



The Examination of Factors in Dropouts in a Child and Adolescent Psychiatry Out-Patient Clinic

Çocuk ve Ergen Psikiyatrisi Polikliniğinde Tedaviyi Bırakma ile İlişkili Etkenlerin Araştırılması

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ABSTRACT

Aim: Premature termination of ongoing treatment may lead to insufficient or ineffective treatment and enduring symptoms of the disorder. The aim of the study is to examine the relationship between dropout and diagnosis, treatment modality, and socio-demographic characteristics of children.

Material and Method: The sample consisted of 104 patients (aged 10.7±4.4 years), attended to a university hospital child and adolescent psychiatry out-patient clinic. The socio-demographic variables and diagnosis were obtained from the medical files. Analysis were performed in children with externalizing (n:42) and internalizing (n:33) disorders, due to low frequency of other diagnosis.

Results: Vast majority of patients were boys (n=66, 63.5%). The engagement into treatment was found significantly related only with patient age, mean age was higher in those who engaged into treatment (11.90±3.85 and 9.78±5.12 years respectively, p:0.038). Children treated with medication engaged into treatment more than children treated with therapies (p:0.001). Gender, diagnosis, maternal and paternal education levels were not correlated with patient engagement.

Conclusion: Because treatment engagement is necessary to use time and effort labor effectively, protective factors from drop-outs, such as dynamic factors and many other characteristics of patient, family and mental health system continue to be investigated in order to increase treatment engagement.

Keywords: Dropout, psychiatry, treatment, engagement, attrition

ÖZ

Amaç: Tedavinin erken sonlandırılması tedavi etkinliğini azaltırken belirtilerin sürmesine de neden olur. Bu çalışmada tedaviyi bırakma ile tanı, tedavi şekli ve sosyodemografik değişkenler arasındaki ilişkinin araştırılması amaçlanmaktadır.

Gereç ve Yöntem: Bir üniversite hastanesi çocuk ve ergen psikiyatrisi polikliniğine başvuran 104 çocuğun (yaş ort: 10.7±4.4 yıl) dosya bilgileri incelenerek sosyodemografik ve tanı bilgileri elde edilmiştir. Diğer tanıların sıklığı daha az olduğundan tanılar dışa atım (s:42) ve içe atım (s:33) bozuklukları olarak analize dahil edilmiştir.

Bulgular: Örneklemde çoğunluğu erkek katılımcılar (s:66, 63.5%) oluşturmuştur. Tedaviye katılan grubun yaş ortalaması anlamlı olarak yüksek çıkmıştır (11.90±3.85 ve 9.78±5.12 yıl, p:0.038). İlaç başlanan grupta tedavi katılımının daha fazla olduğu saptanmıştır (p:0.001). Cinsiyet, tanı, ebeveyn yaşı ve eğitim durumu ile tedaviye katılım arasında ilişki saptanmamıştır.

Sonuç: Zamanın ve emeğin etkili bir şekilde kullanımı için hastanın/ailenin tedaviye katılımı gereklidir. Tedaviyi erken sonlandırma ile aile, hasta, sağlık sistemi ile ilişkili etkenlerin araştırılması bu etkenlerin düzeltilebilmesini ve tedaviye katılım oranının artmasını sağlayacaktır.

Anahtar Kelimeler: Tedaviyi bırakma, psikiyatri, katılım

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INTRODUCTION

The mental health problems in children and adolescents disrupt the normal development of young people and their transition to adult life. The prevalence of psychiatric disorders in Turkey is estimated to be 37% and 14% of them have severe dysfunction (1). The prevalence range in the USA is 8-28% (2). Although the psychiatric problems challenge the parenting, family and marital harmony, the utilization of mental health services is found to be low. Many factors are related to this: stigmatization, limited mental health knowledge, financial cost, negative past experiences are some of them (3,4). On the other hand some cases terminate ongoing treatment and thus the symptoms of the disorder persist. This premature termination of treatment is called dropout or attrition in the literature, and there is no clear definition of this situation yet (5,6). The most common definition of dropout is that the patient terminates the treatment without the clinician's approval, and discontinues to the last appointments (5). Many factors have been associated with it; socio-demographic characteristics (gender, age, socioeconomic level, family support etc), diagnosis related factors (prognosis, treatment etc) and other factors such as accessibility to mental health clinics are some of them (7,8). Some studies found an association between dropout and poor prognosis (9). Dropout could also impact the clinicians negatively with a sense of failure (10). Therefore it is important to identify these factors in order to use the time and utilize the mental health services effectively, and to promote the mental health of children. The aim of the study is to examine relationship between dropout and diagnosis, treatment modality, and socio-demographic characteristics of children.

