

Anxiety, Aggression and Self-Esteem Analysis through Pictures in Children with Cancer*

Kanserli Çocukların Anksiyete, Agresyon ve Benlik Saygısının Resim Yoluyla Analizi

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ABSTRACT

Aim: The primary purpose of this study is to identify a cancer patient's anxiety, aggression and self esteem etc., feelings that might arise from hospitalization, through "home" themed drawing of the children. The second aim of this research is to make sure that the drawing method is used by pediatric nurses when collecting data from children.

Method: The study was conducted as a case-control study at pediatric hematology and oncology clinics of a university hospital between February-June 2010. 19 children between the ages of 4-7, having primary diagnosis of cancer, treated with chemotherapy, and 20 healthy children at the same age group with similar socio-demographic characteristics who had never been hospitalized before, total 39 children were included for the sampling of the study. Children were given drawing paper and 12 color crayons and asked to draw whatever comes to their mind when they think of the word "home". A lecturer from Department of Preschool Education and a researcher educated on drawing analysis interpreted the drawings of children. Comments on the pictures were divided into 4 as the following; anxiety, aggression, self-esteem, color choice.

Results: No statistically significant difference was found between the groups divided in accordance with age, sex, and income status. When drawings of children with cancer and healthy children were reviewed; it was determined that anxiety and aggression of the children with cancer and subjected to long periods of treatment were higher than healthy children of the same age group and that there are statistical differences between the groups. When the sick and healthy groups are compared in terms of self esteem, it is striking that self-esteem of the children with cancer was low.

Conclusion: Various methods assessing the feelings of children, such as anxiety, aggression, are being used recently for several studies. Although it is not a method frequently preferred, we can understand feelings, emotional status of children by looking at their drawings. Drawing is like a game for the children. It is a method where they can clearly express themselves. When we review these results, we see that it is possible to evaluate emotional status of children and the application is easy, enjoyable.

Key Words: Cancer, child, home concept, drawing.

ÖZ

Amaç: Araştırmanın öncelikli amacı, kanserli çocuklarda hastaneye yatmaya bağlı oluşabilecek anksiyete, agresyon ve benlik saygısı gibi duygularını çocuklara "ev" hakkında resim çizdirerek değerlendirmektir. Araştırmanın ikinci amacı pediatri hemşireleri tarafından çocuklardan veri toplarken resim çizme yönteminin kullanımını sağlamaktır.

Yöntem: Araştırma Şubat-Haziran 2010 tarihleri arasında bir üniversite hastanesinin çocuk hematoloji ve onkoloji kliniğinde vaka-kontrol çalışması olarak gerçekleştirildi. Araştırmanın örneklemini 4-7 yaş arası primer tanısı kanser olan ve kemoterapi tedavisi gören 19 kanserli çocuk ve aynı yaş grubundan, sosyo-demografik özellikleri benzer olan ve daha önce hastaneye yatmamış 20 sağlıklı çocuk olmak üzere, toplam 39 çocuk oluşturmuştur. Çocuklara resim kâğıdı ve 12 renk kuru boya kalemi verilerek "ev" deyince akıllarına gelen ilk şeyi çizmeleri istenmiştir. Çocukların çizdikleri resimler bir okul öncesi eğitim bölümü öğretimi üyesi ile resim incelemesi eğitimi almış bir araştırmacı tarafından yorumlanmıştır. Resimlerin yorumları anksiyete, agresyon, benlik saygısı ve renk seçimi olmak üzere 4 maddeye ayrılmıştır.

Bulgular: Yaş, cinsiyet, gelir durumu özelliklerine göre gruplar arasında istatistiksel olarak anlamlı fark bulunmadı. Kanserli çocuklar ve sağlıklı çocukların resimleri incelendiğinde; kanser hastası olan ve uzun süren tedavi sürecine maruz kalan çocukların anksiyetesinin ve agresyonunun aynı yaş grubundaki sağlıklı çocuklara oranla yüksek olduğu ve aralarında istatistiksel farklılık olduğu görülmektedir. Benlik saygısı açısından hasta ve sağlıklı grup karşılaştırıldığında hasta olan çocukların benlik saygısının düşük olduğu göze çarpmaktadır.

Sonuç: Son yıllarda yapılan birçok çalışmada, çocukların anksiyete, agresyon gibi duygu durumlarını değerlendiren farklı yöntemler kullanılmaktadır. Sıklıkla tercih edilen bir yöntem olmamasına rağmen çocuklara resim çizdirerek de onların duygularını, içinde buldukları duygu durumu anlayabiliriz. Resim çizmek, bir çocuk için oyun gibidir. Net olarak kendilerini ifade edebilecekleri bir yöntemdir. Bu çalışma sonuçlarına bakıldığında da çocukların duygu durumlarının resimlerini inceleyerek değerlendirilebildiği ve uygulamanın da kolay ve zevkli olduğu görülmektedir.

