow up at all after the first walk-in contact. Additionally, about one-tenth (n=247; 11 %) dropped out by the one month of the first contact, another one-eighth (n=275; 12.2 %) dropped out by 3 months of the first contact with outpatient services and another one-eighth (n=301; 13.4%) dropped out of the follow-up by 6 months of the first contact. Only one-fifth (n=423; 18.8%) of the patients followed up beyond 6 months of the first walk-in contact. No significant difference was noted between those who continued to follow-up and those who dropped out in terms of age group, gender, and the number of

diagnoses made at the initial evaluation. Those who dropped out of treatment were less often prescribed medications in the form of antipsychotics or antidepressants.

Conclusion: This study shows that there is a high dropout rate from the child and adolescent psychiatric outpatient services. Accordingly, strategies need to be developed to minimize dropout rates.

Introduction

Child and adolescent mental health problems are an important concern to the country as it determines the future productive population of the country [1]. Hence, addressing the child and adolescent mental health problems is of utmost importance. Management of most of the mental health problems in children and adolescents requires a combined treatment strategy of pharmacological and non-pharmacological measures [2]. Accordingly, appropriate management of child psychiatric disorders requires frequent visits to the hospital, adherence to the non-pharmacological treatment and pharmacological treatment [2]. Hence, understanding the treatment adherence is of importance.

Adherence to treatment is broadly categorized as adherence to medications, adherence to advice (non-pharmacological measures) and adherence to treatment appointments. Formally, treatment adherence is defined as *"the extent to which a person's behaviour, taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health-care provider"*. Additionally, treatment adherence also applies to conform to the scheduled appointments with the clinicians [3].

Dropout from treatment is understood as total disengagement from the treatment, in the absence of either clinical resolution of symptoms or an agreed-upon plan for the termination of treatment[3]. Some of the authors have defined, a dropout from treatment as *"having*

attended at least one session for diagnostic assessment or treatment and discontinuing the assessment or treatment process on the patient's initiative by failing to attend any further planned visit" [3].

Available data suggests that a notable proportion (28-75%), although initially seek the help of mental health professionals, go on to drop out of treatment [4-12]. A systematic review and meta-analysis of studies, which evaluated the treatment dropout from the child and adolescent outpatient mental health services, suggested that the dropout rate for the efficacy studies ranges from 16 to 50% and that in effectiveness studies ranges from 17 to 72% [13]. This meta-analysis also evaluated the various factors which were associated with dropout from treatment. Among the factors related to the children, having higher level of contact with deviant peers was reported to be associated with medium to large effect size. In terms of caregiver factors, homelessness, lack of knowledge about the diagnosis among the mothers, poor confidence of caregivers about the benefit of therapy for their child were associated with dropout from treatment. The various therapists related factors associated with treatment dropout with medium to large effect size included weak therapeutic alliance, being directive, being perceived as controlling, lacking focus and empathy [13].

There are a limited number of studies, which have focused on dropout patterns of children and adolescents. An estimate suggests that only 1–2% of dropout studies focus on children or adolescents [11].

Many studies from India, have evaluated the dropout pattern of patients presenting to mental health facilities and these suggest that about one-fifth to three-fifth (21%–59%) of adult patients and about 28.5%-41.4% of the elderly patients with mental disorders drop out of treatment after the initial visit [3]. However, there is a lack of studies that have focused on the dropout rates of patients presenting to Child and Adolescents Psychiatry Clinics. One retrospective study, evaluated the dropout rate of adolescents aged 12-18 years, with a

diagnosis other than the mental retardation, epilepsy, and nil psychiatry, attending a tertiary care hospital and reported that 45.57% of the 1446 adolescents registered with the services did not return to the clinic after the first visit. The dropout rate was higher for females and those who were aged 16-18 years. The higher dropout rate was also seen among those with the diagnosis of borderline intelligence, adjustment disorders, anxiety disorders, dissociative and somatoform disorders, and substance use disorders [12]. However, an important fact to note that this study, did not include children aged <12 years. Another small sample size study, which specifically evaluated children with pervasive developmental disorders, reported high dropout rates [14]. In this background, this study aimed to evaluate the drop-out rates of patients attending the Child and Adolescent Psychiatry (CAP) clinic of a tertiary care center of north India.

