

# The Mediating Role of Resilience in the Relationship between Social Exclusion and Sleep Parameters in Refugee Children

## Mülteci Çocuklarda Sosyal Dışlanma ve Uyku Parametreleri Arasındaki İlişkide Dayanıklılığın Aracı Rolü

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### Abstract

**Background:** This study was conducted to examine the mediating role of resilience in the relationship between social exclusion and sleep status of refugee children.

**Materials and Methods:** This study is a descriptive and relational study. The data were obtained through "Child Information Form", "Ostracism Experience Scale for Adolescents", "Sleep Disturbance Scale for Children" and "Child and Youth Resilience Measure". A total of 791 refugee children were included in the study. The mediating role of resilience in the relationship between social exclusion and sleep status of refugee children was examined with Process Macro programme.

**Results:** Social exclusion has a statistically significant positive effect on sleep disturbance ( $\beta_1=0.960$ ;  $p<0.001$ ). 92% of the change in sleep disturbance score is explained by social exclusion score ( $R^2=0.920$ ). The resilience is significantly negatively correlated with social exclusion ( $\beta_1=-0.920$ ;  $p<0.001$ ). The social exclusion explains 84% of the resilience score ( $R^2=0.840$ ). If social exclusion increases by one point, there will be a 0.430 increase in sleep disturbance scores ( $\beta_1=0.430$ ;  $p<0.001$ ). If resilience increases by one point, there will be a 0.570 decreases in sleep disturbance scores ( $\beta_1=-0.570$ ;  $p<0.001$ ). The social exclusion and resilience scores explain 98% of sleep disturbance scores ( $R^2 = 0.980$ ).

**Conclusions:** In our study, it was found that children's resilience status played an important mediating role in the relationship between social exclusion and sleep status. It was detected that children with good adaptation skills and coping capacities had less impairment in sleep quality and duration. It was found that refugee children who were isolated and excluded from the society were negatively affected with respect to their sleep patterns whereas children who were not excluded and ignored in the society they lived in had better coping skills and fewer sleep disturbances.

**Key Words:** Refugee children, Sleep, Social exclusion, Resilience

### Öz

**Amaç:** Bu çalışma, mülteci çocukların sosyal dışlanma ve uyku durumları arasındaki ilişkide dayanıklılığın aracı rolünü incelemek amacıyla yapılmıştır.

**Materyal ve Metod:** Bu çalışma tanımlayıcı ve ilişkisel bir çalışmadır. Veriler "Çocuk Bilgi Formu", "Ergenler için Dışlanma Deneyimi Ölçeği", "Çocuklar için Uyku Bozukluğu Ölçeği" ve "Çocuk ve Genç Dayanıklılık Ölçeği" aracılığıyla elde edilmiştir. Çalışmaya toplam 791 mülteci çocuk dahil edilmiştir. Mülteci çocukların sosyal dışlanma ve uyku durumu arasındaki ilişkide dayanıklılık durumlarının aracı rolü Process Macro programı ile incelenmiştir.

**Bulgular:** Sosyal dışlanmanın uyku bozukluğu üzerinde istatistiksel olarak anlamlı pozitif bir etkisi vardır ( $\beta_1=0.960$ ;  $p<0.001$ ). Uyku bozukluğu skorundaki değişimin %92'si sosyal dışlanma skoru tarafından açıklanmaktadır ( $R_2=0.920$ ). Sosyal dışlanma ile dayanıklılık arasında negatif yönde anlamlı ilişki olduğu ortaya çıkmıştır ( $\beta_1=-0.920$ ;  $p<0.001$ ). Sosyal dışlanma, dayanıklılık puanının %84'ünü açıklamaktadır ( $R_2=0.840$ ). Sosyal dışlanma bir puan artarsa, uyku bozukluğu puanlarında 0,430 artış olacaktır ( $\beta_1=0.430$ ;  $p<0.001$ ). Dayanıklılık bir puan artarsa, uyku bozukluğu puanlarında 0,570 azalma olacaktır ( $\beta_1=-0,570$ ;  $p<0,001$ ). Sosyal dışlanma ve dayanıklılık puanları uyku bozukluğu puanlarının %98'ini açıklamaktadır ( $R_2= 0.980$ ).

