

The Effect of Bibliotherapy on Primary School Students' Health Literacy and Emergency Service Awareness: Single Group Quasi-Experimental Study

Bibliyoterapinin İlkokul Öğrencilerinin Sağlık Okuryazarlığı ve Acil Servis Farkındalıkları Üzerine Etkisi: Tek Gruplu Yarı Deneysel Çalışma

Esra Bekircan¹, Fatma Bogan², Yasin Haydar Yartasi³, Senem Baykurt Sönmez⁴, Mustafa Bogan³

ABSTRACT

Aim: The aim of this study was to enhance primary school students' knowledge levels concerning health literacy and awareness of emergency department services through the use of bibliotherapy.

Material and Methods: This study employed a pre-test and post-test, one-group quasi-experimental design. The study sample consisted of 62 fourth-grade primary school students. Data were collected using the "Personal Information Form", "Health Literacy Scale for School-Age Children", and "Structured Questions on Emergency Service Awareness". A paired samples t-test was used to compare the dependent groups. The relationship between dependent categorical variables was examined using the McNemar test. A significance level of 0.05 was used as the criterion for interpreting whether the obtained values were statistically significant.

Results: A statistically significant difference was found between the pre-test and post-test scores of primary school students regarding their knowledge levels related to emergency department awareness ($t_{61} = -2.29$; $p < 0.05$). The increase in students' knowledge about triage colors in the emergency department and their understanding of the concept of triage was also statistically significant following bibliotherapy intervention ($p < 0.05$). The improvement in knowledge regarding appropriate situations for emergency department visits was also found to be statistically significant ($p < 0.05$). However, bibliotherapy was not found to have a statistically significant effect on the health literacy levels of primary school students, as there was no significant difference between their pre-test and post-test scores ($p > 0.05$).

Conclusion: It was concluded that bibliotherapy was effective in increasing primary school students' knowledge about the appropriate use of emergency services. In line with the topics covered in the bibliotherapy text, students were found to have learned the emergency department triage color codes, understood the concept of triage, and improved their knowledge of situations that require emergency care. These findings suggest that bibliotherapy-based course content can be developed to raise awareness among children—beginning from primary education—regarding the appropriate and effective use of healthcare services. Such initiatives should be supported by a multidisciplinary approach that integrates emergency medicine, psychiatric nursing, and educational sciences.

Keywords: Bibliotherapy, emergency service, awareness, health literacy, primary school

ÖZ

Amaç: Bu çalışmada bibliyoterapi ile ilkökul öğrencilerinin sağlık okuryazarlığı ve acil servis farkındalıklarına yönelik bilgi düzeylerini geliştirmek amaçlanmıştır.

Gereç ve Yöntemler: Bu araştırma, ön test ve son test, tek grup yarı deneysel desende yürütülmüştür. Araştırmanın örneklemini 4. sınıfa giden 62 ilkökul öğrencisi oluşturmaktadır. Araştırmanın verileri "Kişisel Bilgi Formu", "Okul Çağındaki Çocuklar İçin Sağlık Okuryazarlığı Ölçeği" ve "Acil Servis Farkındalığına Yönelik Yapılandırılmış Sorular" ile toplanmıştır. Bağımlı iki grup karşılaştırmasında bağımlı örneklem t-testi kullanılmıştır. Bağımlı kategorik değişkenler arası ilişkiye McNemar testi ile bakılmıştır. Elde edilen değerlerin anlamlı olup olmadığının yorumlanmasında 0,05 anlamlılık düzeyi ölçüt olarak kullanılmıştır.

Bulgular: Çalışmada yer alan ilkökul öğrencilerinin acil servis farkındalığına yönelik bilgi düzeyleri ön test ve son test puanları arasında istatistiksel olarak anlamlı bir fark tespit edildi ($t_{61} = -2,29$; $p < 0,05$). Bibliyoterapi sonrasında öğrencilerin acil serviste bulunan triaj renklerine ilişkin ve triajın ne olduğunu anlamalarına yönelik bilgi düzeylerindeki artışın anlamlı olduğu sonucuna ulaşıldı ($p < 0,05$). Acil servise hangi durumlarda başvurulması gerektiğine ilişkin bilgi düzeylerindeki artışın da anlamlı olduğu saptandı ($p < 0,05$). İlkokul öğrencilerinde bibliyoterapinin sağlık okuryazarlığı üzerinde ön test ve son test puanları arasında anlamlı bir etkisinin olmadığı sonucuna ulaşıldı ($p > 0,05$).