Anahtar Kelimeler: Kanser, çocuk, ev kavramı, resim.

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INTRODUCTION

Hospitalization is a frightening, uncomfortable, and unpleasant experience for children. In particular, children hospitalized for reasons such as cancer undergo long-term painful invasive interventions. The child may feel isolated and left in an awkward position because they are separated from their family and play mates. This is why some children with cancer may find it hard to verbal express their feelings (Çakıroğlu 1991; O'Conner-Von 2000; Şen Beytut, Bolşık, Solak and Seyfioğlu 2009).

We suggest that drawing; a projective method is used for children, who find it a lot more difficult to verbally express their feelings compared to adults, to express their feelings (Kırışoğlu 2002). The fact that children love to draw makes using this technique easier (Yavuzer 2005).

Drawings are accepted as an indicator of how a child perceives the world around them (Yavuzer 2003; Yavuzer 2007). As well as being a measure that allows us to understand the child in terms of psycho-pedagogic, drawings also play an important role as a means of expression to reflect a child's inner world. A pre-schema child aged between 4 and 7 interprets a part of them, their feelings, thoughts, and views relating to events through drawings. Drawing is an example of a dynamic activity and a plain expression instrument for a child (Yavuzer 2005; Yavuzer 2007).

Nurses can also use the drawing method, like all health professionals working with the hospitalized child, when communicating with the child. Limited information is available regarding the reason why the child is ill or hospitalized, and they might be afraid to ask. As children between the age of 4 and 7 do not know all the details regarding their illness, they may fill their heads with various fantasies (Çavuşoğlu 2007). Drawing, a projective technique, is a method frequently used by staff working in pediatric and psychiatry clinics in order to make sense of children's

feelings and perceptions (Johnson 1990). However, in our country, the method is not common practice in pediatric clinics and studies that assess the pain and emotional status (anxiety) of children. In general, psychologists and psychiatrists use it as a method that supports diagnosis.

The primary purpose of this study is to identify a cancer patient's anxiety, aggression and self esteem etc., feelings that might arise from hospitalization, through "home" themed drawing of the children. The second aim of this research is to make sure that the drawing method is used by pediatric nurses when collecting data from children.

METHOD

Study Design

We conducted as case-control study design at the Pediatric Oncology Clinic of a University Hospital in Turkey between February and June 2010. Thirty-nine children were enrolled in this study: 19 in the children with cancer, 20 in the healthy children.

Participants

Between the dates of this study, all children who were admitted to the Pediatric Oncology Clinic, healthy children that had never been hospitalized and came to the family health center for any reason (to vaccinate their children, to be examined, etc.), and who accepted the study conditions were included in the research.

The eligibility criteria were: (1) being registered with a primary diagnosis of cancer in the pediatric oncology clinic; (2) ranging in age from 4-7 years, (3) able to read and understand Turkish (both children and their parents), (4) no history of psychiatric illness. Information regarding the children's age, gender, diagnosis, and treatment was obtained from hospital files and the doctors at the Pediatric Oncology Clinic.

7 girls and 12 boys diagnosed with cancer, and 7 healthy girls and 13 healthy boys with similar socio-demographic characteristics that had never been hospitalized were included in the study. The children came usually from the middle socioeconomic strata. The economic strata of the children were described as income more than expenditure (high), income equal expenditure (middle), or income less than expenditure (lower) using self-report by the mothers.

Socio-demographic data was obtained via face to face interviews conducted with the children and their mothers. Children were given drawing paper, 12 colored crayons, a rubber, and asked to draw the first thing that came into their minds. The children’s drawings were interpreted by a painter, a preschool education lecturer, and a researcher that had received painting analysis training. Characteristics such as the magnitude of lines, the level of exaggeration, the shape, the usage of bright colors were taken into consideration when analyzing the drawings. The drawings were interpreted based on the 4 points stated below (Table 1).