Methods

This study was conducted in a tertiary care multispecialty government-funded hospital. The study was approved by the Ethics Committee of the Institute, i.e., Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh.

Treatment Setting

Department of Psychiatry, PGIMER runs CAP clinic on 6 days of the week, i.e., Monday to Saturday. Children and adolescents are brought to the outpatient services by parents/family members. Patients are directly brought by the family members or are referred to the psychiatric services by other specialists within the hospital or outside the hospital, teachers or school authorities and other governmental agencies like child care homes or legal services. A separate walk-in proforma is available for children aged from 0 to 15 years.

All the patients presented to the Walk-in clinic (WIC) are first evaluated by a Senior Resident (DM Trainee in Child and Adolescent Psychiatry) and/or a faculty member. Before being

seen by a psychiatrist, socio-demographic details and source of referral of the patient are documented by the psychiatric social worker.

Assessment at the walk-in level involves obtaining a comprehensive history, review of available treatment records, physical examination, and mental status examination. Based on the available information, a provisional diagnosis is made as per the International Classification of Disease-10 version (ICD-10). Planned and executed management in the form of suggested investigation [both physical & psychological (Assessment of Intelligence Quotient, Conflict assessment, assessment for specific learning disability)], referral to other services, medication prescribed and psychological treatment given is noted down in the walk-in proforma. An appointment for a detailed workup is given. The time interval between the first evaluation in the walk-in and date of detailed workup varies from few days to 1month depending upon the availability of slots and required priority, decided based on the clinical and feasibility factors. Some of the patient's follow-up at the walk-in, more than once, before detail work-up.

The patients, for whom no psychiatric diagnosis can be made (i.e., category of Nil psychiatry) are usually advised to follow-up further with psychiatric services so that further evaluation can be done to be sure that they do not have a psychiatric disorder.

On the day of detailed workup, the patient is evaluated either by a DM Child and Adolescent Psychiatry trainee or an MD, Psychiatry trainee junior resident. Detailed workup involves collecting information about the presenting symptoms, detailed developmental history starting from the antenatal period till data of evaluation, information about the temperament, parenting styles, family environment, childhood adversity, educational history, life events, symptom history, family history of mental illness and treatment history if any. The patient also undergoes detailed anthropometric evaluation and mental status examination. Intelligence Quotient is also evaluated for most of the patients at the time of detailed

evaluation by a qualified clinical psychologist. Based on all the available information, diagnosis (as per the ICD-10) is made and a detailed management plan is formulated and the patient is followed up regularly. Appropriate referrals are made to different specialties, as per the need. During the follow-up, all the treatment details are added to the same case records.

Extraction of Data

For this retrospective study, walk-in proforma of all the Children and Adolescents aged up to 15 years, registered with the Child and Adolescent Psychiatry services during the period of 1st January 2017 to 31st December 2018 were reviewed and the socio-demographic data, clinical data, and information about the number of follow-ups were extracted from the available records.

Patients/families who did not come for follow-up beyond 3 months of scheduled follow-up assessment were considered to be dropout from the study. Accordingly, dropout from treatment for this study was defined as disengagement from services, beyond 3 month of the scheduled follow-up appointment, without the mutual agreement between the therapist and the patient's family.

Data were analysed by using Statistical Package for Social Sciences (SPSS-14). Descriptive analysis was computed in the form of mean, standard deviation, range, frequency, and percentages. A Chi-square test was used to compare the groups on categorical socio-demographic and clinical variables.

Results

During the study period, 2280 patients were evaluated by the CAP services. Data of 31 patients were missing. Resultantly, data of 2249 subjects were analysed. The mean age of the study sample was around 11 years (3.58) with a range of 1-15 years. Almost half (52.6%) of the sample was aged less than 12 years and the other half (47.4%) was aged 13-15 years. The

majority of the patients were males (67.5%), were attending a formal school (88.3%) and Hindu by religion (80.8%). About one third (37.6%) of the participants were from the tri-city (i.e., Union Territory of Chandigarh, Mohali, and Panchkula). A majority (60.4%) of them were brought to the CAP services at the initiative of the family members/family friends and about one third (37.8%) were referred from outpatient services of the other departments of the hospital of specialists in the private sector or other government hospitals. A very small proportion (1.7%) was referred by the school.

