

ЮРИДИЧЕСКАЯ ПСИХОЛОГИЯ ДЕТСТВА |
LEGAL PSYCHOLOGY OF CHILDHOOD

Научная статья | Original paper

**Adolescents' self-efficacy in preventing
substance addiction and associated factors**

V. Kaplan¹✉, N. Kapağan²

¹ Harran University, Şanlıurfa, Turkey

² Abdurrahman Şimşek Vocational High School, Şanlıurfa, Turkey

✉ vyslkpln@hotmail.com

Abstract

Context and relevance. Substance addiction is a serious public health problem that can generally occur during adolescence. Since this problem will lead to many more complex problems, it is very important to determine what protective factors adolescents can have in this regard. **Objective.** This descriptive study aimed to assess adolescents' self-efficacy in preventing substance addiction and to identify the associated influencing factors. **Hypothesis.** There is a positive relationship between adolescents' self-efficacy levels for protecting themselves from substance addiction and their addiction protection behaviors. **Methods.** The research was conducted between September and December 2024 in a high school setting. The sample comprised 448 students who voluntarily participated in the study. Data were collected using a personal information form and the Self-Efficacy Scale for Substance Addiction Protection. Descriptive statistics, independent samples t-tests, and ANOVA were used to analyze the data. **Results:** The mean age of participants was 15.49 ± 1.16 years. Of the participants, 46.4% were female, 30.8% were in the 10th grade, and 64% lived in nuclear families. The mean total score on the self-efficacy scale was 101.83 ± 14.82 . Self-efficacy levels were found to be higher among female students, 12th graders, those whose fathers were retired, and those reporting positive family relationships, better parental relationships, and higher income levels. **Conclusion:** The findings indicate that family dynamics, social relationships, and adolescents' self-perception significantly influence self-efficacy in preventing substance use. Programs aimed at enhancing adolescents' development in these domains may contribute to the prevention of substance addiction.

Keywords: adolescence, self-efficacy, substance addiction, prevention, related factors

Acknowledgements. The authors are grateful for all the students who were volunteer for the research.

Каплан В., Капаган Н. (2025)
Самозффективность подростков в профилактике
наркотической зависимости и сопутствующих факторов
Психология и право, 15(3), 90—106.

Kaplan V., Kapağan N. (2025)
Adolescents' self-efficacy in preventing
substance addiction and associated factors
Psychology and Law, 15(3), 90—106.

For citation: Kaplan, V., Kapağan, N. (2025). Adolescents' self-efficacy in preventing substance addiction and associated factors. *Psychology and Law*, 15(3), 90—106. (In Russ.). <https://doi.org/10.17759/psylaw.2025150307>

Самозффективность подростков в профилактике наркотической зависимости и сопутствующих факторов

В. Каплан¹✉, Н. Капаган²

¹ Университет Харрана, Шанлыурфа, Турция

² Профессиональная средняя школа Абдурахмана Шимшека, Шанлыурфа, Турция

✉ vyslkpln@hotmail.com

Резюме

Контекст и актуальность. Наркомания является серьезной проблемой общественного здравоохранения, которая обычно может возникнуть в подростковом возрасте. Поскольку эта проблема приведет к множеству более сложных проблем, очень важно определить, какие защитные факторы могут быть у подростков в этом отношении. **Цель.** Это описательное исследование направлено на оценку самозффективности подростков в профилактике наркотической зависимости и выявление сопутствующих факторов влияния. **Гипотеза.** Существует положительная связь между уровнем самозффективности подростков в плане защиты от наркотической зависимости и их поведением по защите от наркозависимости. **Методы.** Исследование проводилось в период с сентября по декабрь 2024 года в условиях средней школы. В выборку вошли 448 учащихся, которые добровольно приняли участие в исследовании. Данные собирались с использованием формы личной информации и шкалы самозффективности для защиты от наркотической зависимости. Для анализа данных использовались описательная статистика, независимые выборочные t-тесты и ANOVA. **Результаты.** Средний возраст участников составил $15,49 \pm 1,16$ года. Из участников 46,4% — женщины, 30,8% учились в 10-м классе, а 64% жили в нуклеарных семьях. Средний общий балл по шкале самозффективности составил $101,83 \pm 14,82$. Было обнаружено, что уровень самозффективности был выше среди учащихся женского пола, учащихся 12-го класса, тех, чьи отцы были на пенсии, и тех, кто сообщил о позитивных семейных отношениях, лучших родительских отношениях и более высоком уровне дохода. **Заключение.** Результаты показывают, что динамика семьи, социальные отношения и самовосприятие подростков существенно влияют на самозффективность в профилактике употребления психоактивных веществ. Программы, направленные на улучшение развития подростков в этих областях, могут способствовать профилактике наркотической зависимости.