MATERIAL AND METHOD

The 6-month follow-up medical files 104 patients who attended to Hacettepe University Hospital child and adolescent psychiatry out-patient clinic for the first time at May 2018 were evaluated retrospectively. To control for bias caused by the patient-clinician therapeutic relationship, we studied only the two authors' patients.

Socio-demographic data and psychiatric examination according to DSM-5 were obtained from their medical files. Patients who could not come again to our hospital due to residing in another province were excluded. Patients who were consulted to other departments for their primary complaints (eg. audiology, pediatric neurology) were also excluded. The engagement into treatment of patients was determined according to the compliance with their appointments. If they did

not come to their two consecutive appointments within the six months of the study period, than they were considered as "drop-out group". The other group was called "engaging group". Mental disorders are categorized into two groups: internalizing and externalizing. The internalizing disorders are characterized by distress directed inwards such as depression and anxiety disorders. The externalizing disorders are characterized by distress directed toward others such as attention deficit hyperactivity disorder (ADHD) and oppositional defiant disorder (ODD) (11).

Data were analyzed by Statistical Package for the Social Sciences (SPSS) 26.0. The groups were compared using the independent samples t-test. The Chi-square and Fisher's exact tests were carried out to examine the difference between the nominal variables.

RESULTS

The files of 104 patients (n:66, 54.5% boys) were included. There were 33 participants in internalizing group (n:16, 48.5% girls), and 42 participants in externalizing group (n:8, 19.0% girls). Five girls had both of them. The other diagnosis were: gender dysphoria (n:1), psychotic disorder (n:2), elimination disorders (n:2), specific learning disorder (n: 7), autism spectrum disorder (n:5), and intellectual disability (n:7). In order to control the bias effect of the disorder on treatment engagement, the analysis was performed only in children with externalizing and internalizing disorders due to low frequency of other diagnosis (**Figure 1**)

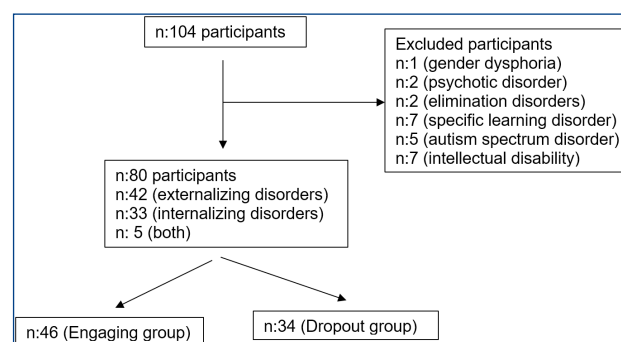


Figure 1. Flow diagram of the study population

The mean age was 11.0 ± 4.53 years (min:2.6 y, max:17.7 y). Forty-six children (57.5%) were in the engaging group. Only age and treatment differed between the two groups. The children in dropout group were younger than the engaging group, and the combined treatment was used more in the engaging group. (**Table 1**)

Although the continuity in girls was higher than in boys, the differences did not statistically significant in terms of number, age and diagnosis. (**Table 2**)

Table 1. Characteristics of participants

	Engaging Group (n:46, 57.5%)	Dropout Group (n:34, 42.5%)	p values
Age (years)	11.90±3.85	9.78±5.12	0.038
Gender			
Girls	20 (43.5%)	9 (26.5%)	0.159
Boys	26 (56.5%)	25 (73.5%)	
Having a chronic illness			
Yes	7 (15.2%)	9 (26.5%)	0.263
No	39 (84.8%)	25 (73.5%)	
Mother's age (years)	39.59±7.24	37.32±6.99	0.168
Mother's education duration			
4 years	12 (27.9%)	11 (32.4%)	0.834
5-8 years	18 (41.9%)	12 (35.3%)	
>8 years (university)	13 (30.2%)	11(32.4%)	
Father's age (years)	43.16±7.19	42.09±9.32	0.570
Father's education duration			
4 years	9 (20.9%)	7 (20.6%)	0.373
5-8 years	14 (32.6%)	16 (47.1%)	
>8 years (university)	20 (46.5%)	11(32.4%)	
Socioeconomic status			
Low	25 (56.8%)	23 (67.6%)	0.617
Middle	17 (38.6%)	10 (29.4%)	
High	2 (4.5%)	1 (2.9%)	
Marriage status			
Married	40 (87.0%)	26 (76.5%)	0.248
Divorced	6 (13.0%)	8 (23.5%)	
Psychiatric disorder in parents			
Yes	8 (17.4%)	8 (23.5%)	0.577
No	38 (82.6%)	26 (76.5%)	
Diagnosis			
Internalizing disorders	21 (45.7%)	12 (35.3%)	0.615
Externalizing disorders	22 (47.8%)	20 (58.8%)	
Both	3 (6.5%)	2 (5.9%)	
Treatment			
Therapy & Psychoeducation	2 (4.3%)	12 (35.3%)	0.001
Medication & Psychoeducation	44 (95.7%)	22 (64.7%)	