**Sonuç:** Çalışmamızda, sosyal dışlanma ve uyku durumu arasındaki ilişkide çocukların dayanıklılık durumunun önemli bir aracı rol oynadığı bulunmuştur. Uyum becerileri ve başa çıkma kapasiteleri iyi olan çocukların uyku kalitesi ve süresinde daha az bozulma olduğu tespit edilmiştir. Yaşadıkları toplumdaki izole edilen ve dışlanan çocukların uyku düzenlerinin olumsuz etkilendiği, toplumda dışlanmayan ve göz ardı edilmeyen mülteci çocukların baş etme becerilerinin daha iyi olduğu ve daha az uyku bozukluğu yaşadıkları tespit edilmiştir.

**Anahtar Kelimeler:** Mülteci çocuklar, Uyku, Sosyal dışlanma, Dayanıklılık

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## Introduction

According to the report published by the International Organisation for Migration in 2022; it was stated that there are 281 million refugees in the world and this number corresponds to approximately 3.6% of the population (1). It has also been reported by the United Nations High Commissioner for Refugees that 89.3 million people have been forcibly displaced from their homes due to war and conflict (2). Due to the war and conflicts that occurred in Syria in 2011, many people have migrated to Turkey, Morocco, Jordan, Egypt, Iraq and European countries. This situation has caused the biggest refugee crisis. Turkey is one of the countries most affected by this situation (3,4).

It has been found that children and women constitute the group with the largest population among the refugee group that migrated to Turkey. Situations such as the detention of parents or children themselves, witnessing the loss or death of parents, and separation from families have resulted in the emergence of a series of psychological, emotional and social problems in refugee children during their migration with the impact of the war (5,6). Families and children have been reported to experience a range of mental health problems such as depression, post-traumatic stress disorder, anxiety, sleep disturbances and behavioural disorders, despite living for long periods of time in countries where they have sought asylum (7–9). Systematic analyses have highlighted that children's negative experiences such as exposure to violence during migration, war experiences, losses and separations are associated with different mental health problems (5,6). While many studies in literature focus on mental health problems of refugee children, social exclusion, isolation and sleep problems have not been addressed (10–12).

Today, children constitute more than half of the refugee population living in many countries (2). Although children are normally resilient, they are considered to be at risk of physical, psychological and behavioural problems due to past and present adversity (13–15). The differences in the culture and environment they experience in new societies, especially after migration, create adaptation problems (14). Adaptation problems of children in the new culture, their uncertainty about the future and the problems they experience in socialising with peer groups bring the concept of social exclusion to the forefront (16). Social exclusion means the breaking of social ties in the environments where children live. Social exclusion is an important problem for children and young people. This is because social exclusion will negatively affect the relationships that children will establish both now and in the future (17).

In the literature, it is reported that the fear of deportation, feelings of inadequacy, communication problems and stigmatisation experienced by refugee children in the countries where they live cause them to experience more feelings of social exclusion (6,17,18). The fact that children are subjected to long-term exclusion and discrimination by the people who live in their communities may also cause disturbances in their sleep patterns (19).

Refugee children exposed to social exclusion can lead to unhealthy personalities and a risky society, both now and in the future. Children who are ignored and excluded in society may have problems coping with the events they face. It is thought that this may lead to sleep problems. This study was conducted to examine the mediating role of resilience in the relationship between social exclusion and sleep parameters in war-affected refugee children.

## Materials and Methods

### Research type and design

Correlational survey model was used in the design of the study. The reason for using correlational survey model is multidirectional analysis of the interactions between two or more sets of variables (direct and indirect effects) (20). The research data was collected from refugee children who were admitted to the Harran University Hospital during the period 01 June - 31 October 2023.

Harran University Hospital is located in the region with the highest refugee population. At the same time, children make up more than half of the refugee population. For this reason, the research was conducted at Harran University Hospital in Şanlıurfa.

The research was conducted among refugee children who were admitted to the Harran University Hospital's paediatric outpatient departments and clinics for diagnosis, follow-up or treatment between the specified dates.