Ключевые слова: подростковый возраст, самозффективность, наркотическая зависимость, профилактика, сопутствующие факторы

Благодарности. Авторы благодарны всем студентам, которые добровольно согласились принять участие в исследовании.

Каплан В., Капаган Н. (2025)
Самоеффективность подростков в профилактике
наркотической зависимости и сопутствующих факторов
Психология и право, 15(3), 90—106.

Kaplan V., Kapağan N. (2025)
Adolescents' self-efficacy in preventing
substance addiction and associated factors
Psychology and Law, 15(3), 90—106.

Для цитирования: Каплан, В., Капаган, Н. (2025). Самоеффективность подростков в профилактике наркотической зависимости и сопутствующих факторов. *Психология и право*, 15(3), 90—106. <https://doi.org/10.17759/psylaw.2025150307>

Introduction

Adolescence is an important transition/development period in an individual's life (Yüzbaşı, Yılmaz, 2022). According to the World Health Organization (WHO), it is a period between the ages of 10—19¹. During adolescence, the individual experiences biological, cognitive, spiritual and social development and changes (Kaynak, Irgit, Çakmak, 2022).

With the biological changes experienced during this period, the adolescent's body gains an adult body appearance with muscle increase, growth in the genitals and hair growth (Papadimitriou et al., 2010; Soliman et al., 2014). In addition, estrogen increases in girls to reach reproductive maturity and maturing eggs initiate the menstrual cycle. In men, testosterone hormone increases and sperm production occurs with the maturation of the erectile glands (Robeva, Kumanov, 2016; Blakemore 2019; Yoon et al., 2022).

According to Piaget, this period is the stage of abstract operations. With cognitive maturation in adolescents, individuals move from concrete thought to abstract thought. As a result, individuals gain the ability to think hypothetically, self-organize and evaluate (Kaplan, Sadock, 1989; Kaufman, Lichtenberger, 2005; Piaget, 1937). While solving their problems, they can judge the society by developing new thoughts, values and some beliefs with a broader perspective (Senemoğlu, 2010; Gander, Gardiner, 2015).

Adolescents are in a state of intense enthusiasm and novelty as a result of spiritual changes. They often go through a challenging process in their feelings, thoughts, decisions and relationships with the environment (Yıldız, 2021). The fact that individuals get sufficient satisfaction from this process and are in a cheerful mood helps individuals to develop healthier solutions to the problems they face (Biswar-Diener, 2006; Park, Peterson, 2008).

During this period, adolescents try to discover their own identity and self and acquire some social skills. In addition, they have started to get closer to the opposite sex and their plans and curiosity about professional skills have increased (Erikson, 1993; Yıldız, 2021). If individuals have undergone a healthy identity development, they can better gain their roles in transition to adulthood and develop stronger social relationships (Yüzbaşı, Yılmaz, 2022). Adolescents experience their first socialization processes in the family environment (Koç, 2004). The family provides a place for the individual in the society and prepares the adolescent for the culture and adulthood (Razon, 2003; Yavuzer, 2005). In the following processes, socialization that starts with the family expands further with the environment of friends and school (Koç, 2004).