Most common primary diagnosis was neurodevelopmental disorder (n=954, 42.4%), followed by neurotic and stress-related category (n=391, 17.4%), emotional and behavioral disorder related category (n=107, 4.8%), organic brain syndrome (n=100, 4.4%), mood disorder (n=76, 3.4%), nil psychiatry category (n=68, 3%) and psychotic disorder category (n=44, 2%). A small proportion (5.4%) of the patients had more than 1 diagnosis. In about one-fifth (n=503, 22.4%) definite diagnosis could not be reached at first walk-in contact. Around one-fifth of the sample was prescribed medication. In one-third, psychological tests were recommended and in around 2% of cases the referral was made to other departments for expert opinion and further evaluation (Table-1).

About two-fifth (N=1003; 44.6 %) of the patients did not return to the clinic after the first walk-in contact. About one-tenth (n=247; 11%), although came back to the clinic at least once after the first walk-in visit, but dropped out by the one-month of first walk-in contact and another one-eighth (n=275; 12.2 %) although came back to the clinic at least once after the first walk-in visit, dropped out from follow-up after 3 months of the first walk-in contact with outpatient services. Another one-eighth (n=301; 13.4%) dropped out of the follow-up by 6 months of the first contact. Only one-fifth (n=423; 18.8%) of the patients followed up beyond 6 months of the first walk-in contact. Detailed workup was done for slightly less than half of the patients seen in the walk-in clinic (Table-2)

Table-1: Clinical details of the study sample

Clinical Variables	N=2249; Frequency (%)
Number of diagnoses:>1	121 (5.4)
Primary Diagnosis	
Neurodevelopmental disorder	954 (42.4)
Deferred	503 (22.4)
Neurotic, stress, a somatoform related disorder	391 (17.4)
Emotional, behavioral disorder	107 (4.8)
Organic category	100 (4.4)
Mood disorder	76 (3.4)
Nil psychiatry	68 (3)
Psychotic disorder	44 (2)
Others	6 (0.3)
2nd Diagnosis	121 (5.4)
Neurodevelopmental disorder	61 (2.7)
Organic	37 (1.6)
Emotional, behavioural disorder	13 (0.6)
Neurotic, stress, somatoform related disorder	6 (0.3)
Mood disorder	2 (0.1)
Psychotic disorder	2 (0.1)
Medication prescribed	**382 (17.0)**
Antidepressant	231 (10.3)
Antipsychotic	132 (5.9)
Benzodiazepine	103 (4.6)
Mood stabilizer	9 (0.4)
Psychological tests recommended	672 (29.9)
Referral for opinion from other specialities	37 (1.6)

Others: 5 cases of Trichotillomania and 1 case of Z category of ICD 10

Organic: epilepsy and migraine

Table-2: Follow up data extracted from case records

Variables	N=2249; Frequency (%)
Follow up status	
No, follow up at all after first WIC contact	1003 (43.99)
Additional drop out by 1 month	247 (11.0)
Additional drop out by 3 months	275 (12.2)
Additional drop out by 6 months	301 (13.4)
Continued follow up beyond 6 months	423 (18.8)
Detailed Work up done	1025 (45.6)

Comparison of those who followed up beyond 6 months with those who dropped out of treatment at various time points within 6 months:

Those who followed up beyond 6 months of the first contact to the CAP services (N=423, 18.8%, Group-V) were compared to those who dropped out after the first contact to OPD (N=1003, 43.99%, Group-I), those who dropped out by the 1 month of the first contact to OPD (N=1250, 55.6%; Group-II), those who dropped by 3 months of the first contact to OPD (N=1525, 67.8%; Group-III) and those who dropped out by 6 months of the first contact to OPD (N=1826, 81.2%; Group-IV).

No significant difference was seen between group-I (i.e., who followed up beyond 6 months) and any of the dropout groups (i.e., rest of the 4 groups) for age, gender, and the number of diagnoses made at the initial evaluation. Compared to those who followed-up beyond 6 months, those who dropped out were less often going to a formal school, less often had a diagnosis of neurodevelopmental disorder (Group-II and Group-III); less often had a diagnosis of a mood disorder, psychotic disorder, less often had 'other' diagnosis; more often had a diagnosis of the organic condition (Group-II only), deferred diagnosis or 'Nil Psychiatry' diagnosis and less often were prescribed medications in the form of antipsychotics or antidepressants (Table-3).

