ORİJİNAL ARAŞTIRMA ORIGINAL RESEARCH

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Evaluating the Anxiety Levels of Parents of Children Undergoing Day Orthopedic Surgery: Descriptive Research

Günübirlik Ortopedik Cerrahi Geçirecek Çocukların Ebeveynlerinin Anksiyete Düzeylerinin Değerlendirilmesi: Tanımlayıcı Araştırma

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This study was prepared based on the findings of Şeyma Nur SERT's master thesis study titled "Evaluating the Anxiety Levels of Parents of Children Undergoing Day Orthopedic Surgery: Descriptive Research" (İstanbul: Bezmiâlem Vakıf University; 2019).
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ABSTRACT Objective: This study was planned for the purpose of evaluating the anxiety levels of parents with children who would be undergoing a day surgical intervention. **Material and Methods:** Designed as descriptive research, the universe of the study comprised the parents of children who had presented at the orthopedics and traumatology clinic of a training and research hospital in İstanbul for day orthopedic surgery. The sample constituted 91 parents who agreed to participate in the study. Data were collected with a Child and Parent Information Questionnaire and the State-Trait Anxiety Inventory. **Results:** It was found that 51.6% of the parents were 35 years of age and below, 59.3% of them were mothers and 28.6% of children were between 12-15 years of age, 75.8% of them were attending school and 31.9% of them were educated in high school. The mean scores of the parents on State-Trait Anxiety Scale were 54.62±8.65, 43.09±6.99, respectively. The mean scores of mothers' State Anxiety Scale were found to be higher than the mean scores of fathers ($p<0.01$). State-Trait Anxiety scores of the parents who were informed about anesthesia were found to be higher than those of parents who were not informed ($p<0.01$). **Conclusion:** The parents' State and Trait Inventory scores indicated that they were experiencing a moderate level of anxiety. There were certain individual factors that affected their anxiety levels prior to the orthopedic surgery. It can be recommended that nurses plan to provide education to parents with children undergoing day orthopedic surgery for the purpose of reducing levels of anxiety.

Keywords: Day surgery; orthopedics and traumatology; child; parent; anxiety

ÖZET Amaç: Bu çalışma, çocuğu günübirlik cerrahi girişim geçirecek olan ebeveynlerin kaygı düzeylerini değerlendirmek amacıyla planlandı. **Gereç ve Yöntemler:** Tanımlayıcı ve ilişki arayıcı türde gerçekleştirilen araştırmanın evrenini, İstanbul'da bir eğitim ve araştırma hastanesinin ortopedi ve travmatoloji kliniğine günübirlik ortopedik cerrahi girişim nedeniyle başvuran çocukların ebeveynleri oluşturdu. Örneklemini ise çalışmaya katılmayı kabul eden 91 ebeveyn oluşturdu. Veriler; Çocuk ve Ebeveyn Bilgi Formu, Durumluk-Sürekli Kaygı Ölçeği ile toplandı. **Bulgular:** Ebeveynlerin %51,6'sının 35 yaş ve altında, %59,3'ünün anne olduğu, çocukların ise %28,6'sının 12-15 yaş arasında olduğu, %75,8'inin okula gittiği ve %31,9'unun lisede eğitim gördüğü belirlendi. Ebeveynlerin Durumluk ve Sürekli Kaygı Ölçeği'nden aldıkları puan ortalamaları sırasıyla 54,62±8,65, 43,09±6,99 olduğu belirlendi. Annelerin Sürekli Kaygı puan ortalamalarının, babaların Sürekli Kaygı puan ortalamalarından yüksek olduğu saptandı ($p<0,01$). Anestezi hakkında bilgilendirilen ebeveynlerin Durumluk Kaygı puan ortalamaları, bilgilendirilmeyen ebeveynlerin Durumluk Kaygı puan ortalamalarından yüksek olduğu belirlendi ($p<0,01$). **Sonuç:** Ebeveynlerin Durumluk ve Sürekli Kaygı puan ortalamalarına göre orta düzeyde anksiyete deneyimledikleri ve günübirlik ortopedik cerrahi girişim öncesinde anksiyete düzeylerini etkileyen bazı bireysel faktörler olduğu saptandı. Bu doğrultuda, hemşirelerin günübirlik ortopedik cerrahi girişim uygulanacak çocukların ebeveynlerinin anksiyete düzeylerini azaltmaya yönelik eğitimlerin planlaması önerilebilir.