Although adolescence is a healthy period in an individual's life, it also contains some risks (Yalçın, Koyuncu, Avşaroğlu, 2022). During adolescence, individuals may experience outbursts of anger, crisis, conflict with the family, confusion within themselves, embarrassment, isolation from society and some negative emotions (Ögel, 2010; Peterson et al., 2003; Raposo, Francisco, 2022) and physical and mental changes may cause the individual to experience difficulties and disrupt social interaction. Adolescents who have not yet reached social and psychological crisis skills may exhibit risky behaviors as a coping method (Jessor, 1992; Senemoğlu, 2010; Şimşek, Çöplü, 2018).

¹ *Adolescent health*. (2024). World Health Organization. URL: <https://www.who.int/health-topics/adolescent-health> (viewed: 15.05.2024).

Substance addiction can be behaviors that they frequently exhibit in dangerous situations (Yalçın, Koyuncu, Avşaroğlu, 2022). Addiction refers to any strong desire, passion or quest (Rosenthal, Faris, 2019). According to Snoek, addicted individuals are myopic and see the substance as a short-term relief or reward to get away from problems (Snoek, 2023). The substance reduces the pain of the individual, gives them a short-term pleasure and distracts them from negative emotions. With this short-term relief, it can lead to loss of self-control in the long term, loss of many skills, unhealthy state, deterioration in social relations and dangerous behaviors (Özcan, Gürhan, 2016). Addiction now becomes a chronic disease in the life of the individual and leaves a destructive effect that becomes a routine (Snoek, 2023). It is known that the most commonly used substance is cannabis and the average age of cannabis use is 17 years².

According to some studies, it has been determined that adolescents encounter risk factors does not mean that they will show a risky behavior (Balık-Okutan, 2017). The formation of addiction can be prevented by identifying the strong dynamics that keep the individual away from the addictive substance (Witkiewitz, Tucker, 2024). In our research, it was aimed to find some dynamics that make adolescents strong in protecting adolescents from substance addiction. Looking at the literature, the presence of high self-efficacy is a situation that makes the individual strong. Self-efficacy is the belief that an individual has the ability to implement the behaviors required to achieve a desired state (Kadden, Litt, 2011). It is thought that positive family environment and family relationships, friendship environment and school environment (Yıldız, 2021) are effective at the beginning of some of the social environments where the individual spends the most time to protect from substance addiction (Rowe, 2012; Wells et al., 2013). While individuals with a positive environment have a healthier adolescence period, the negative family environment negatively affects the development of the adolescent against risky situations (Yıldız, 2021). In addition, it has been determined that the financial opportunities of the adolescent, his/her positive view of himself/herself and course success are strong dynamics that protect the individual from substance addiction by supporting self-efficacy (Kirk, Schutte, Hine, 2008; Toraman et al., 2023).

In line with this purpose, the following questions were sought to be answered in the study:

- What is the self-efficacy of adolescents towards protection from substance addiction?
- What are the factors associated with adolescents' self-efficacy to protect substance addiction?

Materials and methods

Purpose and Method of the Study

The present study was conducted as a descriptive study to determine adolescents' self-efficacy and related factors for protection from substance addiction.

Sample and Inclusion Criteria

The sample of this study consists of a total of 450 students in a high school. The participants were between the ages of 14-18 and were enrolled in the 9th, 10th, 11th, and 12th grades of the high school. Inclusion criteria:

- Being a high school student
- Being between 14 and 18 years of age
- Not having received any prior training on the research topic

² Turkey, Country Drug Report 2019. (2019). The European Union Drugs Agency (EUDA). URL: https://www.euda.europa.eu/publications/country-drug-reports/2019/turkey_en (viewed: 15.05.2024).

Data Collection

The study's data were collected between September 2024 and December 2024 in a high school located in a city in Turkey. Data were collected by using face-to-face method. The study was started by first informing potential participants about the purpose and process of the research. Then, individual questionnaires were filled out with participants who agreed to participate in the study. It took approximately 10 minutes for each participant to fill out the questionnaires.