Table-3: Comparison between the groups

Variables	Group 1 Dropped at first contact (n = 1003) Frequency (%);P-value (comparison with group 1)	Group 2 Dropped out within 1 month (n=1250) Frequency (%); P-value (comparison with group 1)	Group 3 Dropped out within 3 months (n=1525) Frequency (%) P-value (comparison with group 1)	Group 4 Dropped out within 6 months (n=1826) Frequency (%)P-value (comparison with group 1)	Group 5 Followed up beyond 6 months (n=423) Frequency (%)
Age : 0-12 >12	553 (55.1) 450 (44.9)	675 (54) 575 (46)	821 (53.8) 704 (46.2)	966 (52.9) 860 (47.1)	216(51.1) 207(48.9)
Gender: Male	665 (66.3)	838 (67)	1028 (67.4)	1230(67.4)	287(67.8)
Going to formal school	864(86.1)***	1083(86.6) ***	1324(86.8) ***	1590(87.1) ***	395(93.4)
Residence: Tricity	368(36.7)	470 (37.6)	566 (37.1)	683 (37.4)	162(38.3)

Religion : Hindu	821(81.9)	1026 (82.1)	1246 (81.7)	1481 (81.1)	337(79.7)
Locality : Urban	417(41.6)	525 (42)	645 (42.3)	774 (42.4)	191(45.2)
Work up: Yes	10(1) ***	171 (13.7) ***	362 (23.7) ***	618 (33.8) ***	407(96.2)
Number of diagnosis: >1	39(3.9)	60 (4.8)	78 (5.1)	97 (5.3)	24(5.7)
Diagnosis					
Neuro-developmental	365(36.4) **	473 (37.8) **	612 (40.1)	763 (41.8)	191 (45.2)
Mood disorder	25(2.5) **	35 (2.8) *	45 (3) *	53 (2.9) **	23 (5.4)
Psychotic disorder	9(0.9) ***	14 (1.1) **	22 (1.4) **	29 (1.6) **	15 (3.5)
Neurotic, stress related & somatoform disorder	160(16)	219 (17.5)	265 (17.4)	316 (17.3)	75 (17.7)
Emotional and behavioural disorders	51(5.1)	63 (5)	72 (4.7)	87 (4.8)	20 (4.7)
Organic conditions	64(6.4) *	69 (5.5)	78 (5.1)	85 (4.7)	15 (3.5)
Others diagnosis	2(0.2) *	2 (0.2) *	2 (0.1) **	2 (0.1) **	4 (0.9)
Deferred	268(26.7) **	314 (25.1) **	365 (23.9) *	425 (23.3) *	78 (18.4)
Nil psychiatry	59(5.9) ***	61 (4.9) ***	64 (4.2) ***	66 (3.6) **	2 (0.5)
Referral source					
Relative/friend	602(60)	760 (60.8)	923 (60.5)	1093 (59.9)	266(62.9)
School	10(1)	11(0.9)	22 (1.4)	33 (1.8)	6(1.4)
Others	391(39)	479 (38.3)	580 (38)	700 (38.3)	151(35.7)
Medications	127(12.7)***	184 (14.7) ***	228 (15) ***	275 (15.1) ***	107(25.3)
Antipsychotic	36(3.6) ***	49 (3.9) ***	67 (4.4) ***	86 (4.7) ***	46(10.9)
Antidepressant	82 (8.2) ***	119 (9.5) **	145 (9.5) **	170 (9.3) **	61(14.4)
Mood stabilizer	4(0.4)	5 (0.4)	6 (0.4)	7 (0.4)	2 (0.5)
Benzodiazepine	33(3.3)	57 (4.6)	68 (4.5)	80 (4.4)	23(5.4)
Psychological tests	274(27.3)	352 (28.2)	436 (28.6)	543 (29.7)	129(30.5)
Referred to other departments	22(2.2)	24 (1.9)	30 (2)	30 (1.6)	7(1.7)

***p value < 0.001; **p value <0.01; *p value <0.05

Discussion

There is a lack of data on the dropout and follow-up pattern of children and adolescents seen by the CAP services. Understanding these variables can help in organizing the services better, to reduce the treatment dropout rates and possibly improve the overall outcome of these children and adolescents. This study attempted to fill this void by using a retrospective design, by analyzing the data of all the patients, rather than limiting the analysis to a specific group of patients. Previous studies from other parts of the world, which have evaluated the dropout rates for children and adolescents, have limited themselves to a sample size of 33-

11659, with only one study having a sample size of more than 1500 [11]. Compared to these studies, the sample size of the present study was relatively large.

