

# A Systematic Review of the Factors Influencing the Risky Behaviors of Syrian Forced Migrant Children and Adolescents in Turkey.

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## Systematic Review

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# Abstract

The present study aimed to systematically review and synthesize research investigating the risky behaviors of Syrian children living in Turkey. The study was conducted through a systematic review of articles published in the Scopus database between 2011 and the present day, and met the STROBE reporting criteria. The inclusion criteria for studies in the systematic review were established, and studies that focused on Syrian-origin forced migrant child-adolescents aged 7–18 years and investigated risky behaviors without a clinical diagnosis and treatment purpose were included. Four studies with 32 citations and a sample of 790 children were examined. The study revealed issues in measuring risky behaviors in studies on this topic, primarily involving studies that define risky behaviors as emotional and behavioral problems and studies that examine or correlate these behaviors with psychiatric, psychological, socio-demographic, and acculturative factors. The study concluded that there are numerous factors influencing risky behaviors, including those related to traumatic life events due to war, psychopathology, acculturation-related factors, and socio-demographic factors. The most significant finding highlighted in the study is the need for methodological improvements and context-specific studies to be repeated in future research, to ensure statistical generalizability and clinical implications in research on this subject.

## 1. Introduction

Young forced migrants face significant life challenges that can have detrimental impacts on their mental health. These difficulties include losing a family member in armed conflict, separation from loved ones, being unaccompanied, experiencing or witnessing torture, and facing social exclusion, poverty, discrimination, and acculturative stress after migrating to a new country.

The pre- and post-migration challenges are well documented in the literature, but they do not encompass all the difficulties faced by forced child-adolescent migrants (Bennouna, et al., 2020). A meta-analysis conducted by Fazel et al., (2012) which included 5,776 forced migrant children, found that exposure to violence in a newly migrated community poses a significant risk to their mental health. Furthermore, Lustig et al. 's (2004) systematic review suggests that challenges during migration should also be considered as risk factors for mental health in forced migrant children. Additionally, research by Reijneveld et al., (2005) conducted with unaccompanied forced migrant adolescents detained in state facilities in the Netherlands, found that socially restrictive facility rules negatively affected their mental health. Therefore, it is crucial to consider the diverse range of challenges faced by forced migrant children and provide them with appropriate support and resources to promote their mental health and well-being.

In his research, Hollins (2007) posited that the lack of social support networks, inability to communicate with parents effectively, and the adverse effects of age all contribute to the poor mental health of unaccompanied forced migrant adolescents. Although studies in the literature can serve as reference points for identifying factors that negatively affect the mental health of forced migrant children and adolescents, no universally agreed-upon generalizable factors exist. However, risky behaviors emerge as psychological and social problems that result from or can lead to psychological disorders following the aforementioned life challenges (Halcón et al., 2004; Geltman et al., 2005; Horyniak et al., 2016; Hirani et al., 2018; Loughry and Flouri, 2001; Sourander, 1998).

Different conceptualizations of risky behaviors exist in the literature. Bronstein and Montgomery (2011), as well as Gormez et al., (2018) defined risky behaviors as emotional and behavioral problems that are also signs of psychopathology. Other researchers define risky behaviors as emotional and behavioral problems that harm mental and physical health, including risky sexual behaviors, substance use, and reckless driving (Owens et al., 2020). Emotional problems involve internally suppressing negative emotions without externalizing them, leading to social withdrawal and somatic problems. By contrast, behavioral problems involve directing negative emotions outward towards others.

Studies on the factors influencing risky behaviors in children and adolescent forced migrants have been conducted using diverse research designs, questions, hypotheses, and results. These studies highlight the importance of understanding that the factors influencing risky behaviors cannot be generalized and are context specific. Vasic et al. (2021) emphasized that untreated mental health problems, stressful living conditions, and insufficient social support can increase the risk of alcohol and substance use among children and adolescent forced migrants. Similarly, Koumantakis et al. (2022) highlighted that ethnic differences are significant risk factors for alcohol and substance use among forced children and adolescents.

A study conducted by Martinez et al. (2018) on 1,383 Mexican male migrants who applied for asylum and were forcibly detained in state facilities until their applications were processed found that acculturative stress affected risky sexual behaviors in this group. Fang and colleagues' (2020) research on Chinese adolescents migrating due to climate reasons confirms Martinez's findings. As the duration of settlement in the newly migrated region increased, the scores for risky behaviors decreased, and certain factors prevented risky behaviors during the resettlement process. These factors included the level of development of living standards in the settlement area and established peer relationships.