Data Collection Tools

Personal identification form and Self-Efficacy Scale for Substance Addiction Protection were used in the study.

Personal information form: The individual identification form was developed by the researcher. There are 14 questions in the form. The questions are about socio-demographic characteristics such as age, gender, class, family type, and subjective evaluations such as self-identification, relationship between parents, relationship with mother and father, course success, and relationship with friends (Teze, Ayhan, 2023; Uzun, Kelleci, 2018).

The Self-Efficacy for Adolescents Protecting Substance Addiction Scale [SEAPSAS]: The scale created by Eker, Akkuş & Kapisız can be applied to high school students in adolescence (Eker, Akkuş, Kapisız, 2013). A five-point Likert scale is used for scoring the scale. The responses to the items are evaluated as '1-I am not sure at all', '2-I am very little sure', '3-I am moderately sure', '4-I am quite sure', '5-I am extremely sure'. While 23 items in the scale are scored positively, the scoring in the control question is '5-I am not sure at all', '1-I am extremely sure'. The minimum score that can be obtained from the scale is 23 and the maximum score is 115. A high total scale score can be interpreted as indicating a high self-efficacy in protecting substance addiction. The scale consists of 4 sub-dimensions. Dimension A, abstinence from drugs/stimulants, has 12 items. Dimension B, abstaining from drugs/stimulants under pressure, has 4 items. Dimension C, seeking help about drugs/stimulants has 4 items. Dimension D, supporting a friend about drugs/stimulants consists of 3 items and the Control question: It is an item that can provide information about self-efficacy even alone. The total Cronbach's alpha value of the scale was found to be 0.81. In this study, the total Cronbach's alpha value of the scale was 0.89.

Data analysis

The suitability of the data for normal distribution was analyzed. Descriptive statistics such as number, percentage, mean values, T test and Anova tests in independent groups were used.

Ethical Principles of Research

This study was approved by a university Social Sciences Ethics Committee (session numbered E-76244175-050.04-392981 and decision numbered 2024/266). The participants were first given information about this study aims and details, and then their verbal and written consent were obtained. Participation was entirely on a voluntary basis. Participants were also informed that they could contact the research team at any time for questions or to discuss the study.

Results

The descriptive characteristics of the 448 students who participated in the study are given in Table 1. The average age of the students was $15,49 \pm 1,16$ years. It was determined that 53,6% of the students were male, 31,9% were 9th grade students and 64,1% had a nuclear family structure. It was determined that 42,4% of the students' mothers were primary school graduates, 38,6% of the students' fathers were secondary school graduates, 98,4% of the students' mothers were housewives and 34,4%

Каплан В., Капаган Н. (2025)
 Самоэффективность подростков в профилактике
 наркотической зависимости и сопутствующих факторов
Психология и право, 15(3), 90—106.

Kaplan V., Kapağan N. (2025)
 Adolescents' self-efficacy in preventing
 substance addiction and associated factors
Psychology and Law, 15(3), 90—106.

of the students' fathers were farmers. It was determined that 61,6% of the student's family had a medium income level, 79,7% of children evaluate their parents' relationship is good and 74,1% had a good relationship with their parents. It was determined that 61,2% of the students had moderate course success, 67,9% had good relationships with friends and 74,8% had a positive self-identification.