The present study suggests that slightly less than half (43.99%) of the children and adolescents evaluated by the CAP services at a tertiary care hospital drop out of treatment after the first visit itself and about four-fifth (81.2%) of the children drop out of treatment by 6 months of initial presentation. When we compare our findings with previous studies from developed and developing countries, existing data suggest that about 28 to 75% of children and adolescents drop out of treatment [4-12]. However, some of these studies have defined dropout based on disengagement from treatment, without mutual agreement and have not specified the time frame of dropout [5]. In contrast, in the present study, the definition of the dropout was although similar to the previous study, but we were able to identify the time frame of dropout from the treatment. When we compare the findings of the present study, with the previous study from India involving adolescents, which focused on the dropout rate after the initial visit, our finding of 43.99% is comparable to the figure of 45.57% reported in this study [12]. When we compare the findings of the present study, with studies from India involving adult patients (dropout rates: 21%–59%) and elderly (dropout rates: 28.5%-41.4%), it can be said that the initial dropout rates for children are comparable to the elderly and close to the higher end of the reported range for the adults [3]. Based on the findings of the present study, it can be said that a significantly large proportion of the patients evaluated by the CAP services drop out of treatment after the first visit and by 6 months, attrition rates are higher than 80%.

Existing literature also suggests a lack of association of dropout status with any of the socio-demographic variables [5,7,8,14-16]. The findings of the present study support the same.

In terms of clinical factors associated with dropout status, the present study shows that, compared to those who followed-up beyond 6 months, those who dropped out after the first

visit and at various other time frame were less often going to a formal school; less often had a diagnosis of neurodevelopmental disorder (significant difference at initial dropout and dropout at 1 month), mood disorder, psychotic disorder, and 'other" diagnosis; and more often had a diagnosis of the organic condition (Group-II only), deferred or 'Nil Psychiatry' diagnosis. Those who dropped out of treatment were also less often prescribed medications in the form of antipsychotics or antidepressants. The previous study from India, which evaluated the dropout rates among adolescents, suggests that diagnosis of borderline intelligence, adjustment disorders, anxiety disorders, dissociative and somatoform disorders, and substance use disorders are associated with dropout rate status after the first visit [12]. Compared to this, findings of the present study do not suggest that the diagnostic group of neurotic, stress-related and somatoform disorders are associated with dropout status. These differences could be due to the difference in the age group of the study sample and the comparator group used. In the present study, we used those who followed up beyond 6 months as the comparator group, compared to the previous study, which used all the patients, who followed up, more than once as the comparator group. Accordingly, the approach used in the previous study could have a mix of patients who drop out after additional 1-2 visits, and those who continued to follow-up and this could have influenced the findings of the previous study. Data from other countries, which have evaluated the dropout status of children and adolescents, suggest that those with externalizing disorders like conduct disorder and ADHD more often drop out of treatment [5]. However, our findings do not support this association. This lack of association in the present study could be because we grouped patients with Intellectual disability, autism spectrum disorder, specific learning disorders, and borderline intelligence and ADHD into neurodevelopmental disorders. Accordingly, our findings must be considered preliminary and there is a need for further studies to conclude.

A systematic review and meta-analysis of data, which evaluated the reasons for dropout from psychotherapeutic interventions among children and adolescents suggest that compared to child related factors, it is the parental factors and the therapist variables which influence the dropout from psychotherapy [13]. Our study did not evaluate these issues specifically, because of retrospective study design, but it can be hypothesized that possibly the parents are not provided adequate information about the disorder, which possibly contributes to high dropout rates. Further, in the busy outpatient setting therapeutic alliance is not developed that strongly. Keeping these facts in mind, in the Indian context, usually, all the treatment decisions for children and adolescents are taken by parents. Accordingly, it is important for the treating psychiatrists to adequately inform the parents about the diagnosis, course and prognosis, type of treatment required, duration of treatment. This should be done, by devoting enough time to the parents, so that they have the opportunity to ask questions and satisfy themselves. This could help in better engagement of parents and resultantly the children and adolescents. This may also help in formation of adequate therapeutic alliance, which can lead to reduction in the dropout rates.