It is important to note that research on the factors influencing risky behaviors in children and adolescent forced migrants is ongoing, and more research is needed to fully understand the complexities of this issue.

These studies are of utmost importance as they indicate that the relationship between acculturative stress and risky behaviors is not exclusive to forced migrant groups. Furthermore, a study conducted by Lorenzo et al. (2017) on adolescent migrants found that intergenerational differences significantly impact risky behaviors. The findings of Ceri et al. (2017) support those of Lorenzo et al. (2017) and studies conducted on child and adolescent migrants confirm the results of research conducted on child and adolescent forced migrants (Chimienti et al., 2019; Rizk et al., 2023; Prilletsen, 2008; Fronfelker et al., 2020).

Most studies on child-adolescent forced migrants examine risky behaviors by linking them to individual psychopathology, suggesting that these behaviors result from psychopathology and also impact the continuation of psychopathologies (Lustig et al., 2004; Geltman et al., 2000; Geltman et al., 2005; Sourander, 1998; Bronstein and Montgomery, 2011; Gormez et al., 2018).

Although there are numerous studies in the international literature that investigate the factors that influence risky behaviors in child-adolescent forced migrants, research conducted in Turkey on this topic is scarce. It is essential to explore this subject in Turkey because it is one of the countries with the highest number of forced migrants relative to its population, and Syrian individuals under temporary protection status constitute a significant portion of these migrant groups. According to data from the Turkish Ministry of Interior's Migration Directorate in September 2023, 1,611,265 Syrian children in Turkey are under temporary protection status and aged between 0–18 years. The aim of this study was to systematically review the limited research on the risky behaviors of children living in Turkey and synthesize the information obtained. The following research questions were formulated and the research process was initiated to answer them.

### **Research Question 1**

Does the psychopathology of Syrian children and adolescents impact their engagement in risky behaviors?

### **Research Question 2**

If Syrian children and adolescents in Turkey have experienced traumatic events related to the Syrian Civil War, is this a factor in their engagement in risky behaviors?

### **Research Question 3**

How do the sociodemographic characteristics of Syrian children and adolescents in Turkey influence their likelihood of engaging in risky behaviors?

## 2. Material and Method

To maintain transparency and impartiality, the author utilized the STROBE reporting criteria before conducting a systematic analysis of relevant studies. Furthermore, specific inclusion and exclusion criteria were established for this systematic review. The studies included in this research adhered to the STROBE reporting criteria and focused on Syrian children and adolescents of forced migrants aged 7–18 years in Turkey, investigating risky behaviors without considering clinical diagnosis and treatment. In this study, the STROBE statement, adapted to Turkish by Babaoğlu et al. and considering cultural differences, was employed (Babaoğlu et al., 2021).

### 2.1. Search Strategy

The publication dates of the articles in the Scopus database ranged from 2011 to September 2023. The rationale for selecting 2011 as the starting point was to mark the commencement of the Syrian Civil War and the initial migration of Syrians to Turkey. The following keywords, abstracts, and article titles were used in the search: Syrian, child, children, minor, minors, adolescents, adolescent, adolescence, youth, mental health, problem, problems, risk, risks, Turkey, and Türkiye.

After obtaining the search results, filtering was performed. The preferences for filtering included document type as articles; subject area as medicine, psychology, social sciences; keywords such as refugees, Syria, adolescent, child, Turkey, mental health, child, Syrian, publication status as published; and the country where the study was conducted as only Turkey.

The inclusion criteria for the study were as follows: the research must have been conducted with a participant group of Syrian children and adolescents of forced migrants aged 7–18 years in Turkey, the research must have been conducted with high-quality scientific reporting, meeting the STROBE reporting criteria, and the research must have been conducted without clinical diagnosis and treatment purposes. The exclusion criteria were as follows: studies published more than 5 years ago, studies that did not meet the STROBE reporting criteria, and studies that did not fulfill any of the inclusion criteria.

## 3. Results

Twenty-nine articles were retrieved based on the research strategy outlined in this study, a total of 29 articles were retrieved. These articles were published between 2015 and the present, and have received a cumulative 654 citations according to the Scopus database.