Table 1

Descriptive Characteristics of Secondary School Students Participating in the Study

Descriptive Characteristics	Mean	Min-Max
Age	15,49 ± 1,16	14—18
	Number (n)	Percentage (%)
Gender		
Female	208	46,4
Male	240	53,6
Classroom		
9th grade	143	31,9
10th grade	138	30,8
11th grade	122	27,2
12th grade	45	10
Family type		
Extended (nuclear family with grandparents)	97	21,7
Nuclear	287	64,1
Crowded (more than one nuclear family)	64	14,3
Mother's education level		
Illiterate	171	38,2
Primary School	190	42,4
Middle School	74	16,5
High School	13	2,9
Father's education level		
Illiterate	14	3,1
Primary School	141	31,5
Middle School	173	38,6
High School	105	23,4
University	15	3,3
Mother occupation		
Housewife	441	98,4
Worker	7	1,6
Father occupation		
Farmer	154	34,4
Worker	91	20,3

Каплан В., Капаган Н. (2025)
 Самоэффективность подростков в профилактике
 наркотической зависимости и сопутствующих факторов
Психология и право, 15(3), 90—106.

Kaplan V., Kapağan N. (2025)
 Adolescents' self-efficacy in preventing
 substance addiction and associated factors
Psychology and Law, 15(3), 90—106.

Unemployed	31	6,9
Self-employment	146	32,6
Officer	16	3,6
Retired	10	2,2
Perception of income level		
Bad	108	24,1
Middle	276	61,6
Good	64	14,3
Evaluating the relationship between mother and father		
Bad	13	2,9
Middle	78	17,4
Good	357	79,7
Evaluating his/her relationship with parents		
Bad	23	5,1
Middle	93	20,8
Good.	332	74,1
Course success		
Bad	17	3,8
Middle	274	61,2
Good	157	35
Evaluation of Friend relationship		
Bad	20	4,5
Middle	124	27,7
Good	304	67,9
Self-identification		
Positive	335	74,8
Negative	113	25,2
Total	448	100

The total scores of the adolescents who participated in the study are shown in Table 2. The SEAPSAS mean total score of the adolescents included in the study was $101,83 \pm 14,82$ and the sub-dimension scores of the adolescents included in the study were determined as follows; the Staying Away From Substance (General) was $55,14 \pm 8,03$, the Staying Away From Substance (Under Pressure) was $18,72 \pm 2,78$, the Help-Seeking about Substance was $16,11 \pm 4,32$ and the Supporting a Friend about Substance was $11,84 \pm 3,31$.

Table 2

SEAPSAS and subscale mean score		
Scale	X ± SD	Participant's min-max point
SEAPSAS Total	101,83 ± 14,82	23—115
Staying Away from Substance (General)	55,14 ± 8,03	12—60
Staying Away from Substance (Under Pressure)	18,72 ± 2,78	4—20
Help-Seeking about Substance	16,11 ± 4,32	4—20
Supporting a Friend about Substance	11,84 ± 3,31	3—15

Table 3 shows the relationship between the total and sub-dimension scores of the SEAPSAS and personal data. There was a significant difference between the total and sub-dimension scores of the SEAPSAS for female students compared to male students ($p < 0,05$).

Table 3

**Distribution of Total and Subscale Scores of SEAPSAS
and Some Demographic Characteristics**

Features	SEAPSAS Total Mean ± SD	SEAPSAS Staying Away from Drugs / Stimulant Drugs — General Mean ± S	SEAPSAS Staying Away From Drugs/ Stimulant Drugs — Under Pressure Mean ± SD	SEAPSAS Help-Seeking about Drugs/ Stimulant Drugs Mean ± SD	SEAPSAS Supporting a Friend about Drugs / Stimulant Drugs Mean ± SD
Gender					
Female (208)	103,34 ± 12,11	55,88 ± 6,63	19,00 ± 2,22	16,27 ± 4,11	12,18 ± 2,94
Male (240)	100,52 ± 16,73	54,51 ± 9,04	18,48 ± 3,17	15,97 ± 4,49	11,55 ± 3,58
	p = 0,040, t = 2,061	p = 0,066, t = 1,846	p = 0,046, t = 2,000	p = 0,459, t = 0,740	p = 0,041, t = 2,051
Class type					
9th grade (143)	100,03 ± 17,14	54,48 ± 9,45	18,33 ± 3,43	16,02 ± 4,34	11,18 ± 3,47
10th grade (138)	100,94 ± 14,04	54,63 ± 7,88	18,71 ± 2,67	15,90 ± 4,27	11,69 ± 3,29
11th grade (122)	103,95 ± 13,25	56,14 ± 6,71	19,03 ± 2,31	16,34 ± 4,36	12,42 ± 2,98
12th grade (45)	104,48 ± 12,38	56,13 ± 6,62	19,15 ± 1,59	16,40 ± 4,32	12,80 ± 3,30
	F = 2,194, p = 0,088	F = 1,369, p = 0,252	F = 1,803, p = 0,146	F = 0,309, p = 0,819	F = 4,568, p = 0,004
Family type					
Extended (97)	102,03 ± 13,86	54,90 ± 7,39	18,64 ± 2,58	16,54 ± 4,08	11,92 ± 3,17
Nuclear (287)	101,85 ± 15,39	55,26 ± 8,45	18,73 ± 2,90	16,05 ± 4,39	11,79 ± 3,36
Crowded (64)	101,42 ± 13,79	54,98 ± 7,06	18,79 ± 2,53	15,68 ± 4,32	11,95 ± 3,32