Anahtar Kelimeler: Günübirlik cerrahi girişim; ortopedi ve travmatoloji; çocuk; ebeveyn; anksiyete

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Surgical interventions are widely carried out on a day basis for diagnosis, reconstruction, palliative and aesthetic purposes and in many different clinical situations, as elective or emergency interventions.[1] As one of these procedures, day surgical interventions are a type of approach that has been commonly preferred that does not require a hospitalization.[2,3] Because children usually have a better medical situation than adults, day surgical interventions are procedures that are frequently used for this population.[4,5]

Among the advantages of day orthopedic surgical interventions in terms of a child and the parents are a shorter waiting period, a faster release from the hospital, early mobilization and day discharge, less interference with daily life activities, a shorter time away from family, less risk of having to postpone the surgical intervention, reduced risk of complications related to long hospital stays, and increased patient satisfaction.[6] Although there are many advantages of day surgical interventions, there are some disadvantages as well.

Orthopedic day surgery is a potentially stressful and threatening experience for children and their parents. Children and their parents indeed experience anxiety when they find themselves in a situation that deviates from the ordinary norm of their daily life, making it necessary for them to adjust to new, unfamiliar, different and uncertain situations.[7] Nurses must identify the factors causing anxiety and determine the levels of anxiety that arise before and after day orthopedic surgical interventions, plan the best and most suitable techniques of providing help, while at the same time assessing the outcomes of nursing care.[8] It was conducted to determine the anxiety levels of the parents of children undergoing day orthopedic surgery in the orthopedics and traumatology department. The research questions are as follows:

1. What are the individual characteristics of children about to undergo a day orthopedic intervention and of their parents?

2. What are the anxiety levels of children about to undergo a day orthopedic intervention and of their parents?

3. What are the factors that influence the anxiety levels of children about to undergo a day orthopedic intervention and of their parents?

MATERIAL AND METHODS

TYPE OF RESEARCH

It is a descriptive type of research.

The Research Population and Sample Selection: It consisted of the children presenting at the Orthopedics and Traumatology Clinic of the Republic of Türkiye Ministry of Health, Health Sciences University, İstanbul Training and Research Hospital together with their parents for a day orthopedic surgical intervention. The power analysis using the G*power 3.1.9.2 program (G*power software in Dusseldorf Germany) yielded a power of 80%, a 5% margin of error and an effect size of d=0.60; a minimum of 90 was found as the sample requirement. 91 parents who met the sample selection criteria on the basis of the probability sampling method with random sampling were recruited into the study group. The selection criteria were; children to be taken into the study, the child's being accompanied by parents, not having experienced any prior surgical intervention, the procedure being an emergency or elective intervention, the parents not having any barrier to verbal communication, and being willing to volunteer to participate in the study.

DATA COLLECTION TOOLS

Child and Parent Information Questionnaire: It drawn up by the researcher on the basis of the literature consists of two sections.[4,6,7] The first section comprises 16 questions on sociodemographic characteristics. In the second section, there are 7 questions on the child's medical diagnosis and knowledge of this diagnosis, the duration of the illness, the way in which the illness has affected the family, previous experience with hospitals and surgical interventions, fear of anesthesia as a trigger for anxiety, the fear of feeling pain after surgery and other issues related to day orthopedic surgery.