### Sample selection and sample size of the research

The literature states that the sample size for structural equation modelling should be more than 200 (20,21). The research was carried out with 791 children.

The quota sampling method, which is one of the non-probability sampling methods, was preferred for the sample of the research. The quota sampling method is the method chosen to collect data from groups with certain characteristics living in the society (22).

### Participants and Inclusion Criteria

The research was conducted with children who met the inclusion criteria between the predetermined dates. The inclusion criteria for refugee children include the following.

#### Inclusion Criteria

Refugee children who

- ✓ were between the ages of 13 and 18,
- ✓ migrated after the war that broke out in Syria in 2011,
- ✓ did not have a medical psychiatric diagnosis,
- ✓ were permitted by their parent/legal guardian to participate,
- ✓ had been living in Turkey at least for five years,
- ✓ agreed to participate in the study,
- ✓ were living and residing in the research area,
- ✓ could speak Turkish were included in the study.

### Exclusion Criteria

Refugee children who

- ✓ had a chronic disease (metabolic, diabetes, cardiovascular)
- ✓ had a physical disability such as cerebral palsy, etc.,
- ✓ were younger than 13 years of age,
- ✓ spoke Arabic,
- ✓ children who dropped out of the study were excluded from the study.

At least 869 refugee children were reached by using quota sampling method. A total of 78 refugee children were not included in the study due to the fact that 18 children could not get permission from their parents, 17 children withdrew, 13 children had metabolic problems, 16 children had been staying in Turkey for less than five years and 14 children were diagnosed with diabetes. The study was conducted with 791 refugee children.

### Data Collection

After obtaining the institutional and ethical permission of the study, data were collected from the children and their families in a suitable environment in the clinic and outpatient clinic. Child Information Form, Ostracism Experience Scale for Adolescents, Sleep Disturbance Scale for Children and Child and Youth Resilience Measure were used for data collection. Data collection by using the scales in refugee children was carried out in an average of 30-60 minutes.

### Data Collection Tools

“Child Information Form”, “Ostracism Experience Scale for Adolescents”, “Sleep Disturbance Scale for Children” “Child and Youth Resilience Measure” were used to collect research data.

### Child Information Form

It was created by the researcher through literature review. Child Information Form consists of 6 questions: age of the child, duration of his/her stay in Turkey, destruction of his/her house after the war, destruction of his/her school after the war, loss of life during the war and migration, and number of losses. (10–12).

### Ostracism Experience Scale for Adolescents

The Ostracism scale was developed by Gilman et al. (16) The scale is used to measure the social exclusion and neglect of individuals. The scale has 11 questions. It has two sub-dimensions: ignorance and exclusion. The higher the ignoring score of children, the more ignoring they are exposed to. As children's exclusion scores increase, the amount of exclusion they are exposed to decreases. Children score between 11 and 55 points on the scale. The Turkish validity and reliability study of the scale was conducted by Mercan. As a result of the factor analysis, the Cronbach's alpha of the scale was 0.71-0.88 in the scale (23).

### Sleep Disturbance Scale for Children

The Sleep Scale was developed by Bruni et al. Bruni et al. used the scale to determine the sleep status of children in the last six months (24). The scale consists of 26 items. Each question is a five-point Likert scale. The scale consists of six sub-dimensions. These are; Disorders of initiating and maintaining sleep (DIMS), Sleep breathing disorders (SBD), Disorders of arousal (DA), Sleep wake transition disorders (SWTD), Disorders of excessive somnolence (DOES), Sleep hyperhydrosis (SHY). Children's sleep scores range from 26 to 130 points. The sleep scale also measures the children's sleep onset time and sleep duration. The Turkish validity and reliability study of the sleep scale was conducted by Akçay et al. The Cronbach's alpha value, which was examined to test the internal consistency of the scale, was found to be 0.82 (25).

### Child and Youth Resilience Measure

The short form of the Resilience Scale was developed by Liebenberg et al. (26). The resilience scale consists of 12 items. Each item is answered in a five-point Likert scale. Children get 12-60 points from the resilience scale. The Turkish validity and reliability study of the scale was conducted by Arslan. As a result of the research, Cronbach's alpha value was determined as 0.91 (27).