	F = 0,033, p = 0,967	F = 0,089, p = 0,915	F = 0,059, p = 0,943	F = 0,820, p = 0,441	F = 0,102, p = 0,903
Mother's Education Status					
Illiterate (171)	102,22 ± 15,12	55,53 ± 8,08	18,84 ± 2,84	16,13 ± 4,32	11,70 ± 3,52
Primary School (190)	100,91 ± 15,35	54,83 ± 8,09	18,68 ± 2,67	15,78 ± 4,66	11,60 ± 3,37
Middle School (74)	103,93 ± 11,76	55,60 ± 7,24	18,78 ± 2,63	16,98 ± 0,28	12,55 ± 2,59
High School (13)	98,15 ± 18,21	52,00 ± 10,52	17,30 ± 4,04	15,61 ± 3,88	13,23 ± 2,58
	F = 1,047 p = 0,372	F = 0,975 p = 0,404	F = 1,261 p = 0,287	F = 1,438 p = 0,231	F = 2,362 p = 0,071
Father's Education Status					
Illiterate (14)	102,00 ± 10,07	56,71 ± 6,42	19,42 ± 1,39	15,57 ± 3,52	10,28 ± 3,36
Primary School (141)	100,46 ± 14,64	54,48 ± 8,24	18,84 ± 2,50	15,51 ± 4,27	11,62 ± 3,31
Middle School (173)	102,64 ± 16,34	55,58 ± 8,51	18,66 ± 3,11	16,57 ± 4,42	11,82 ± 3,58
High School (105)	102,89 ± 12,76	55,48 ± 6,86	18,68 ± 2,58	16,37 ± 4,36	12,35 ± 2,81
University (15)	97,60 ± 15,13	52,53 ± 9,26	17,93 ± 3,49	15,13 ± 3,48	12,00 ± 2,92
	F = 0,869 p = 0,482	F = 0,940 p = 0,441	F = 0,61 p = 0,651	F = 1,523 p = 0,194	F = 1,565 p = 0,183
Mother Occupation					
Housewife (441)	101,88 ± 14,88	55,17 ± 8,05	18,73 ± 2,78	16,12 ± 4,33	11,84 ± 3,33
Worker (7)	98,57 ± 10,76	53,28 ± 6,62	18,42 ± 2,93	15,00 ± 3,36	11,85 ± 1,95
	p = 0,558 t = 0,586	p = 0,537 t = 0,618	p = 0,774 t = 0,284	p = 0,493 t = 0,686	p = 0,991 t = -0,011
Father Occupation					
Farmer (154)	100,22 ± 16,87	54,50 ± 9,12	18,51 ± 3,17	15,35 ± 4,66	11,85 ± 3,39
Worker (919)	102,97 ± 13,09	55,70 ± 6,93	19,07 ± 2,15	16,60 ± 4,19	11,59 ± 3,39
Unemployed (31)	99,25 ± 17,81	54,51 ± 8,93	18,61 ± 3,44	15,70 ± 5,04	10,41 ± 3,69
Selfemployment (146)	103,15 ± 13,39	55,58 ± 7,69	18,69 ± 2,65	16,58 ± 3,79	12,29 ± 3,07
Officer (16)	101,37 ± 9,44	54,75 ± 5,38	19,18 ± 1,93	16,37 ± 3,98	11,06 ± 2,71
Retired (10)	105,50 ± 11,52	56,40 ± 4,90	18,80 ± 2,14	17,20 ± 4,46	13,10 ± 3,10
	F = 1,019 p = 0,406	F = 0,464 p = 0,803	F = 0,561 p = 0,730	F = 1,756 p = 0,121	F = 2,288 p = 0,045
Perception of income level					
Bad (108)	100,63 ± 16,25	54,78 ± 8,59	18,56 ± 3,17	15,63 ± 4,53	11,64 ± 3,48
Medium (276)	103,11 ± 12,82	55,80 ± 7,17	18,96 ± 2,38	16,35 ± 4,14	12,00 ± 3,15