Sonuç: Bibliyoterapinin ilkökul öğrencilerinin acil servis kullanımına yönelik bilgi düzeylerini arttırmakta etkili olduğu sonucuna ulaşılmıştır. Bibliyoterapi metni içerisinde ele alınan konular doğrultusunda öğrencilerin acil serviste bulunan triaj renk kodlarını öğrendikleri, triaj uygulamasının ne olduğunu anladıkları ve acil servislere hangi durumlarda başvurulması gerektiğine yönelik bilgi düzeylerinin arttığı belirlenmiştir. Bu sonuçlar doğrultusunda, acil tıp, psikiyatri hemşireliği ve eğitim bilimlerinin multidisipliner yaklaşımı temel alınarak, ilköğretim düzeyinden itibaren çocuklara sağlık hizmeti sunan kurumların doğru ve etkili kullanımına yönelik farkındalık kazandırmayı amaçlayan, bibliyoterapi temelli ders içerikleri geliştirilebilir.

Anahtar Kelimeler: Bibliyoterapi, acil servis, farkındalık, sağlık okuryazarlığı, ilkökul

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¹Trabzon University, Tonya Vocational School, Department of Medical Services and Techniques, Trabzon, Türkiye

²Düzce University, School of Health Services, Department of Medical Services and Techniques, Düzce, Türkiye

³Düzce University, Faculty of Medicine, Department of Emergency Medicine, Düzce, Türkiye

⁴Düzce Özel Su Damlası Koleji, Düzce, Türkiye.

Corresponding Author: Esra Bekircan **Address:** Trabzon University, Tonya Vocational School, Department of Medical Services and Techniques, Trabzon, Türkiye
Telephone: +90 5536682701 **e-mail:** esrasancan1991@hotmail.com.

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Introduction

The increasing number of emergency department visits represents a significant healthcare concern both globally and in Türkiye. The use of emergency departments for non-urgent cases, similar to those managed in outpatient clinics or family medicine practices, leads to various issues, including delays in timely care for patients who urgently need emergency care (1). A lack of awareness about the appropriate circumstances for seeking emergency care contributes to the unnecessary and inappropriate use of these units, thereby causing disruptions in the delivery of healthcare services (2). Enhancing knowledge and awareness regarding the proper use of emergency departments can ensure the effective and efficient utilization of the healthcare system.

Health literacy is considered a crucial prerequisite for an individual to take a proactive role in their health and lifestyle, as well as to engage effectively as an active partner in interactions with healthcare professionals and institutions (3). Health literacy plays an important role in shaping health behaviors and influencing outcomes across all age groups (4). A review on definitions and models of health literacy in childhood and adolescence has identified three fundamental dimensions of health literacy: cognitive attributes (knowledge, functional health-related skills, comprehension and understanding; appraisal and evaluation, critical thinking); behavioral and operational attributes (information seeking and access; communication and interaction; application of information; other context-specific skills, including citizenship); and emotional and effortful attributes (self-awareness and self-reflection; self-control and self-regulation; self-efficacy; interest and motivation). In particular, the behavioral, emotional, and effortful attributes highlight the importance of context and domain-specific health literacy (5). Developing health literacy awareness in children from an early age is critically important for building a society composed of healthy individuals. In this context, it is necessary to systematically instill health literacy awareness in children during their process of forming health-related concepts and habits (6). The primary school period, covering ages 7 to 11, is a phase in which children experience continuous biopsychosocial growth and development. To ensure accurate understanding of health-related information and to achieve better health outcomes, health literacy skills should be cultivated during the school-age period (7).