The aspects considered in children’s drawings are style of using the paper, horizontal or vertical use of paper, whether the paper is used fully or partially, the position of figures in the picture, whether or not the children draws himself/herself close to the home or family members, style of drawing home and choice of collars, whether or not there is sky or ground on the picture. Frequent of use bright colors indicate the child’s positive attitude towards life. Yellow is a color frequently used for happy pictures and sad pictures are often brown-dominated. Intense use of red indicates that anger of a child and illustrates aggressiveness. Children preferring bright colors such as pink, yellow, orange are kind and agreeable. Children using dull colors such as black, blue, green and brown represent children who suppress their feelings and are disagreeable. The study considered whether a child intensely uses bright colors or dull colors and the pictu-

res are reviewed as “Bright” or “Dull” pictures. It is determined that a child drawing himself, herself very small in comparison to other family members is indicates lower self esteem; coloring smokes coming out of the house’s roof and chimney mainly in red and black indicate suppressed anxiety and aggression and also unfinished lines and large picture covering the entire page, trees and other objects drawn as doodles and in a rush indicate anxiety and aggression.

A nurse gave a drawing paper and 12-color crayons to children who were eligible for the study criteria and participated to the study. The children were told to draw about their “homes” and family. A lecturer from Department of Preschool Education and a researcher educated on drawing analysis reviewed all the drawings according to the established criteria.

Table 1. The Interpretation Points Used for the Pictures

Anxiety		Aggression		Self Esteem		Color Choice	
Yes	No	Yes	No	Low	High	Warm	Cold

Data Analysis

Data was coded and assessed using a PASW 18.0 package program. Percentage distributions and arithmetic mean ± standard deviation were used to assess data. The chi square test was used to compare ill and healthy children.

Ethics

Permission was obtained from the Department of Pediatrics Hematology-Oncology Clinic of the hospital prior to conducting the study. Verbal permission was obtained from every participating child and their mother. The children and their mother were given information regarding the study, and informed that they had the right not to participate or leave the study at any stage.

RESULTS

For the study, the average age of minor cancer patients was 4.42±2.06 years, and the average age for child-

ren that had never been hospitalized was 4.75±1.77. 63.2% of the children in the cancer patient group were boys, and 65.0% of the children in the healthy group were boys. No statistically significant difference was determined between groups based on age, gender, or income state (Table 2).

When the drawings of healthy children and children with cancer were analyzed in this study, the level of anxiety and aggression was higher for children suffering from cancer and receiving treatment for long term in comparison to other children in the same age group; the level of self-esteem was lower for children suffering from cancer and receiving treatment for long term in comparison to other children in the same age group; there was a statistically significant difference between the two groups.

Table 3. The Distribution of Interpretations regarding the Pictures Drawn by Children.

	Children with Cancer		Healthy Children		χ^2, p
	n	%	n	%	

Table 2. Distribution of Socio-Demographic Characteristics

	Children with Cancer		Healthy Children		X^2, p
	n	%	n	%	
Age (years) mean±SD	4.42±2.06		4.75±1.77		
	n	%	n	%	
Gender					
Girl	7	36.8	7	35.0	$X^2=0.014$ $p=.805$
Boy	12	63.2	13	65.0	
Income Status					
Good	1	5.3	2	10.0	$X^2=0.439$ $p=.803$
Moderate	12	63.2	13	65.0	
Bad	6	31.6	5	25.0	
Domicile					
Rural	14	73.7	13	65.0	$X^2=0.345$ $p=.557$
Urban	5	26.3	7	35.0	
Total	19	100.0	20	100.0	

Anxiety					
Yes	18	94.7	5	25.0	$\chi^2=19.585$ $p=0.000$
No	1	5.3	15	75.0	
Aggression					
Yes	16	84.2	7	35.0	$\chi^2=9.753$ $p=0.002$
No	3	15.8	13	65.0	
Self Esteem					
Low	11	57.9	2	10.0	$\chi^2=10.058$ $p=0.002$
High	8	42.1	18	90.0	
Color Choice					
Hot	13	68.4	18	90.0	$\chi^2=2.783$ $p=0.095$
Cold	6	31.6	2	10.0	
Total	19	100.0	20	100.0	

DISCUSSION

Drawing is much more effective than verbal expression in translating the feelings of children. As well as telling us how children think, drawings reflect the issues children are experiencing with other children and adults, and provide hints regarding ways to resolve the issues (Çoşkun 2003; Vatanserver 2008; Yavuzer 2005). Gross and Hayes indicate that drawing increases the communication skills and emotions of children, and that children asked to draw express a lot more in comparison to other children (Stuyck 2003). Kırkan (1994) observed that children reflected family related issues in their drawings in the study titled “family according to the child’s drawing”. Tarakçı (2001) states that 40% of children think of themselves as small, unimportant, captive, suffering, helpless, alone, incurable, unaided, insecure, and unable to fit in and communicate in hospital.