The present study has certain limitations. Since it was retrospective charts review not all factors that can be associated with a dropout of treatment, such as parental and family beliefs about the diagnosis and etiological models, the cost of treatment, distance from the hospital could be evaluated. Further, we did not evaluate the medication adherence of the patients. Another limitation of the study include limitations of the study sample to those aged up to 15 years only and the sample size was limited to 2 years data.

The results should be interpreted with limitations into consideration. Prospective study design taking all factors into consideration like individual factors, family factors, therapist factors, and various clinical factors will help in tailoring the management holistically.

To conclude high dropout rate from the CAP outpatient services of a tertiary care center suggest that this group of population is unique and accordingly different strategies need to be developed to minimize the dropout rates.

References

1. Shastri PC. Promotion and prevention in child mental health. Indian J Psychiatry 2009, 51:88-95.

2. O'Brien D, Harvey K, Howse J, Reardon T, Creswell C. Barriers to managing child and adolescent mental health problems: a systematic review of primary care practitioners' perceptions. Br J Gen Pract. 2016, 66:e693-707.

3. Grover S, Dua D, Chakrabarti S, Avasthi A. Dropout rates and factors associated with dropout from treatment among elderly patients attending the outpatient services of a tertiary care hospital. Indian J Psychiatry. 2018, 60:49–55.

4. O'Brien A, Fahmy R, Singh SP. Disengagement from mental health services. A literature review. Soc Psychiatry Psychiatr Epidemiol 2009, 44:558-568.

5. Johnson E, Mellor D, Brann P. Factors associated with dropout and diagnosis in child and adolescent mental health services. Aust N Z J Psychiatry. 2009, 43:431-437.

6. Kazdin AE, Mazurick JL, & Bass D. Risk for attrition in treatment of antisocial children and families. J Clin Child Psychol. 1993, 22: 2-16.

7. Lai KY, Pang AH, Wong CK, Lum F, Lo MK. Characteristics of dropouts from a child psychiatry clinic in Hong Kong. Soc Psychiatry Psychiatr Epidemiol 1998, 33:45-48.

8. Gould MS, Shaffer D, Kaplan D. The characteristics of dropouts from a child psychiatry clinic. J Am Acad Child Psychiatry 1985, 24:316-328.

9. Cottrell D, Hill P, Walk D, Dearnaley J, Ierotheou A. Factors influencing non- attendance at child psychiatry out- patient appointments. Br J Psychiatry 1988, 152:201-204.

10. Pelkonen M, Marttunen M, Laippala P, Lönnqvist J. Factors associated with early dropout from adolescent psychiatric outpatient treatment. J Am Acad Child Adolesc Psychiatry 2000, 39:329-336.

11. Block AM, Greeno CG. Examining outpatient treatment dropout in adolescents: A literature review. Child Adolesc Soc Work J. 2011, 28:393-420.

12. Garg J, Arun P, Mankotia C. Profile of adolescents who came only once to outpatient psychiatric services. J Mental Health Hum Behav. 2016, 21:125-129.

13. de Haan AM, Boon AE, de Jong JT, Hoeve M, Vermeiren RR. A meta-analytic review on treatment dropout in child and adolescent outpatient mental health care. Clin Psychol Rev. 2013, 33: 698-711.

14. Malhotra S, Biswas S, Sharan P, Grover S. Characteristics of patients visiting the child and adolescent psychiatric clinic; A 26-year study from North India. J Indian Assoc Child Adolesc Ment Health 2007, 3:53-60.

15. Lazaratou H, Vlassopoulos M, Dellatolas G. Factors affecting compliance with treatment in an outpatient child psychiatric practice: A retrospective study in a community mental health centre in Athens. Psychother Psychosomatics. 2000, 69:42-49.

16. Khairkar P, Pathak C, Lakhkar B, Sarode R, Vagha J, Jagzape T, et al. A 5-year hospital prevalence of child and adolescent psychiatric disorders from central India. Indian J Pediatr 2013, 80:826-31.

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