We excluded studies that did not meet our inclusion criteria (Fig. 1). Of the 20 excluded studies, four were included in our analysis based on the STROBE criteria. The remaining 25 studies were excluded. The details of the included studies, which have received a total of 32 citations, are presented in Table 1. The participants in these studies ranged in age from seven to 18 years, with a total of 790 participants.

**Table.1: Included Studies**

Citation	Year	Sampling	Population type	Age range	Sample	Scale measuring risky behaviors	Comparison group
Duren&Yalçın <sup>28</sup>	2020	Convenience	Adolescents	12–18	321	SDQ	No
Çeri&Nasıroğlu <sup>29</sup>	2018	Convenience	Child&adolescents	7–17	77	SDQ	No
Karadag&Ogutlu <sup>30</sup>	2021	Convenience	Adolescents	12–16	62 Syrian&66 Turk	SDQ	Yes-Turkish adolescents.
Erucar et al., 2019 <sup>31</sup>	2019	Convenience	Child&adolescents	8–17	322	SDQ	No

### 3.1. Demographic Statistics

The ages of the children participating in the study ranged from 7 to 18 years (Duren and Yalçın, 2020; Çeri and Nasıroğlu, 2018; Karadag and Ogutlu, 2021; Erucar et al., 2019). In addition, Erucar et al. (2019) found that Syrian children who participated in the study were born in Syria and sought refuge in Turkey during the war. Furthermore, the study conducted by Çeri and Nasıroğlu (2018) was carried out with Syrian children who sought refuge in Turkey and continued their education there. Similarly, the participants in the study by Duren and Yalçın (2020) were also children and adolescents who sought refuge from Syria to Turkey. In the study by Karadag and Ogutlu (2021) while there is no specific information on this matter, all Syrian-origin children and adolescents who participated in the research mentioned that they had been subjected to or witnessed torture or violence during the war. Considering this information, Karadag and Ogutlu's (2021) participant group of Syrian origin also sought refuge from Syria to Turkey.

Based on the observations made regarding the participant groups, it was determined that all had experienced traumatic life events resulting from the war. Furthermore, as reported in previous studies, the participant groups were identified as first-generation forced migrants. All studies were carried out with Syrian-origin children and adolescents attending school in Turkey. However, no specific school-related factors were created for the participants and they were not used in the analyses (Duren and Yalçın, 2020; Çeri and Nasıroğlu, 2018; Karadag and Ogutlu, 2021; Erucar et al., 2019).

Despite the absence of school-related factors, two of the studies, Karadag & Ogutlu, and Çeri & Nasıroğlu conducted an analysis to measure the impact of parental education status on the risky behaviors of children. The results of this analysis showed that an increase in parental education level was inversely correlated with risky behaviors in children (Karadag and Ogutlu, 2021). Additionally, having a father with a low education level was found to enhance children's risky behavior scores (Çeri and Nasıroğlu, 2018).

Based on the aforementioned studies, it is evident that participants' employment status and the economic status of their households were not explicitly inquired about. However, Karadag and Ogutlu's study (2021) queried participants about their parents' employment status. Furthermore, none of the studies probed the number of people residing in participants' households or the dependent ratio per adult in the household (Duren and Yalçın, 2020; Çeri and Nasıroğlu, 2018; Karadag and Ogutlu, 2021; Erucar et al., 2019). The question of dissatisfaction with settling in Turkey was only posed in Çeri and Nasıroğlu's study (2018), and was found to have a positive association with risky behaviors. These factors, which have been demonstrated in the literature to have an impact on the mental health and risky behaviors of children and adolescents, were addressed in some of the studies reviewed. However, some of these factors were not queried in all the studies, which creates a deficiency in comprehending and explaining the risky behaviors of child-adolescent forced immigrants of Syrian origin in Turkey.

## 3.2. Risky Behaviors

In the studies included in this review (n = 4, sample size = 790), risky behaviors were reported as emotional and/or behavioral psychiatric problems. To assess these risky behaviors, the validated and reliable Turkish version of the SDQ scale was used in all studies (n = 4, sample size = 790) (32). The sub-factors of the scale, which measure these behavioral problems, include behavioral, emotional, peer relationship, and social behavior problems. A score above the cutoff point for each sub-factor indicates a psychological problem in that factor, whereas a score above the total cutoff score is interpreted as a symptom of psychopathology in the individual.