Good (64)	98,28 ± 19,23	52,93 ± 10,05	17,98 ± 3,45	15,85 ± 4,66	11,50 ± 3,67
	F = 3,260 p = 0,039	F = 3,486 p = 0,031	F = 3,475 p = 0,032	F = 1,195 p = 0,304	F = 0,839 p = 0,433
Evaluating the relationship between mother and father					
Bad (13)	91,84 ± 15,51	51,46 ± 9,48	17,84 ± 2,91	12,07 ± 3,66	10,46 ± 4,55
Medium (78)	99,05 ± 14,78	53,37 ± 8,53	18,38 ± 2,52	15,17 ± 4,57	12,11 ± 3,01
Good (357)	102,80 ± 14,63	55,67 ± 7,79	18,83 ± 2,82	16,46 ± 4,18	11,83 ± 3,32
	F = 5,181 p = 0,006	F = 4,088 p = 0,017	F = 1,501 p = 0,224	F = 8,969 p = 0,000	F = 1,397 p = 0,248
Evaluating his/her relationship with his/her parents					
Bad (23)	86,47 ± 22,26	46,00 ± 12,60	17,08 ± 3,94	12,43 ± 5,30	10,95 ± 3,83
Medium (93)	100,05 ± 13,43	54,48 ± 7,31	18,51 ± 2,58	15,29 ± 4,46	11,76 ± 3,41
Good (332)	103,39 ± 13,92	55,96 ± 7,42	18,89 ± 2,70	16,59 ± 4,05	11,92 ± 3,24
	F = 15,830 p = 0,000	F = 18,265 p = 0,000	F = 4,981** p = 0,007	F = 12,737** p = 0,000	F = 0,938 p = 0,384
Evaluation of course success					
Bad (17)	97,47 ± 20,57	52,00 ± 11,02	17,76 ± 3,97	16,23 ± 4,08	11,47 ± 4,28
Medium (274)	100,73 ± 14,56	54,77 ± 7,76	18,66 ± 2,74	15,68 ± 4,51	11,62 ± 3,33
Good (157)	104,21 ± 14,31	56,15 ± 8,04	18,94 ± 2,68	16,84 ± 3,89	12,27 ± 3,13
	F = 3,544 p = 0,030	F = 1,573 p = 0,209	F = 1,573 p = 0,209	F = 3,614 p = 0,028	F = 2,063 p = 0,128
Friend Relationship					
Bad (20)	101,80 ± 13,78	55,40 ± 6,54	18,75 ± 2,29	15,65 ± 4,20	12,00 ± 3,87
Medium (124)	101,28 ± 13,50	55,54 ± 6,69	18,89 ± 2,16	15,38 ± 4,68	11,45 ± 3,32
Good (304)	102,05 ± 15,42	54,97 ± 8,62	18,65 ± 3,02	16,43 ± 4,14	11,99 ± 3,26
	F = 0,120 p = 0,887	F = 0,237 p = 0,789	F = ,329 p = 0,719	F = 2,744 p = 0,065	F = 1,202 p = 0,302
Self-identification					
Positive (335)	103,07 ± 14,21	55,70 ± 7,69	18,90 ± 2,65	16,46 ± 4,11	11,99 ± 3,24
Negative (113)	98,13 ± 15,98	53,49 ± 8,79	18,18 ± 3,06	15,05 ± 4,72	11,39 ± 3,49
	p = 0,025 t = 2,921	p = 0,001 t = 2,383	p = 0,017 t = 2,233	p = 0,003 t = 2,839	p = 0,098 t = 1,595