Table 2. Characteristics of variables according to gender

	Engaging Group	Dropout Group	p values	
Boys (n:51)	Number (n,%)	26 (51.0%)	25 (49.0%)	
	Age (years)	10.83±3.76	9.39±5.17	0.257
	Diagnosis			
	Internalizing disorders	9 (34.6%)	8 (32.0%)	1.000
	Externalizing disorders	17 (65.4%)	17 (68.0%)	
Both	-	-		
Girls (n:29)	Number (n,%)	20 (69.0%)	9 (31.0%)	
	Age (years)	13.29±3.58	10.90±5.11	0.156
	Diagnosis			
	Internalizing disorders	12 (60.0%)	4 (44.4%)	0.735
	Externalizing disorders	5 (25.0%)	3 (33.3%)	
Both	3 (15.0%)	2 (22.2%)		

DISCUSSION

In this study the socio-demographic factors related to dropout in a child and adolescent clinic were investigated. The rate of dropout in our sample was 42.5%. In literature the range of estimated dropout rate is between 29% and 75% (5,12-14). Methodological differences between studies lead to differences in dropout rates (6).

In this study, age and treatment modality were the ones that differed between the dropout and engaging group. Children in the dropout group were younger than the children in the engaging group. The age effect on dropout is controversial (6). Some studies found that age did not effect the dropout rates (13). Parents' attitudes toward mental health of their children are very important to access mental health services (15). The treatment with adolescents differ from treatment with children as adolescents are more participatory than children during treatment. So studies on dropout are mainly in adolescents (5,14). On the other hand, the externalizing and internalizing disorders become more obvious in the school. Therefore, parents of school-aged children could be more willing to remain under psychiatric follow-up.

Treatment modality was the other variable that differed between the two groups. Therapeutic alliance is the most consistent result in the studies (6). We controlled the effect of therapeutic relationship between the therapist and the patient/family by examining only the two clinicians' patients. Psychoeducation is the main part of the psychiatric treatment and in our hospital it is combined with therapies especially in preschool children. The families are expected to actively participate in treatment, especially when their children are at preschool and school age. Medication could be started according to the child's diagnosis. The engagement of the children/families with medication could be related to the benefit from the medication, or the dropout in the families treated with therapy and psychoeducation may be due to the difficulties that families/ individuals experience in changing their attitudes during the therapies.

Other socio-demographic variables (etc. parents age, education status, marital status) did not differ between the two groups. This is consistent with the literature (6,13). On the other hand, it should be kept in mind that the relationship between dropout and socio-demographic variables depends on the sample and the design of the study, since socio-demographic factors can be defined differently. Some studies have revealed that low socioeconomic status negatively affects the continuity of treatment in children from minority ethnic backgrounds (5,16). Communication conditions with mental health care providers, such as location of the mental health service and an inflexible appointment system, may also negatively affect the engagement into treatment (15).

In our study, diagnosis did not differ between the two groups. In a systematic review the relationship between diagnosis and adherence was found nonsignificant (17). Conversely, externalizing disorders have been found to be related to dropout in some studies (6,13,18), while dropout in children with internalizing disorders seems worth investigating (14,19,20). Dropout predicts negative prognosis especially in externalizing disorders (21), so to overcome these barriers are essential to promote mental health services of children (22,23).



CONCLUSION

To the best of our knowledge, this is the second study on dropout in child and adolescent psychiatry in our country. The strength of this study is that the authors examined their patients with internalizing and externalizing disorders, controlling for bias in the clinician-patient therapeutic relationship and heterogeneity of disorders. However, this study has few limitations. First, our hospital is one of the biggest university hospitals in Turkey, which may lead to bias in the results. Second, small sample size in each category could reduce power to detect an effect. Third, we did not know whether the children in the dropout group went to another child and adolescent department.

Treatment engagement is necessary to use time and effort labor effectively. Factors related to engagement into treatment are similar to good prognostic factors. Prospective studies with homogeneous groups in different diagnosis will provide more information to increase treatment engagement.

ETHICAL DECLARATIONS

Ethics Committee Approval: The study was approved by Hacettepe University Health Sciences Research Ethics Committee (Institutional Review Board number: 2023/02-30).

Informed Consent: Because the study was designed retrospectively, no written informed consent form was obtained from the participants.

Referee Evaluation Process: Externally peer-reviewed.

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

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