Bibliotherapy can be defined as the use of books in a therapeutic process (8). In bibliotherapy, engaging with literature and learning how to relate more effectively to the characters and themes in a book can enhance children's and adolescents' insights and understanding of themes and experiences related to their own lives. Bibliotherapy can be strengthened through the use of various techniques such as discussion, the therapeutic use of art, dramatization, puppetry, and creative writing (9,10). Bibliotherapy interventions have been found to be beneficial in supporting children's emotional growth and helping them gain insight (6). Using storytelling as a method of presentation, bibliotherapy interventions can be effective in promoting emotional development and fostering insight (11). Bibliotherapy consists of four steps: pre-reading (selecting

the material), guided reading (reading together), post-reading discussion (using the story to convey a lesson), and a related activity (to help children apply the story's message to real-life situations). (9,10). A systematic review on the effectiveness of bibliotherapy in children reported that bibliotherapy has small to moderate positive effects on children's behavior (8).

Considering the increasing workload and violence experienced by healthcare workers both in Türkiye and worldwide (12), it has been deemed necessary to develop an approach within the framework of preventive mental health services that raises awareness among children about the appropriate use of emergency departments and health literacy. Given the rising prevalence of mental health issues today, taking necessary steps starting from childhood to protect and strengthen the mental health of the community (13) can be a crucial measure. Based on the bibliotherapy implementation process, no descriptive or interventional studies have been found in our country aimed at raising awareness among children regarding health literacy and emergency department use. Applying bibliotherapy as a primary prevention method for children may improve their health literacy levels and increase awareness about the appropriate use of emergency health services, which can be considered a contribution to society. This study aimed to enhance children's health literacy levels and raise their awareness of emergency department use through bibliotherapy. Accordingly, the following hypothesis was formulated:

H1: Bibliotherapy is effective in increasing primary school students' knowledge levels of emergency department usage awareness.

H2: Bibliotherapy is effective in improving primary school students' health literacy levels.

Material and Methods

Ethical Approval

An ethics committee approval was obtained from the Scientific Research and Publication Ethics Committee of Trabzon University, Social and Human Sciences, with the document numbered E-81614018-050.04-2400024213 dated May 21, 2024. After obtaining the necessary permissions from the Düzce Provincial Directorate of National Education, the purpose of the study and the details of the scales were shared with the school administration and teachers of the school where the research was conducted. Informed consent forms were obtained from the parents of the students who participated in the study. The students included in the research were informed about the aim of the study, and written and verbal informed consent was obtained from each participant in accordance with the Declaration of Helsinki of the World Medical Association.

Research Design

A quasi-experimental pre-test/post-test design with a single experimental group was used in this study.

Place and Time of the Study

This study was conducted in a primary school affiliated with the Directorate of National Education in Düzce province. The study school is located in close proximity to emergency medical services in the city center. The data were collected between May 27 and July 14, 2024.

Population and Sample

The study population included primary school children, and the sample consisted of 62 fourth-grade students who met the eligibility criteria. As the study employed a quasi-experimental design without randomization, no separate sampling process was carried out; instead, the available group of students meeting the criteria was used as the study group. The sample of the study consisted of 62 4th-grade students.

The inclusion criteria were as follows; being a fourth-grade primary school student, having no physical or perceptual impairment that would hinder communication, volunteering to participate in the study, obtaining written and verbal parental consent, expressing willingness to read the assigned books.

Exclusion criteria were as follows; presence of a communication barrier that impedes participation, lack of willingness to participate in the research, refusal to read the assigned book, failure to attend any session of the four-session training program

Implementation Process

The bibliotherapy program implemented in this study was designed considering the students' curricula and the content of their education. It consisted of four sessions, held twice per week. Each session lasted approximately 30 to 40 minutes, corresponding to a standard class period. A literature review revealed that the number of bibliotherapy sessions applied to children typically ranges from 3 to 8 across various studies (14,15). In the first session, an introductory activity and engagement exercises to capture the children's interest were conducted, followed by the administration of the pre-test. During this session, children were informed about bibliotherapy and given the books they were expected to read. Three days before the second session, it was ensured through the children's teachers that the assigned bibliotherapy book was read during the designated reading hour.