State-Trait Anxiety Inventory: It is a four-point Likert-type of scale made up of 20 items and State-Trait Anxiety subscales. The lowest possible score on the scale is 20; the highest is 80. The higher the score, the higher the level of anxiety and the lower the score, the lower the level of anxiety.[9] The State Anxiety In-

ventory is designed to assess how a person feels at any determined time under determined conditions. The Trait Anxiety Inventory is designed to assess how a person feels independent of the situation and conditions the individual is experiencing. The State-Trait Anxiety Inventory is used to assess the anxiety levels of individuals of the age of 14 and over. The State-Trait Anxiety Inventory was thus used in this study to assess the state-trait anxiety levels of the parents, all over the age of 14, of the children included in the research. The Turkish adaptation of the inventory has reported alpha reliability correlations 0.94-0.96 for the State Anxiety Inventory and 0.83-0.87 for the Trait Anxiety Inventory.[9] In this study, Cronbach's alpha for the parents on the State Anxiety Inventory was 0.89 and 0.80 for the Trait Anxiety Inventory.

DATA COLLECTION PROCESS

After the children who were admitted to the orthopedics and traumatology clinic for day surgery were orientated to the clinic, the parents of the children who met the criteria for inclusion in the study were determined in the patient room. Parents who were eligible for the study were informed about the purpose, content and method of the study, and a sample group was formed by obtaining written permission from those who voluntarily agreed to participate in the study. The data were filled in face to face by the researcher, using the Child and Parent Information Questionnaire and the State-Trait Anxiety Inventory in a quiet environment (patient room) one day before the day-to-day orthopedic surgery by the researcher, in time periods that would not affect the care and treatment of the children.

ETHICAL CONSIDERATIONS

This study was conducted in compliance with the principles of the Helsinki Declaration permission from the institution was obtained for the conduct of the research (date: November 8, 2018; number: 6808) and approval was acquired from the Clinical Research Ethics Committee (date: June 22, 2018; number: 1320). Participation in the study was based on volunteerism and the group of parents comprising the sample were first informed about the purpose of the study and what was expected of them, after which their verbal consent was obtained.

STATISTICAL ANALYSIS

The IBM SPSS Statistics 22 (IBM SPSS, Türkiye) program was used for the statistical analysis of the study findings. Normality of distribution of the measurement data was evaluated with the Kolmogorov-Smirnov test. In this study, the normality distribution result was determined as -0.63177. Descriptive statistical methods were used in the evaluation of the data as well as the Student t-test for the inter-group analysis of quantitative data. The one-way analysis of variance was employed in the analysis of more than two groups of quantitative data. The testing of the homogeneity of variances was carried out with the Levene test. Significance was accepted as $p<0.05$.

RESULTS

INDIVIDUAL CHARACTERISTICS OF THE CHILDREN AND OF THEIR PARENTS

In the examination of the individual characteristics of the parents in the study, it was found that 59.3% comprised mothers, 51.6% were 35 years of age or younger, 94.5% were married.

It was determinde that 48.4% had a high school education, 41.6% were housewives, 54.9% were employed, 68.1% had income equal to their expenditure, 85.7% lived in a nuclear family. Also parents' 57.1% had 2 children, 94.5% knew their child's diagnosis, 93.4% had social security, 56% had never had experience with a hospital before, 54.9% did not have caregiving duties at home, and 54.9% had not gone through a stressful time recently. Of the parents, 56% were most afraid that their child would experience pain during the orthopedic surgery and 64.8% were anxious that their child would suffer from nausea and vomiting after discharge, and they would not be able to control this at home. Of the parents, 89% had been informed about day orthopedic surgical interventions and 80.2% about anesthesia; 67% said they had been informed by the surgeon and 85.7% said they found the information given to them about the intervention sufficient (Table 1).

TABLE 1: Emotions experienced by parents regarding day orthopedic surgery and their becoming informed about the procedure beforehand (n=91).

		n	%
Most commonly experienced fears prior to the surgery	Anesthesia-related fear	16	17.6
	Fear of feeling pain	51	56.0
	Fear of surgery	24	26.4
	Other	6	6.6
Reasons for experiencing anxiety*	Not being sufficiently informed about the surgery	46	50.5
	Chance of having unsuccessful surgery	6	6.6
	Not awaking after surgery	22	24.2
	Chance of complications after surgery	18	19.8
	Not being sufficiently informed about care at home	5	5.5
	Not being able to control pain at home	52	57.1
	Not being able to control nausea and vomiting at home	59	64.8
	Other	5	5.5
Being informed about the surgical procedure	Yes	81	89.00
	No	10	11.00
Being informed about the anesthesia	Yes	73	80.2
	No	18	19.8
Members of the healthcare team who provide the information about the surgery*	Doctor	61	67.0
	Anesthesiologist	20	22.0
	Nurse	17	18.7
	Other	14	15.4
Finding the information sufficient	Yes	78	85.7
	No	13	14.3

*More than one choice was marked.