**Table.2: Factors that increase risky behavior**

Risk Factors						N Total
Duren&Yalçın <sup>28</sup>	War related traumatic events*					321
Çeri&Nasıroğlu <sup>29</sup>	Parent's maltreatment*	Having Less educated father*	Being girl*	Not being satisfied in resettlement*		77
Karadag&Ogutlu <sup>30</sup>	War related traumatic events*	Anxiety*	Depression*	Stress*	Parents less schooling years*	62
Erüyar et al., 2019 <sup>31</sup>	Perceived negative parental attitudes*	Insecure attachment relationships with parents*				322
*p<.05						

Duren and Yalçın (2020) drew attention to the impact of war-related traumatic life events on risky behaviors, highlighting the importance of building social trust in forced immigrants to prevent the negative effects of traumatic experiences. The concept of social trust refers to forced immigrants' confidence in people living in society and feeling safe among them.

Furthermore, Çeri and Nasıroğlu (2018) identified psychiatric disorders and risky behaviors in Syrian child-adolescent forced immigrants who have been in Turkey for seven years. The main risk factors contributing to risky behaviors in this population are parental maltreatment, fathers with low education levels, being female, and dissatisfaction with settling in Turkey.

Conversely, Karadag and Ogutlu's study (2021) focused on the association between sociodemographic and psychiatric factors and risky behaviors. They found that depression, anxiety, and stress scores are associated with risky behaviors, but also noted that Syrian child-adolescent forced immigrants have difficulty forming relationships with their Turkish peers and experience higher emotional, behavioral, and psychiatric problems, even though there is no statistically significant difference in sociodemographic variables (p > .05). Erüyar et al. (2019) examined the influence of fortifying and jeopardizing the mental health of Syrian child-adolescent. The researchers discovered that insecure attachment to parents and perceived negative parental attitudes contribute to the development of risky behaviors and other mental health issues in this population.

## 4. Discussion and Recommendations

In all the studies examined in this research, risky behaviors have been utilized as indicators of mental health problems and/or psychopathological symptoms (Duren and Yalçın, 2020; Çeri and Nasıroğlu, 2018; Karadag and Ogutlu, 2021; Eruyar et al., 2019). Specifically, these behaviors have been linked with psychiatric symptoms in several of the aforementioned studies (Duren and Yalçın, 2020; Karadag and Ogutlu, 2021) and explored in relation to the differences between war-related traumatic life events and psychiatric symptoms. Moreover, these studies have demonstrated that sociodemographic characteristics and acculturative factors can also influence risky behaviors (Çeri and Nasıroğlu, 2018).

While most studies have tended to assume that risky behaviors arise as a result of psychopathology or as a consequence of existing psychopathology, defining them as mental health problems, the study conducted by Eruyar et al. (2019) diverges from this trend. Eruyar et al. have shown that risky behaviors and post-traumatic stress disorder are not associated with war-related traumatic life events but with attachment relationships established with parents during childhood and perceived parenting attitudes. They demonstrated that secure attachment and positive parenting attitudes have a preventive effect on these factors.

However, most research has been conducted using regression and intergroup difference analysis techniques (Çeri and Nasıroğlu, 2018; Karadag and Ogutlu, 2021; Eruyar et al., 2019). Duren and Yalçın's study, (2020) on the other hand, employs mediation analysis as a method, making it unique in terms of methodology.

## **4.1. Characteristics of Research Conducted in Turkey Compared to International Literature**

In this study, the research conducted in Turkey closely aligns with international literature. The study by Eruyar et al. was the only exception. Görmez et al. (2018) study, conducted with Syrian children and adolescents in Istanbul, found that traumatic life events related to war and various psychiatric disorders were associated with risky behaviors. Geltman et al.'s (2000), (2005) research supports these findings. Other studies have also demonstrated the negative impact of parental attitudes and socioeconomic status on the risky behaviors of child and adolescent forced migrants (Belhadj et al., 2014). Bronstein and Montgomery's (2011) systematic study indicates that emotional and behavioral problems as well as sociodemographic factors such as age, gender, and the country of migration are related. Research by Lustig and colleagues (2004) shows that war-related traumatic life events impact stress, coping strategies, and risky behaviors among child and adolescent forced migrants.