The bibliotherapy text used was the short story book titled 'The Mystery of the Red Car,' written by Emergency Medicine Specialist Associate Professor Dr. Mustafa Boğan (16). To assess the suitability of the book with respect to the study's objectives and the children's developmental levels, expert opinions were obtained from professionals in the field of educational sciences, emergency medicine, and psychiatric nursing. The content of this book includes a fictional narrative about the emergency department experiences of three children, prepared in accordance with their mental levels. The bibliotherapy intervention used in the study was conducted by psychiatric nurses trained in bibliotherapy. Education on the proper use of emergency departments was carried out in collaboration with emergency medicine specialists involved in the study. To reinforce emergency department usage and health literacy levels through the bibliotherapy text, expert opinions were obtained from specialists in emergency medicine, educational sciences, and psychiatric nursing regarding the developed educational content and survey questions.

The Data Collection Process is summarized in Table 1.

Measurement Tools Used in the Study

The data for the study were collected using the 'Personal Data Form,' the 'Health Literacy Scale for School-Aged

Children,' and the 'Structured Questions on Emergency Department Awareness' prepared by the researchers.

Personal Information Form: This section contains a total of 11 questions regarding children's age, gender, family type, presence of chronic illness, and health status, developed by the researchers based on a literature review (15-17).

Structured Questions on Emergency Service Awareness:

Twelve questions were developed to match the cognitive level of children and were finalized based on expert feedback. The questions cover topics such as the meaning of color codes in emergency services, the concept of triage, appropriate situations for visiting the emergency department, and the differences between seeking care in family medicine and in emergency services. Kuder-Richardson (KR-20) and item-total correlations were examined to test the reliability of the knowledge level for emergency room awareness. High and positive item-total correlations indicate that the items in the measurement tool exemplify similar behaviors and the internal consistency of the scale is high. It is also stated that an item-total correlation value of 0.30 and above is sufficient and that items with these values are good items (18). For the 12-item achievement test, it was determined that the item-total correlations were above 0.30 and the overall reliability value was 0.73 and 0.88 for the pre-test and post-test, respectively. Since the Cronbach's Alpha coefficient obtained in this study is measured on a scale from 0 to 1, the reliability is considered to be high.

Learning aims	<ul style="list-style-type: none"> -Students will learn what the emergency service is and its purpose. -Students will learn triage in the emergency service. -Students will learn in which situations the emergency service should be applied. -Students will think that the emergency service should not be used unnecessarily.
Pre-intervention	<ul style="list-style-type: none"> -Asking students about their experiences of going to the emergency service -Discussing the impact of the emergency room environment on the students who go to the emergency service as a patient
Intervention	<ul style="list-style-type: none"> -In the first session, students are introduced and pre-tests are administered. The teacher makes sure that the children have read the storybook until the next session. -In the second session, the process of identification, purification, and insight of bibliotherapy is processed with structured questions through the book "The Mystery of the Red Car". -In the third session, information on health literacy and emergency service awareness is reinforced and explained through the book. -In the fourth session, the previous sessions are summarized, and the post-test is applied.
Structured questions:	<ul style="list-style-type: none"> -Can you describe the plot of the book? -What did you feel and think when you read the book? -What do you think is the message of the book? -Are there any similarities between the plot described in the book and your experiences in the emergency service?
Closing:	<ul style="list-style-type: none"> -Messages extracted from the book are repeated. -Learning outcomes are generally repeated.

Table 1: Bibliotherapy process applied in this study

Health Literacy Scale for School-Age Children: The Health Literacy for School-Age Children scale developed by Paakkari et al. (2016) assesses the level of health literacy of school-age children (6- 18 years) in five domains: theoretical knowledge, practical knowledge, critical thinking, self-awareness, and citizenship. The scale items have a 4-point Likert-type response option such as Absolutely not true=1, Completely not true=2, Somewhat true=3, Absolutely true=4. The total score obtained by summing the items varies between 10-40 points, with (10-25 points) defining low, (26-35 points) medium, and (36-40 points) high health literacy (19). The scale was translated into Turkish under the name Health Literacy Scale for School-Age Children, and its validity and reliability was conducted by Haney (2018). The validity of the scale in Turkish culture was examined by confirmatory factor analysis and its reliability was examined by Cronbach's α coefficient (0.77) (20). For this study, the Cronbach's α coefficient for the pretest of the health literacy scale for school-age children was calculated as 0.82. This shows that the scale scores have a high level of reliability.