ANXIETY LEVELS OF THE PARENTS OF CHILDREN

The mean score of the parents on the State Anxiety Inventory was 54.62±8.65 (minimum-maximum: 30-75) and 43.09±6.99 (minimum-maximum: 29-61) on the Trait Anxiety Inventory (Table 2).

TABLE 2: Distribution of parents' State-Trait Anxiety Inventory scores (n=91).

Inventories	Minimum-maximum	$\bar{X}$±SD
State Anxiety Inventory	30-75	54.62±8.65
Trait Anxiety Inventory	29-61	43.09±6.99

SD: Standard deviation.

FACTORS AFFECTING THE ANXIETY LEVELS OF THE PARENTS OF CHILDREN

The mothers' Trait Anxiety mean scores were statistically and significantly higher than those of the fathers ($p<0.01$). Parents who had a primary school education were found to have Trait Anxiety mean scores that were significantly higher than parents who had a middle school education ($p<0.05$). In terms of their professions, parents who were retired or housewives displayed significantly higher mean scores on the Trait Anxiety Inventory than those who were civil servants/workers or self-employed ($p<0.01$). While the parents' State Anxiety mean scores showed no difference in terms of their employment status, the mean scores of the unemployed mothers/fathers on the Trait Anxiety Inventory were significantly higher than those of the employed parents ($p<0.01$). Parents who had a previous hospital experience had higher mean scores on the Trait Anxiety Inventory than those than who not had a previous experience with hospitals ($p<0.01$). Parents who had a caregiving responsibility at home displayed a Trait Anxiety mean score that was statistically and significantly higher than those who did not have such a responsibility ($p<0.01$) (Table 3).

Parents who prior to the intervention feared anesthesia-related problems had significantly higher mean scores on the State Anxiety Inventory than

TABLE 3: Distribution of Parents' State-Trait Anxiety Inventory scores, by their individual characteristics (n=91).

Characteristics		State Anxiety Inventory X̄±SD	Trait Anxiety Inventory X̄±SD
Parent	Mother	54.74±9.48	46.35±5.98
	Father	54.46±7.38	38.32±5.51
	t value	0.152	6.493
	p value	0.880	0.001**
Parent's education	Primary school/lower	52.00±11.12	46.32±7.01
	Middle school	54.88±7.60	41.16±6.24
	High school or higher	55.55±8.00	42.81±7.05
	F	1.162	3.156
	p value	0.318	0.047*
Parent's profession	Civil servant/worker	53.35±10.64	39.75±7.14
	Self-employed	53.73±7.79	40.87±6.56
	Retired/housewife	55.90±8.21	46.34±5.87
	F	0.821	9.847
	p value	0.4423	0.001**
Parent's employment status	Employed	53.38±8.88	40,24±6.47
	Unemployed	56.15±8.21	6.56±6.02
	t value	-1.530	-4.783
	p value	0.130	0.001**
Hospital experience	Yes	53.38±10.3	45.58±6.58
	No	55.61±7.04	41.14±6.74
	t value	-1.226	3.150
	p value	0.223	0.002**
Other person(s) parent cares for at home	Yes	55.07±9.22	46.59±6.10
	No	54.26±8.22	40.22±6.39
	t value	0.444	4.826
	p value	0.658	0.001**

*p<0.05; **p<0.01; t: Student t-test; F: One-way analysis of variance; SD: Standard deviation.