## **4.2. Differences in Research Conducted in Turkey on the Topic when Compared to International Literature**

The studies included in this systematic review revealed discrepancies with respect to the international literature on the topic. Specifically, the research inquired into the age of Syrian child- and adolescent-forced migrants, but no study found that age had a significant impact on risky behaviors. However, Sourander (1998) reported an association between older age and increased psychiatric problem scores, which included risky behaviors among child and adolescent forced migrants who applied for asylum in Finland and were kept in shelter centers until their applications were processed. Similarly, Reijneveld and colleagues (2005) found that strict rules in shelter centers for child and adolescent forced migrants in the Netherlands who applied for asylum had a positive effect on their risky behaviors. These two studies share the common characteristic of involving child- and adolescent-forced migrants residing in shelter centers with strict rules. In the context of the systematic review, this finding can be attributed to acculturative factors, as the studies conducted in the Turkish context did not involve forced child and adolescent migrants residing in shelter centers with strict rules.

In all the research conducted in Turkey and examined in this study, it was found that all the participants attended school. While there are studies suggesting that education and educational achievement contribute to the psychosocial well-being of refugee-origin individuals living in Europe (Chimienti et al., 2019), other studies have shown that not being able to

participate in education has an impact on various psychiatric problems in forced child-adolescent immigrants (Blackmore et al., 2020; Bennouna et al., 2020). However, in Lebanon, it was found that attending school did not have a preventive effect on risky behaviors among Syrian children and adolescent forced migrants, but perceived social support was identified as a preventive factor influencing these behaviors (Kheirallah et al., 2020). Additionally, longitudinal research on adolescents in the United States has shown that school belongingness has a preventive effect on risky behaviors (Resnick et al., 1997). Studies have also examined the relationship between school and risky behaviors from different perspectives, such as the factors that contribute to psychological resilience, one of which is school and academic achievement (Werner, 2013). It is widely acknowledged in the literature that simply attending school is not sufficient to promote psychological resilience in adolescents and that additional educational programs conducted within schools can enhance their resilience (Bester and Kuyper, 2020). Consequently, there are studies in the literature that both support and refute the idea that school- and school-related factors have a preventive effect on risky behaviors among forced child and adolescent migrants. However, none of the studies examined in this research investigated the impact of school-related factors on risky behaviors despite the fact that all participants attended school. Therefore, future research should explore the influence of school-related factors on the prevalence of risky behaviors among this population.

#### **4.3. Research on the risky behaviors of Syrian child-adolescent forced migrants in Turkey has identified certain gaps in the existing literature and methodology.**

Frounfeller et al. (2020) highlighted the importance of familial and community-based risks in shaping the risky behaviors of this population. Among these risk factors, living in single-parent families, residing with parents who have psychiatric problems, facing economic hardship, experiencing discrimination, and exposure to violence or witnessing violence in the host country are particularly noteworthy. While Karadag and Ogutlu's (2021) study touched upon the presence of parents with psychiatric illnesses in the families of child adolescents, no other study has examined these factors. Moreover, studies that have investigated the risky behaviors of immigrant children, such as Vollebergh et al.'s (2005) research in the Netherlands, have primarily focused on socioeconomic status as a risk factor. Beiser et al. (2002) also explored generational differences among immigrants. However, Harker's (2001) research has demonstrated the significance of generational differences in shaping the mental health of immigrant adolescents. Lorenzo and colleagues (2017) have also highlighted the potential impact of intergenerational differences on risky behaviors in child-adolescents. Despite the relevance of these factors, none of the studies included in this research investigated them. In light of these findings, it is recommended that future research on Syrian child-adolescent forced migrants in Turkey should consider the impact of familial and community-based risks, as well as generational and cultural differences, on their risky behaviors.

## **5. Conclusion**

It is apparent that multiple factors influence risky behaviors, including trauma-related events associated with war, psychopathology, acculturation, and socio-demographic factors. However, of the four studies included in this research, three analyzed these factors through intergroup differences, correlation, and regression analyses. This represents a methodological deficiency.

Additionally, three of the four studies have qualitatively similar methodologies, literature, and research objectives, repeating each other and international literature. The most significant finding of the study is that for future research to be statistically generalizable and clinically applicable, there is a need for methodological improvement and replication of context-specific studies in research on this topic.

## **6. Limitations**

In the field of refugee law, several legal statuses exist, including refugees, asylum seekers, temporary protection, and secondary protection. In this research, all of these statuses have been collectively classified as "forced migrants." This



categorical approach is problematic because it fails to recognize the distinct rights and obligations associated with each status. To address this issue, this study employs a human-centered perspective of "forced migrant." This approach serves as a conceptual boundary for this study.