The study proves that children with chronic diseases use a lot more red and yellow in their drawings, and display significant signs of anxiety. Abdi, Jalili, Tavakoli and Naderpour (2004) indicated that children with a high level of anxiety used the color red a lot more in their drawings and pressed down a lot more when coloring. This study reviewed the drawings of children

with cancer and healthy children and concluded that there is not any statistically significant difference between those in terms of color selection. This result supports the results of our study.

The level of aggression in the drawings was higher for children with chronic diseases in comparison to healthy children; it is thought that children hospitalized with chronic diseases experience intense anger. Another side of the drawing is that children are relieved of their aggression when drawing. As well as expressing their feelings, children are also relieved of their feelings when drawing. The aggression in the drawings can be identified from excessive scribbling, pressed partial lines, large drawings that fill the entire page, and teeth drawings (Dizman, Gültekin and Akyol 2005; Saydam 2004). The majority of the pictures drawn by the minor cancer patients participating in the study included incomplete lines, which indicates aggression in children.

Self esteem is a state in which the individual does not see themselves as inadequate, or superior, but content with how they are (Yörükoğlu 2003). Erikson argued that concept of self-esteem varied according to conditions during certain periods of life (Barut and Ayyıldız 2005). It can be affected by many different factors such as the child's family background, the education level, occupations, and economic status of the child's parents (Dizman, Gültekin and Akyol 2005). In addition to the factors listed, the self esteem of children with chronic diseases may differ according to how the child copes with their disease. Drawing makes expressing feelings for children easier, and provides some hints regarding the child's personality, such as self esteem. Results of previous studies also support this view (Abdi et al. 2004; Dizman et al. 2005; Niolon 2004). Children not drawing themselves in the picture, drawing themselves smaller in comparison to other figures indicate low self esteem whereas drawing a head smaller for the large body and drawing hands-

feet-neck-nose-eyes indicate self respect and self esteem. A study conducted by Türkbay, Akın and Sökmen (2000) which compared the self esteem of healthy children and children with epilepsy receiving regular treatment, indicated that there was a significant difference between the self esteem of both groups. This result is similar to that found in our study.

It is highly difficult to comprehend inner world of a child. However the children consciously or unconsciously give certain clues to express that world. Drawing is the most of important one of those clues. Drawing is a disclosure of the complex inner world, which is to be organized by the children and is a method of self-expression. The style of using the paper, the composition in the picture and colors used are important for us. Because children feel like they are in a "free game environment" while drawing and reflect their feelings, thoughts. Drawing, a simple way of expressing feelings and thoughts about events, reflecting one self, has a highly significant role in this sense. Different tools are used to understand the children, identify their emotional status if there are difficulties in establishing verbal communication. It is difficult to evaluate such tools and these might lead to individual differences in assessment, unconscious partiality of the researcher. Using drawing method to understand feelings of children, which cannot be expressed, offers an advantage and ease to the health care personnel.

CONCLUSION

Freud says "A child's drawings are highly under the influence of subconscious desires and fears". The expression of these desires can be symbolical or hidden. In some drawings a child might describe not the object itself but more or less its symbolic nature. Drawings are reflections of structural type, character as well as complete set of characteristics including experiences from the past and present. Analysis of a picture manifests itself in the style of using the space, each object drawn. Searching for a meaning beyond the

contents means discovering the underlying symbols. Children with cancer are obliged to stay at the hospital for treatment purposes that might take months. A hospitalized child might resist when it comes to verbal communication. Being away from families, homes and friends for such a long time and long, painful treatment process might lead to anxiety and aggression feelings. Invasive methods used for treatment (lumbar puncture, bone marrow aspiration, placing a port etc) might impair a child's self esteem. When we review the results of the study we see that anxiety and aggression of children with cancer are higher than the healthy children of the same age group whereas self esteem is lower. Although the study concluded that there is not any difference between two groups in terms of color selection, sick children with anxiety and aggression problems use colors such as brown, black and red intensely. Despite the fact that it is not a commonly preferred method, we can understand feelings, emotional status of children by reviewing their drawings. When we review the results of this study, we see that emotional status of children was analyzed by reviewing the drawings and the practice is easy, enjoyable.

In Turkey, publications are available that provide information regarding drawings drawn during the clinic assessment process; however, there are no survey studies that state the frequency of the drawings and why the drawings were drawn. Consultation liaison psychiatry shows an interest in the subject and uses the method in their studies; however, the method is not used as a part of the treatment and care process. Nurses working in clinics and other health professionals should be trained to interpret children's drawings, and use the drawing method to identify the pain, anxiety, and other emotional statuses of children as children like drawing, and the materials needed are inexpensive and easy to find. In other studies, this method is suggested to reach net evidence by being compared to objective assessment criteria.