those who did not have such fears (p<0.05). Parents who had made a decision to have their child undergo an emergency intervention had significantly higher mean scores on the State Anxiety Inventory than those who had decided on elective day surgery (p<0.05). Parents who had made a decision to have their child undergo an elective surgical intervention had significantly higher mean scores on the Trait Anxiety Inventory than those who had decided on emergency day surgery (p<0.01). Parents who had been informed about the anesthesia to be given to their child had significant higher State Anxiety mean scores than those parents who had not been informed (p<0.01). Parents who had not been informed about the anesthesia to be given to their child had significantly higher Trait Anxiety mean scores than those parents who had been informed about this (p<0.01). Parents who had not been informed about day orthopedic surgical interventions had significantly higher Trait Anxiety mean scores that those who had been informed (p<0.05) (Table 4).

DISCUSSION

Anxiety not only affects individual children about to undergo a day surgical intervention but also their parents.[10] It was seen that the State and Trait Anxiety mean scores of the parents were at a moderate level. It is an inborn emotion activated as a result of a real or perceived danger and can change with learning.[11] In a study by Oğuzalp et al., in which the authors assessed the anxiety levels and expectations of parents of children undergoing day surgery, it was reported that mothers exhibited mean scores on the State and Trait Anxiety subscales of 51.60±8.80 and

TABLE 4: Distribution of parents' State-Trait Anxiety Inventory scores according to various factors (n=91).

Characteristics		State Anxiety Inventory $\bar{X}$±SD	Trait Anxiety Inventory $\bar{X}$±SD
Experiencing anesthesia-related fear before the surgery	Yes	50.00±9.95	43.50±7.83
	No	55.61±8.08	43.00±6.86
	t value	-2.421	0.258
	p value	0.018*	0.797
Type of surgery	Emergency	55.46±7.47	42.29±6.64
	Elective	49.17±13.34	48.33±7.28
	t value	2.410	2.901
	p value	0.018*	0.005**
Being informed about the anesthesia	Yes	55.90±7.63	41.85±6.56
	No	49.44±10.67	48.11±6.58
	t value	2.959	-3.625
	p value	0.004**	0.001**
Being informed about the surgeon	Yes	54.84±8.33	42.58±7.10
	No	52.90±11.24	47.20±4.47
	t value	0.667	-2.004
	p value	0.506	0.048*

t: Student t-test; *p<0.05; **p<0.01; SD: Standard deviation.

46.10±6.10, respectively.[12] In the study by Turan and Acaroğlu, it was observed that parents' mean scores on the State and Trait Anxiety subscales were at a moderate level.[8] It can be seen from a review of the literature that the State Anxiety mean scores of parents of hospitalized children are generally higher than their Trait Anxiety mean scores and that their anxiety is at a moderate level. Quality of life starts to change when a child is hospitalized and negative changes can be seen in the child's behavior. Together with this, parents' stress and anxiety levels rise, their roles and responsibilities change, and they experience a loss of control over their child's care.[13]

It was seen that the parents' State Anxiety mean scores were higher than their Trait Anxiety mean scores. The level of state anxiety reflects how an individual feels under certain circumstances and conditions, while trait anxiety refers to how the individual generally feels.[9] Fortier et al. showed that the State Anxiety mean scores of parents were higher than their Trait Anxiety mean scores.[14] Pomicino et al. reported in their study that the State Anxiety mean scores of mothers were prominently higher than their Trait Anxiety mean scores.[15] This finding pointing to parents' high level of anxiety, it is believed, is related, among others, to the response of the individuals in the study to the unfamiliar atmosphere of the hospital, the type of surgical intervention to be performed on the child, the necessity of communicating with persons one does not know, the degree to which the health team uses unfamiliar medical terminology, the use of unknown instruments, and the various procedures of diagnosis, treatment and care to be applied.