Variable	Group	n (%)
Gender	Male	29 (46.7)
Mother's employment status	Working	48 (77.4)
Father's employment status	Working	60 (96.8)
	Literate	1 (1.6)
	Primary School	3 (4.8)
Mother's education level	Middle School	4 (6.5)
	High School	2 (3.2)
	University and above	52 (83.9)
	Literate	2 (3.2)
	Middle School	1 (1.6)
Father's education level	High School	5 (8.1)
	University and above	54 (87.1)
Chronic disease status	Yes	12 (19.4)
Medication use (Chronic disease)	Yes	12 (19.4)
Whether they have applied to the emergency service due to any health problem	Yes	17 (27.4)
	Middle	10 (16.1)
	Good	22 (35.5)
Overall health assessment status	Very good	29 (46.8)
	Very bad	1 (1.6)
Previously informed about the situations in which emergency services will be used	Yes	22 (35.5)

Table 2: Demographic characteristics of primary school students (n=62).

Sample Size

The sample size of the study was evaluated through a power analysis, considering a single experimental group with a pre-test/post-test design. The effect size (Cohen's d) was set at 0.39, the Type I error rate (α) at 0.05, and the desired power ($1 - \beta$) at 90%. Based on these parameters, the required sample size was calculated to be approximately 69 participants; however, the study was conducted with 62 participants. With the current sample size, the estimated power was approximately 87%, indicating that the study possesses sufficient statistical power for the analyses conducted.

Statistical Analysis

All data were recorded and analyzed on the computer using the SPSS (Statistical Package for the Social Sciences) for Windows 22 program. In the analysis of the data, firstly, the assumptions to be met in order to decide which tests (parametric/nonparametric tests) to apply were tested. Kolmogorov-Smirnov, kurtosis and skewness values, which are other assumptions of normal distribution, were used to decide on the normality of the distribution. A dependent sample t-test was used to compare two dependent groups. The relationship between dependent categorical variables was examined with the McNemar test. The significance level of 0.05 was used as a criterion for interpreting whether the values obtained were significant or not.

Results

Table 2 shows that 53.23% of the students in the study were female, 83.37% of the children's mothers, and 87.10% of the children's fathers were university graduates. It was determined that all children with chronic illnesses were using medication due to their chronic conditions. 27.42% of the children reported having visited the emergency department before for any reason, and 64.52% stated that they had not previously received any education regarding the appropriate purposes for using emergency departments.

	For the pre-test		For the post-test	
	Item-total correlation	KR-20 if Item Deleted	Item-total correlation	KR-20 if Item Deleted
Item 1	0.32	0.74	0.77	0.86
Item 2	0.35	0.75	0.36	0.88
Item 3	0.31	0.65	0.31	0.89
Item 4	0.37	0.81	0.76	0.86
Item 5	0.39	0.77	0.80	0.86
Item 6	0.35	0.65	0.46	0.88
Item 7	0.41	0.74	0.30	0.89
Item 8	0.56	0.71	0.77	0.86
Item 9	0.45	0.81	0.47	0.88
Item 10	0.41	0.77	0.59	0.87
Item 11	0.37	0.66	0.67	0.87
Item 12	0.74	0.62	0.79	0.86

Table 3: Item-total correlation values of the achievement test

	Test	n	$\bar{X} \pm SD$	t	sd	p
Emergency service awareness knowledge level	Pre-test	62	6.19 \pm 1.89	-2.29	61	0.03
	Post-test	62	7.27 \pm 3.71			
Health literacy scale for school-age children	Pre-test	62	27.94 \pm 6.13	-1.48	61	0.14
	Post-test	62	29.05 \pm 5.40			

Table 4: Findings for the comparison of pre- and post-test values.