The Limitations of the Study

The fact that only children receiving cancer treatment were included in the study group limited the amount of data obtained. Another limitation was that only pre-schema children were included in the study.

REFERENCES

- Abdi, S., Jalili, B., Tavakoli, H., Naderpour, M. (2004). Emotional changes in children undergoing cochlear implantation though evaluation of their drawings. *Iran J Med Sci*, 29: 62-66.
- Barut, Y., Ayyıldız, A. (2005). İlköğretim okulu öğrencilerinin özkavram düzeylerinin çeşitli değişkenlere göre karşılaştırılması, <http://www.pdrhizmetleri.com/pdr-yayinlari-kongre-ve-faaliyetler/18110-ilkogretim-ogrencileri-oz-kavrami-duzeyleri-cesitli-degiskenlere-gore-karsilastirilma.html> (27.02.2009).
- Çakıroğlu, S. (1991). Pediatrik onkoloji kliniklerinde oyunun önemi. *Hemşirelik Bülteni*, 5: 7-11.
- Çavuşoğlu, H. (2007). Çocuk Sağlığı Hemşireliği, Bizim Büro Basımevi, Ankara.
- Coşkun, B. (2003). Çocuk Resminde Yakın Çevre. Yayınlanmamış Yüksek Lisans Tezi, Marmara Üniversitesi Sağlık Bilimleri Enstitüsü, İstanbul.
- Dizman, H., Gültekin, G., Akyol, A. (2005). Çocukları tanımda resimlerin önemi. *Adli Psikiyatri Dergisi*, 2: 23-30.
- Johnson, B. H. (1990). Children's drawings as a projective technique. *Pediatric Nursing*, 16: 11-16.
- Kırıoğlu, O. T. (2002). Sanatta Eğitim Görmek, Öğrenmek, Yaratmak. 2. baskı, Baran Ofset, Ankara.
- Kırkan, U. (1994). Çocuk Resminde Aile. Yayınlanmamış Yüksek Lisans Tezi, Marmara Üniversitesi Sağlık Bilimleri Enstitüsü, İstanbul.
- Niolon, R. (2004). Notes on projective drawings, http://www.psychpage.com/projective/proj_draw_notes.html (27.10.2009).
- O'Conner-Von, S. (2000). Preparing children for surgery: An integrative research review. *AORN Journal*, 71: 334-343.
- Saydam, R. B. (2004). Çocuk çizimlerinin klinik değerlendirmedeki yeri. *Yansıtma, Psikopatoloji ve Projektif Testler Dergisi*, 1: 111-124.
- Şen Beytut, D., Bolışık, B., Solak, U., Seyfioglu, U. (2009). Çocuklarda hastaneye yatma etkilerinin projektif yöntem olan resim çizme yoluyla incelenmesi. *Maltepe Üniversitesi Hemşirelik Bilim ve Sanatı Dergisi*, 2(36): 35-44.
- Stuyck, K. (2003). Art therapy helps children affected by cancer express their emotions. *Oncology*, 48: 1-4.

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Tarakçı, S. (2001). İlk kez hastaneye yatan okul çağı çocukların hemşireyi algılayışları. Marmara Üniversitesi Sağlık Bilimleri Enstitüsü, İstanbul.

Türkbay, T., Akın, R., Sökmen, T. (2000). Epileptik çocuklarda dikkat eksikliği hiperaktivite bozukluğu, davranım bozukluğu, depresif belirtiler ve kendilik saygısının araştırılması. Klinik Psikofarmakoloji Bülteni, 10: 9-16.

Vatansever, N. (2008). Çocuk cerrahisi'nde ameliyat olan 8-12 yaş grubu çocukların hastane ortamı ve operasyondan etkilenme

durumlarının belirlenmesi. Marmara Üniversitesi Sağlık Bilimleri Enstitüsü, İstanbul.

Yavuzer, H. (2003). Çocuk Psikolojisi. 25. basım, Remzi Kitabevi, İstanbul.

Yavuzer, H. (2005). Resimleriyle Çocuk. Remzi Kitabevi, İstanbul.

Yavuzer, H. (2007). Resimleriyle Çocuk: Resimleriyle Çocuğu Tanıma. 12. basım, Remzi Kitabevi, İstanbul.

Yörükoğlu, A. (2003). Çocuk Ruh Sağlığı. Özgür Yayınları, İstanbul.