### Ethical Considerations

Institutional permission was obtained from a university hospital where the highest number of refugee children were followed up in order to conduct the study. Ethical approval was obtained from Harran University Ethics Committee (date:31/05/2023, no:2023/82). Refugee children and their families were informed about the research. In order to conduct the research, verbal and written consents were obtained from the children and their parents. The research will be conducted according to the Declaration of Helsinki and the results will be used for scientific purposes.

### Data Analyses

The research was analysed using the SPSS programme. The normal distribution of the data was based on kurtosis and skewness values. The mean, standard deviation, number and percentage of variables obtained from refugee children are presented. The significance level of the tests was based on  $P < 0.050$ . Cronbach's alpha was obtained for each scale. In the second stage, structural equation modelling was performed using the AMOS package program. The total score of the child sleep disturbance scale was obtained from 26 questions, the social exclusion scale from 11 questions and the resilience scale from 12 questions. As the skewness of the model was less than eight, it was normally distributed. The study used the mediation model. In the mediation model, 5000 samples and 95% confidence intervals were analysed using the bootstrap method (28,29).

As a result of the structural equation modelling, the fit indices were found to be at an acceptable level. Goodness of fit indices;  $\chi^2/df$ : 4.949, RMSEA: 0.071, GFI: 0.972, CFI: 0.992, NFI: 0.990, IFI: 0.990.

**Results**

The mean age of the refugee children participating in the study was  $14.3 \pm 2.45$  years. It was found that the mean number of people the children had lost during the war and migration was  $0.81 \pm 0.9$  and that they had been in Turkey for an average of  $6.61 \pm 1.04$  years. It was found that 52% of the refugee children were females. Among refugee children, 52% reported experiencing loss, 44% reported that

their homes had been destroyed and 43% reported that their schools had been destroyed as a result of war and conflict (Table 1).

It was found that the mean score of refugee children was  $14.76 \pm 5.11$  for ignorance and  $19.2 \pm 5$  for exclusion. The mean resilience score of the children was found to be  $37.57 \pm 12.08$ . It was found that the mean scores of children were  $21.01 \pm 3.44$  for disorders of initiating and maintaining sleep,  $8.95 \pm 3.23$  for sleep breathing disorders,  $9.15 \pm 3.43$  for disorders of arousal,  $17.99 \pm 5.69$  for sleep-wake transition disorders,  $14.64 \pm 5.43$  for disorders of excessive somnolence and  $6.03 \pm 2.15$  for sleep hyperhydrosis. It was found that mean sleep disturbance total score of refugee children was  $77.77 \pm 21.8$  (Table 2).

**Table 1.** Distribution of Demographic Characteristics of Refugee Children

	n	%	
<b>Gender</b>	Female	414	52
	Male	377	48
<b>Loss of Life After the war</b>	No	381	48
	Yes	410	52
<b>The State of Destruction of His House After the War</b>	No	446	56
	Yes	345	44
<b>The State of Destruction of the School After the War</b>	No	448	57
	Yes	343	43
	<b>Mean±SD</b>	<b>Median (Min-Max)</b>	
<b>Age</b>	$14.3 \pm 2.45$	14 (10 - 18)	
<b>How Many Years Has He Lived in Türkiye?</b>	$6.61 \pm 1.04$	7 (4 - 9)	
<b>Number of Losses</b>	$1.0 \pm 0.9$	1 (0 - 7)	