Structured questions on emergency service awareness	Pre-test		Post-test		McNemar
	n	%	n	%	
1. Which of the following is not one of the colors found in the emergency service?	21	33.87	46	74.19	0.01
2. What is triage in the emergency service?	7	11.29	20	32.79	0.01
3. In which cases should an ambulance be called?	3	4.84	16	25.81	0.01
4. Which of the following patients should be treated first in the emergency service?	52	83.87	48	77.42	0.48
5. Which of the following is the number of the ambulance?	60	96.77	49	79.03	0.01
6. Where do you go for injections or dressings?	19	30.65	25	40.32	0.29
7. Which of the following complaints can be referred to the emergency service?	6	9.68	4	6.45	0.69
8. How many hours a day do emergency services work?	41	66.13	47	75.81	0.29
9. Which of the following should you go to for height and weight monitoring?	26	41.94	32	51.61	0.34
10. Which of the following is not an emergency service staff member?	42	67.74	40	64.52	0.83
11. Where are the most serious patients examined in emergency services?	44	70.97	46	74.19	0.84
12. Where are patients who do not need to be examined in emergency services directed if they apply to the emergency service?	22	35.48	34	54.84	0.03

Table 5: Distribution of the effect of bibliotherapy on primary school students' responses regarding emergency service awareness (n=62)

In Table 3, the KR-20 coefficient and item-total correlations were examined to test the reliability of the knowledge level regarding emergency department awareness. The high and positive item-total correlations indicate that the items in the measurement tool represent similar behaviors and that the internal consistency of the scale is high. It is also stated that an item-total correlation value of 0.30 or higher is sufficient and that items with such values are considered good items. For the 12-item achievement test, the item-total correlations were found to be above 0.30, and the overall reliability coefficients for the pre-test and post-test were 0.73 and 0.88, respectively.

In Table 4, a statistically significant difference was found between the emergency service awareness knowledge level pre- and post-test scores ($t_{61} = -2.29$; $p < 0.05$). Analysis of mean scores revealed that post-test knowledge scores (7.27 ± 3.71) were higher than pre-test scores (6.19 ± 1.89). When the pre-test and post-test scores of the Health Literacy Scale for school-age children were compared, the pre-test mean score was 27.94 ± 6.13 , and the post-test mean score was 29.05 ± 5.40 . However, this difference was not statistically significant ($t = -1.48$; $p > 0.05$).

Table 5 shows the distribution of the effect of the content in the storybook used in bibliotherapy on the basis of questions. While 11.29% of the students answered the question about triage in the emergency service correctly in

the pre-test, the rate of correct answers increased to 32.79% in the post-test ($p < 0.05$).

While 33.87% of the participants correctly answered the question about which colors are in the emergency service in the pre-test, this rate increased to 74.19% in the post-test. According to the McNemar test result, this difference was statistically significant ($p < 0.05$).

The students were asked in which cases an ambulance should be called, and while 4.84% gave the correct answer in the pre-test, this rate increased to 25.81% in the post-test ($p < 0.05$).

In the question on where non-urgent patients should seek care, the proportion of correct responses increased from 35.48% in the pre-test to 54.84% in the post-test. According to the McNemar test result, this difference was found statistically significant ($p < 0.05$).

Discussion

In this study, it was concluded that bibliotherapy had a positive effect on increasing the knowledge level of primary school students about the use of emergency services. The continued increase in non-life-threatening visits to emergency departments and the use of emergency departments as a primary healthcare resource (21) may lead to disruptions in their functioning and misuse. In a study conducted to determine the purpose of using emergency departments in Türkiye, it was shared that 206,393

applications were made to the emergency department in 2021, 0.87% of the applications were in the red triage group, 87.99% in the yellow triage group and 11.15% in the green triage group (22). These results suggest that people have a low level of awareness regarding the appropriate situations for using emergency departments. The frequent use of emergency departments for health problems that do not require examination, observation and treatment makes it difficult to maintain the multidimensional services of emergency departments (23). These findings highlight the need to inform the public in Türkiye about appropriate indications for visiting emergency departments. Reading materials can help children develop healthy behavior patterns by strengthening their social, emotional, and cognitive domains. Bibliotherapy can facilitate empathy, emotional memories, and identification in areas such as recognizing and adapting to the topic addressed (24). It is suggested that education on the effective and efficient use of emergency services applied to school-age children through bibliotherapy may be effective in increasing their knowledge levels.