Additionally, the legal framework of the Republic of Turkey defines childhood as ending at the age of 18. As such, this study focuses on individuals who have not yet reached their 18th birthday. This age restriction represents another conceptual limitation of this study.

## Declarations

### Ethical Approval

Not applicable

### Funding

Not applicable

### Availability of data and materials

Not applicable

### Conflict Declaration

There is no conflict of interest between the authors.

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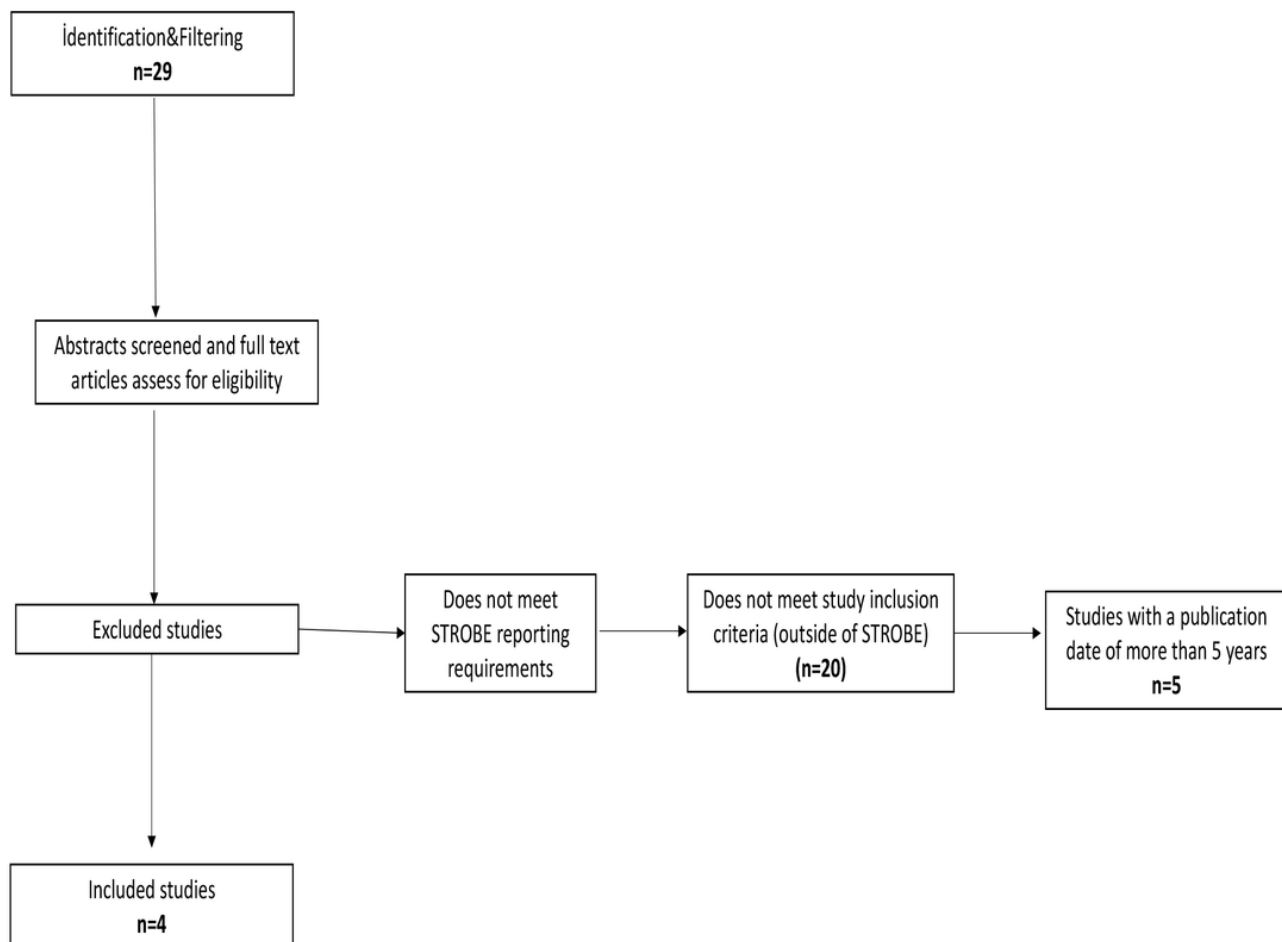
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## Figures



## Figure 1

### Exclusion Diagram Results