**Table 2.** Scale Mean Scores of Refugee Children

	Mean±SD Values of Refugee Children	Median (Min-Max) Values of Refugee Children	Min-Max Values of the Scales
<b>Ostracism Experience Scale</b>	$33.96 \pm 5.20$	33 (11-55)	(11-55)
Ignorance	$14.76 \pm 5.11$	16 (7 - 25)	(5 - 25)
Exclusion	$19.20 \pm 5.0$	19 (11 - 28)	(6 - 30)
<b>Child and Youth Resilience Measure (CYRM-12)</b>	$37.57 \pm 12.08$	38 (15 - 56)	(12 - 60)
<b>The Sleep Disturbance Scale For Children (SDSC)</b>	$77.77 \pm 21.8$	75 (43 - 117)	(26 - 130)
Disorders of initiating and maintaining sleep (DIMS)	$21.01 \pm 3.44$	21 (14 - 29)	(7-35)
Sleep breathing disorders (SBD)	$8.95 \pm 3.23$	9 (3 - 15)	(3 - 15)
Disorders of arousal (DA)	$9.15 \pm 3.43$	9 (3 - 39)	(3 - 15)
Sleep wake transition disorders (SWTD)	$17.99 \pm 5.69$	17 (8 - 35)	(4- 20)
Disorders of excessive somnolence (DOES)	$14.64 \pm 5.43$	14 (5 - 24)	(5 - 25)
Sleep hyperhydrosis (SHY)	$6.03 \pm 2.15$	6 (2 - 10)	(2 - 10)

While there was a positive relationship between exclusion from the social exclusion sub-dimensions and psychological resilience scores of refugee children, there was a negative relationship with the ignorance sub-dimension. While there was a positive correlation between exclusion and sleep disturbance among the social exclusion sub-dimensions of refugee children, there was a negative correlation between ignorance and sleep disturbance. There was a positive relationship between children's psychological resilience scores and sleep disturbance (Table 3).

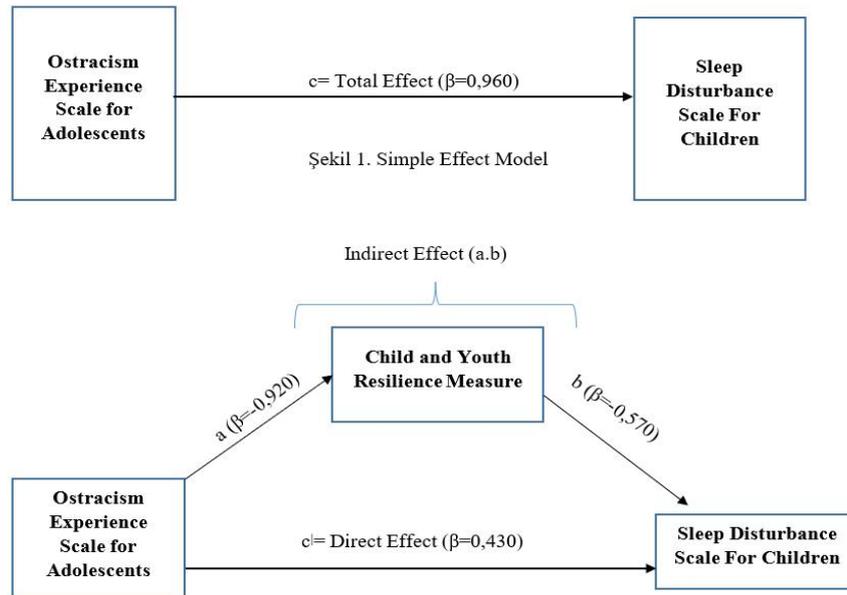
**Structural Equation Modelling (SEM) Analysis Results**

This SEM sought to examine whether resilience mediates a relationship between social exclusion and sleep problems in refugee children. First, a measurement model was established between social exclusion and sleep disturbance and the relationship between the scales was examined. The measurement model is shown in the diagram below (Figure 1).

**Table 3.** Correlation Between Scale Mean of Scores of Refugee Children

	Ignorance	Exclusion	Child and Youth Resilience Measure (CYRM-12)	Disorders of initiating and maintaining sleep (DIMS)	Sleep breathing disorders (SBD)	Disorders of arousal (DA)	Sleep wake transition disorders (SWTD)	Disorders of excessive somnolence (DOES)	Sleep hyperhydrosis (SHY)	The Sleep Disturbance Scale for Children (SDSC)
Ignorance*		-,897**	-,926**	-,749**	-,852**	-,839**	-,829**	-,863**	-,790**	-,886**
Exclusion***			,916**	,770**	,867**	,862**	,828**	,880**	,812**	,901**
Child and Youth Resilience Measure (CYRM-12)				,745**	,872**	,851**	,840**	,878**	,813**	,899**

\*\* : Correlation is significant at the 0.01 level (2-tailed).; \* : level of ignorance increases as score increases; \*\*\* : level of exclusion increases as score decreases.