In this study, the purpose of the color codes used in triage within emergency departments was explained to the students through the bibliotherapy story. The story also aimed to teach when it is appropriate to seek care in emergency services and when to consult a family physician or outpatient clinics instead. It was determined that primary school students learned the meaning of the colors red, yellow and green in the emergency room with bibliotherapy, understood what triage practice was, and increased their level of knowledge about the situations in which emergency services should be applied. In a study conducted in Türkiye, 77% of patients who visited the emergency department were unfamiliar with the concept of triage and reported seeking care in emergency departments more frequently than in family medicine clinics (25). In a study conducted to evaluate the problems experienced in the emergency department, it was shared that ineffective triage and inappropriate use of emergency departments by patients disrupted the functioning of the emergency department. In the continuation of the same study, it was emphasized that society should be made aware of the use of emergency services and primary health care services should be encouraged to be used more effectively (26). In this study, awareness was raised at the primary prevention level to prevent the misuse of emergency services from childhood. In this study, we aimed to increase children's knowledge about the use of emergency services through the story in the bibliotherapy text. The fact that the main character was a child of their age level may have facilitated the participants' identification and made it easier to read the storybook. Stories can help children find meaning and succeed in social, emotional and cognitive tasks. The main character being a child close to the participants' age facilitated their identification with the character, which increased the readability of the storybook. Stories can help children find meaning and succeed in social, emotional, and cognitive tasks (24). No study was found in which bibliotherapy was used directly on children's level of knowledge in the use of emergency services, and other studies evaluating the effectiveness of bibliotherapy on children were examined

(27,28). Based on these studies, it is suggested that bibliotherapy may be effective in enhancing children's understanding and learning of a concept or situation. In the continuation of the study, it was found that bibliotherapy applied to the students increased children's knowledge about which situations require emergency care and that patients without urgent conditions should primarily seek help from family physicians or outpatient clinics. In Türkiye, emergency departments are the first place of referral for any acute or chronic problem or even for any condition that can be handled by a family physician. In addition, reasons such as long waiting times in emergency departments, excessive number of applications, and applications by patients and their relatives with high levels of anxiety and stress can lead to disruptions in the provision of effective and adequate health care services in emergency departments (29,30). Unnecessary applications to emergency departments can lead to negative effects such as missed diagnosis or delayed treatment of a patient with myocardial infarction (31). It can be stated that children's knowledge levels increased by explaining the differences between emergency department, family medicine and outpatient clinic applications in terms of receiving health care services in line with the education provided by bibliotherapy. Within the framework of school-based interventions, psychiatric nurses can contribute to preventive mental health services through collaborative efforts with teachers, implementing interventions from childhood aimed at promoting healthy lifestyle habits and proper use of health services.

Implications for clinical:

What is already known about this topic?

To date, no initiative has been encountered to raise emergency service awareness among school-age children.

What does this paper add to the currently published literature?

Children have been taught about the functioning of emergency services and how to use them appropriately through bibliotherapy and reading books.

What is the most important implication for clinical emergency departments?

Raising a generation conscious of emergency healthcare services from childhood can have a primary preventive effect. Through children gaining awareness of emergency services, a protective effect can be achieved in preventing excessive visits to emergency departments.

Conclusion

In this study, it is suggested that bibliotherapy may have a positive effect on increasing primary school students' knowledge levels regarding the use of emergency services. The bibliotherapy intervention is believed to potentially enhance children's understanding of both the concept of triage and the meaning of color codes used in triage. In addition, bibliotherapy may be effective in improving students' understanding of when to seek care from emergency services, family physicians, or outpatient clinics. In order to spread the positive effects of the bibliotherapy program to a wider audience, it may be considered to extend the application to different age groups and schools. In

addition, collaboration with parents and teachers to reinforce the knowledge gained by children may contribute to increasing health literacy. In order to observe the long-term effects of bibliotherapy, follow-up studies can be organized at regular intervals, so that the sustainability of the level of knowledge and the potential to create behavioral change can be evaluated. In addition, more storytelling materials can be produced for children, and materials such as animations or graphics that will strengthen children's visual memory can be used to make information about emergency room processes more memorable.

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