In the examination of the parents' individual characteristics in terms of the effect of these on the level of anxiety, it was observed that the mean scores of mothers' trait anxiety were significantly higher than those of the fathers. Mothers are reported in the literature as well as being more anxious than fathers in the preoperative period.[15-18] It is said that mothers have higher anxiety levels than fathers as the mother is the closest family member to a child in Turkish culture and she is the person expected to be immediately responsible for the child's care.[8] It is consistent with reported results in other studies in the literature, which indicate that both being a mother and being a female has an influence on why mothers' anxiety is higher than men's.[19] Parents with a primary school education or less exhibited significantly higher Trait Anxiety mean scores than parents with a middle

school education. A higher level of education supports and facilitates the mechanisms of coping with stress and anxiety. Studies indicate that parents with a low level of education commonly exhibit higher levels of anxiety, indicating that a parent's education is an influencing force.[12,13] It was found that parents who were retired or housewives had significantly higher Trait Anxiety mean scores than those who were workers or self-employed. They were parallel to some other reports that pointed to the influence of professional status on anxiety.[8,20] It suggests that being a long-term member of a particular profession is a factor that reduces levels of anxiety.

Statistically, unemployed parents were observed to have significantly higher Trait Anxiety mean scores than parents who were employed. Trait anxiety can be an emotion that leads to an individual's generally perceiving the circumstances he/she is in as stressful or stress-conducive. Individuals experiencing such anxiety also experience state anxiety more frequently and more intensively than others.[21] Parents with previous hospital experience exhibited significantly higher Trait Anxiety mean scores compared to those who had not had any such experience. The study by Andsoy and Alsawi revealed a statistically significant correlation between fathers' hospital experience and their anxiety scores.[13] Parents who have a caregiving responsibility at home displayed a Trait Anxiety mean score that was statistically and significantly higher than those who did not have such a responsibility. It was reported in the study by Turan and Acaroğlu that parents with 4 or more children displayed higher mean scores on the State Anxiety Inventory.[8] It indicates that parents with caregiving responsibilities at home experience more anxiety when their child is hospitalized since this represents an increase in the substance of their roles and responsibilities.

Parents who prior to the intervention feared anesthesia-related problems had higher mean scores on the State Anxiety Inventory than those who did not have such fears, and the difference was significant. Children sense their parents' anxiety and can be adversely affected by this. The literature indicates that the issue that causes the greatest anxiety in day orthopedic surgical interventions is the fear of anesthesia.[8,12] It is consistent with the literature in general and with the results reported by Turan and Acaroğlu.[8] To reduce the anxiety parent's experience, it is recommended that parents remain beside their children during the administration of anesthesia. It was found that parents who had made a decision to have their child undergo an emergency intervention had significantly higher mean scores on the State Anxiety Inventory than those who had decided on elective day surgery. Parents can have extreme feelings of anxiety, stress and despair because of a surgical intervention that the child will be undergoing. It is known that this degree of anxiety during and after a procedure can lead to various problems and cause the children of these parents anxiety as well.[22] It was seen that parents making a decision to have their child undergo an elective surgical intervention had significantly higher mean scores on the Trait Anxiety Inventory than those who had decided on emergency surgery. Trait anxiety refers to an individual's predisposition to experience anxiety. Especially in elective surgical procedures, parents generally experience intensive anxiety, even though there has been enough time to prepare the child for surgery and despite the fact that nurses have been well-trained to handle this preparation process. This finding supports the outcomes reported regarding the emotions experienced by parents prior to surgical procedures. Parents who had been informed about the anesthesia to be given to their child had significantly higher and statistically more pronounced State Anxiety mean scores than those parents who had not been informed about the process. Oğuzalp et al. found in their study that parents who had talked with the anesthesiologist had lower levels of anxiety.[12] This finding makes it clear that conducting face-to-face discussions between parents and anesthesiologists in which parents can have their questions answered over the course of a day orthopedic surgical intervention must be an essential part of the process.