**Figure 1.** The measurement model is shown in the diagram below

**Table 4.** Measurement Model Coefficients

Dependent Variable	Independent Variable	$\beta_1$	$\beta_2$	p	R <sup>2</sup>
Sleep Disturbance	Social Exclusion	0.960	1.585	P<0.001*	0.92

$\beta_1$ ; Standardized regression coefficients,  $\beta_2$ ; Unstandardized regression coefficients, \*p<0,05; t test result for the significance of the regression coefficients

**Table 5.** Correlation Coefficients between Variables

Dependent Variable	Independent Variable	$\beta_1$	$\beta_2$	p	R <sup>2</sup>
CYRM	Social Exclusion	-0.920	-3.840	P<0.001	0.84
SDSC	Social Exclusion	0.430	0.713	P<0.001	0.98
	CYRM	-0.570	-0.225	P<0.001	

$\beta_1$ ; Standardized regression coefficients,  $\beta_2$ ; Unstandardized regression coefficients, \*p<0,05; t test result for the significance of the regression coefficients, R<sup>2</sup>; Explanatory coefficients

There is a significant positive effect of social exclusion on sleep disturbance. ( $\beta_1=0.960$ ;  $p<0.001$ ). If a refugee child's social exclusion from the community increases by 1 point, sleep disturbance score will increase by 0.960 points. 92% of the change in sleep disturbance score is explained by social exclusion score ( $R^2=0.920$ ) (Table 4).

Given that the measured model was significant, the model of the mediating effect of resilience in the relationship between social exclusion and sleep disturbance was established and the diagram of the model is shown in Figure 1. The resilience is significantly negatively correlated with social exclusion ( $\beta_1=-0.920$ ;  $p<0.001$ ). For every 1 point increase in social exclusion, the resilience score decreases by -0.920 points. The social exclusion explains 84% of the resilience score (Table 5).

If social exclusion increases by one point, there will be a 0.430 increase in sleep disturbance scores  $\beta_1=0.430$ ;  $p<0.001$ ). If resilience increases by one point, there will be a 0.570 decreases in sleep disturbance scores  $\beta_1=-0.570$ ;  $p<0.001$ ). The social exclusion and resilience scores explain 98% of sleep disturbance scores ( $R^2 = 0.980$ ). Psychological resilience was found to mediate between social exclusion and sleeping problems in refugee children ( $\beta=0.045$ , CI [0.476-0.578]) (Table 5).

## Discussion

The aim of this study is to evaluate the social exclusion and sleep status of refugee children in a comprehensive manner and to determine what kind of a relationship they have. It is also an important study that shows what kind of an effect resilience levels of children have in this relationship.

Analysis revealed that refugee children's resilience status mediated the relationship between social exclusion and sleep status. It was also found that some losses and separations experienced by refugee children had a significant effect on determining social exclusion and sleep status.

Children and adolescents constitute half of the refugee population in the world. The negative events experienced by refugee children during and after war and migration lead to physical, emotional, social and behavioural problems (2). This situation causes children to grow up in a context of violence and uncertainty, to experience the traumas of loss more deeply, and to engage in efforts to create a future in an uncertain world in the countries where they live (30,31). Children are always faced with the risk of belonging to the country and community where they are located. In the countries where children settle, they spend the most time with their peers and complete their development with them. Positive peer relationships help refugee children to gain higher self-confidence and social cohesion (32). However, it has been reported in the literature that refugee children are constantly stigmatised and socially excluded by their friends and peers with whom they play in the society they migrate to (7,33). It has also been stated that they are constantly subjected to exclusion, and isolation in the edu-

cation system, society and social environments in the countries they live in (33,34). In particular, studies conducted in Australia have shown that children are excluded by their peers and society and are exposed to social isolation (30,31). In our study, it was found that refugee children were socially stigmatised, excluded and exposed to discrimination, similar to the results in the literature. Social exclusion experienced by children was found to be an important factor on their sleep status. It was found that children's social exclusion status explained 92% of their sleep disturbances.

It was found that the society's ostracism and ignorance of children were effective triggers of sleep disturbances. It is thought that this is due to the fact that children witnessed the destruction of their homes, schools and cities during the war.

Today, the situation of conflicts and wars in many parts of the world is clearly visible. Ongoing wars and conflicts cause the victims to display high levels of aggressive behaviour among themselves. However, in terms of mental health, it is known that war affects children's adaptation, self-concept, resilience, psychological resilience and quality of life (35). Children's ability to cope with difficult and unpredictable events such as war and conflict, adaptation and progress brings the concept of resilience to the forefront (36). Challenging stressors such as exposure to war and conflicts, loss of family members or separation from family members affect the psychological resilience of refugee children (14,18). In particular, it has been found that children cannot cope with the negative events they experience after the war, they are vulnerable to negative emotional events and cannot recover (7,18). In our study, it was found that refugee children could not cope with negative events after war and migration, they were constantly emotional, and they were constantly obsessed with past events. These conditions were found to be an important trigger for sleep disturbances and explained 84% of sleep disturbances. It is thought that children's obsession with past events, their inability to cope with the processes and their constant emotional state may be influenced by their loss and separation from their families.

Psychological and social distress among children who fled or were displaced by the war in Syria can lead to a wide range of emotional, cognitive and behavioural problems (18,37,38). Especially in displaced families, the social fabric of the society is impaired and life begins in a social isolation. Families and children try to adapt to the social structure, culture, and language in their new settlements. However, the sense of alienation, loss of identity, isolation and loneliness in the new country of settlement lead to social exclusion (17,38,39). Children's feelings of being ignored and excluded in social and educational areas in the countries where they live lead to social isolation. This situation reduces children's capacity to adapt to new situations, affects the healing process and increases the frequency of cognitive and emotional problems (18,38-40). As a matter of

fact, our research results also show that children are ignored and excluded in our country. The fact that children are ignored and excluded negatively affects their adaptation capacity and recovery in the country. It has been found that children who are excluded and ignored in Turkish society experience more emotional, mental and social problems. It is thought that children's witnessing traumatising events (death, injury, violence, explosion) at a young age and constantly remembering these events are effective in this situation.

In the literature, there is no research examining the relationship between social exclusion and sleep disturbance in refugee children. This is the first time that the mediating role of resilience in the relationship between social exclusion and sleep disturbance has been examined. In our study, it was found that resilience played a mediating role between children's sleep status and social exclusion. It was found that the isolation of children in their settlements and their exclusion from the society caused deterioration in sleep patterns, quality and deprivation. It was found that as children's coping skills and adaptation capacities increased, they were less isolated from the society and experienced fewer sleep disturbances.

### Conclusion and Recommendations

There are four important results of this study. The first important result is that children who are less excluded and isolated from the society have less impairment in their sleep patterns and quality. The second important result is that it has been found that as children's coping skills and adaptation capacities increase, there occurs an improvement in their sleep status. The third important result was that children who were not excluded and ignored in the society they lived in had better coping skills and less deterioration in their sleep status. It was found that children's resilience played an important mediating role in the relationship between social exclusion and sleep status.

In line with the results of this research, it may be recommended to conduct studies in which different psychotherapy and behavioural trainings are used to solve social exclusion and resilience, which are important factors in the sleep status of refugee children. It has been found that refugee children in the world are exposed to traumatic events such as war and migration and that sleep disturbances continue despite the passage of time. It is recommended that longitudinal and experimental studies should be conducted to increase the coping skills and adaptation capacities of refugee children living in many countries and to reduce ignorance and exclusion status.

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**Ethical Approval:** Ethical approval (date:31/05/2023, no:2023/82) was obtained from the ethics committee of a university. Institutional permission was obtained from the Department of Pediatrics of the university.

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#### Author Contributions:

Concept: M.E.D.

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Design : M.E.D., V.K., F.K.

Data acquisition: M.E.D.

Analysis and interpretation: M.E.D.

Writing manuscript: M.E.D., V.K., F.K.

Critical revision of manuscript: M.E.D., V.K., F.K.

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