Parents who had not been informed about the anesthesia to be given to their child had significantly higher and statistically more pronounced Trait Anxiety mean scores than those parents who had been informed about the process. Gürol and Binici found in their study that mothers who have not been provided

information on anesthesia display higher Trait Anxiety mean scores.[23] It is believed that when parents' questions about anesthesia are answered prior to a day orthopedic surgical procedure, this will contribute to lessening the level of anxiety parents feel. It is emphasized that providing children and their parents with information about a surgical procedure is an effective way of reducing anxiety and stress and that doing this makes a positive contribution to care and treatment and leads the way to rapid recovery.[13] It has been shown in similar studies than receiving information about a surgical procedure brings down parents' anxiety levels.[12,24]

LIMITATIONS

The data of the study collected were only a training and research hospital. Therefore, the results could not be generalized to all parents of children undergoing day orthopedic surgery.

CONCLUSION

The parents' State and Trait Inventory scores indicated that they were experiencing a moderate level of anxiety. It was found that there were certain individual factors that affected the parents' anxiety levels prior to the day orthopedic surgery intervention. In order to reduce the anxiety of parents, it is recommended that written materials should be given before the day surgery, and nurses should take part in patient education.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Türkinaz Aştı, Şeyma Nur Sert;* ***Design:*** *Nuray Turan, Türkinaz Aştı;* ***Control/Supervision:*** *Türkinaz Aştı, Nuray Turan;* ***Data Collection and/or Processing:*** *Şeyma Nur Sert, Nuray Turan;* ***Analysis and/or Interpretation:*** *Şeyma Nur Sert, Nuray Turan;* ***Literature Review:*** *Şeyma Nur Sert, Nuray Turan;* ***Writing the Article:*** *Şeyma Nur Sert, Nuray Turan;* ***Critical Review:*** *Türkinaz Aştı, Nuray Turan;* ***References and Fundings:*** *Şeyma Nur Sert, Nuray Turan, Türkinaz Aştı.*

REFERENCES

1. Larsson F, Strömbäck U, Rysst Gustafsson S, Engström Å. Postoperative recovery: experiences of patients who have undergone orthopedic day surgery. J Perianesth Nurs. 2022;37(4):515-20. [Crossref] [PubMed]
2. Potter PA, Perry AG, Stockert PA, Hall A, Ostendorf WR. Nursing today. In: Potter PA, Perry AG, Stockert PA, Hall A, eds. Fundamentals of Nursing. 9th ed. St. Louis, Missouri: Elsevier Inc.; 2021. p.70-100.
3. Özkan M. Günübirlik ortopedik cerrahi hastasının bakım yönetimi [Care management of outpatient orthopaedic surgery patient]. J Surg Nurs-Special Topics. 2017;3(1):38-44. [Link]
4. Arpacı AH. Pediyatrik olgularda günübirlik anestezi [Ambulatory anesthesia in pediatric patients: review]. J Anest Reanim. 2016;14(2):51-7. [Crossref]
5. Çilingir D, Bayraktar N. Günübirlik cerrahi süreci ve hemşirelik bakımı [Day surgery process and nursing care]. Hacettepe University School of Nursing Journal. 2006;13(1):69-81. [Link]
6. Dahlberg K, Jaensson M, Nilsson U. "Let the patient decide" - Person-centered postoperative follow-up contacts, initiated via a phone app after day surgery: Secondary analysis of a randomized controlled trial. Int J Surg. 2019;61:33-7. [Crossref] [PubMed]
7. Royal College of Nursing. Day Surgery for Children and Young People, 2020, London: The RCN. (Access Date/Erişim tarihi: 10 Ocak 2022) [Link]
8. Turan NK, Acaroğlu R. Cerrahi girişim uygulanan adolesanlar ile anne/babalarının anksiyete düzeyleri arasındaki ilişki ve anksiyete nedenlerinin incelenmesi [The relationship between anxiety levels of adolescents who undergo surgical interventions and their parents and analysis of anxiety causes]. J Med Sci. 2012;32(2):308-15. [Crossref]
9. Öner N. Türkiyede Kullanılan Psikolojik Testlerden Örnekler. İstanbul: Boğaziçi Üniversitesi Yayınevi; 2006. p.589.

10. Fındık ÜY, Topçu SY. Cerrahi girişime alınış şeklinin ameliyat öncesi anksiyete düzeyine etkisi [Effect of the way of surgery on preoperative anxiety]. Hacettepe University Faculty of Health Sciences Nursing Journal. 2012;19(2):22-33. [Link]
11. Rowe WS, Yaffe MJ, Pepler C, Dulka IM. Variables impacting on patients' perceptions of discharge from short-stay hospitalisation or same-day surgery. Health Soc Care Community. 2000;8(6):362-71. [Crossref] [PubMed]
12. Oğuzalp H, Pamuk GA, Öcal T. Günübirlik cerrahide ebeveyn anksiyetesinin ve beklentilerinin değerlendirilmesi [Evaluation of parental anxiety and desire in day case surgery unit]. Turkish Anesthesia and Reanimation Association Journal. 2010;38(3):208-16. [Link]
13. Andsoy II, Alsawi MOS. Determination of knowledge and anxiety levels of the fathers of the children who will undergo surgical intervention. Journal of Contemporary Med. 2018;8(3):264-70. [Link]
14. Fortier MA, Blount RL, Wang SM, Mayes LC, Kain ZN. Analysing a family-centred preoperative intervention programme: a dismantling approach. Br J Anaesth. 2011;106(5):713-8. [Crossref] [PubMed] [PMC]
15. Pomicino L, Maccacari E, Buchini S. Levels of anxiety in parents in the 24 hr before and after their child's surgery: A descriptive study. J Clin Nurs. 2018;27(1-2):278-87. [Crossref] [PubMed]
16. Messeri A, Caprilli S, Busoni P. Anaesthesia induction in children: a psychological evaluation of the efficiency of parents' presence. Paediatr Anaesth. 2004;14(7):551-6. [Crossref] [PubMed]
17. Scrimin S, Haynes M, Altoè G, Bornstein MH, Axia G. Anxiety and stress in mothers and fathers in the 24 h after their child's surgery. Child Care Health Dev. 2009;35(2):227-33. [Crossref] [PubMed] [PMC]
18. Thompson C, MacLaren JE, Harris A, Kain Z. Brief report: prediction of children's preoperative anxiety by mothers and fathers. J Pediatr Psychol. 2009;34(7):716-21. [Crossref] [PubMed]
19. Yılmaz E, Aydın E. Cerrahi girişim yapılan hastalarda ameliyat öncesi-sonrası anksiyetenin derlenme kalitesine etkisi [The effect of pre and postoperative anxiety in quality of recovery in patients undergoing surgery]. Fırat Health Services Journal. 2013;8(23):79-95. [Link]
20. Daşdan ND, Deniz N, Şahin B. Kars'ta gebelerin ev ziyareti ile ruhsal durumlarının belirlenmesi [The determination of mental status of pregnants by home visiting in Kars]. Journal of Psychiatric Nursing. 2015;6(2):71-8. [Link]
21. Alisinanoğlu F, Ulutaş İ. Çocukların kaygı düzeyleri ile annelerinin kaygı düzeyleri arasındaki ilişkinin incelenmesi [A study on the relationship between children's anxiety levels and their mother's anxiety levels]. Education and Science. 2003;28(128):65-71. [Link]
22. Erden İA, Pamuk AG, Arun O, Akıncı SB, Önal Ö, Aypar Ü. Anestezi uygulanacak çoçuk hastaların ebeveynlerinin anksiyeteleri üzerine müziğin etkisi [Effect of music on parental anxiety those children undergoing anesthesia]. Journal of Anesthesia. 2010;18(2):94-8. [Link]
23. Gürol A, Binici Y. Günübirlik cerrahi geçirecek çocukların annelerinin anksiyete düzeyleri ve etkileyen faktörlerin belirlenmesi [Determination of anxiety levels of the mothers whose children will undergo day care surgery and the effective factors]. Journal of Izmir Doctor Behçet Uz Children's Hospital. 2017;7(1):29-38. [Link]
24. Çalbayram NÇ, Altundağ S, Aydin B. The anxiety states of fathers of hospitalized children and its causes. Journal of Health Science. 2016;10(6):1-6. [Crossref]