A significant difference was found between the 12th graders' scores of supporting their friends about the substance, one of the sub-dimensions of the SEAPSAS, and the other grades branches ($p < 0,05$).

No significant difference was found between family type and scale scores. There was no significant relationship between mother's education level and the scale. There was no significant relationship between father's education level and the scale. There was no significant relationship between the mother's occupation and the scale ($p < 0,05$).

A significant difference was found between the scores of those whose fathers were retired and the sub-dimension scores of supporting friends about substance addiction ($p < 0,05$). Students' economic status was significantly associated with the total SEAPSAS score and the sub-dimensions of abstaining from drugs/stimulants and doing so under pressure ($p < 0,05$). A significant difference was found based on parent–child relationship quality in the total SEAPSAS score and the sub-dimensions of abstaining from substances and seeking help ($p < 0,05$). Differences were observed in the total SEAPSAS score and in all sub-dimensions, including abstaining under pressure and seeking help ($p < 0,05$). Academic success was significantly related to the total score and the help-seeking sub-dimension, while friendship quality showed no significant association ($p < 0,05$). Positive self-definitions were significantly associated with the total score and all SEAPSAS sub-dimensions ($p < 0,05$)."

Discussion

The findings of this study, which was conducted to examine adolescent high school students' self-efficacy to protect substance addiction and related factors, were discussed in line with the literature.

The mean total score of the students participating in our study from the self-efficacy scale for protection from substance addiction was 101.83 ± 14.82 . When the literature was examined, it was determined that the scores obtained in studies conducted in similar groups were similar (Karaca, 2023; Uzun, Kelleci, 2018). When the literature was examined, the scores were lower in some study. The reason for the difference in scores is seen to be affected by the cultural differences of the participants (Ayhan, Çöplü, Türkmen, 2021).

The total score of the SEAPSAS was found to be associated with the scores of staying away from the substance when under pressure and supporting a friend about substance use among the sub-dimension scores of female students compared to male students. According to a study, when the frequency of substance use in adolescents is evaluated, it is seen that boys are more likely to use substances than girls. In this regard, it can be concluded that female students protect themselves more (Akkuş et al., 2016).

A significant difference was found between 12th graders' scores of supporting their friends about substances and the sub-dimensions of SEAPSAS compared to other grade levels. Towards the end of adolescence, 12th grade students can establish stronger friendship relationships and their awareness levels increase. Protection from substance addiction is higher with the presence of friends who show less risky behaviors by establishing stronger friendships, supporting each other and sharing in their friendship environments (Uludağlı, Sayıl, 2009).

It was found that students whose fathers are retired have significantly higher SEAPSAS substance addiction support sub-dimension scores. According to a study, a significant relationship was found between father relations and behavioral problems. The absence of the father in the family, his being present but uninterested, or his weak involvement in the family cause the children to have negative behavioral patterns by damaging their psychological well-being. The time spent by pensioners and fathers with their children, the closeness and support they provide to them reduce behavioral problems in adolescence (Aynacı, Kutlu, 2022).

In our study, it was determined that the families of the students were mostly middle-income. It was determined that the SEAPSAS total score, staying away from drugs/stimulants and staying away from drugs/stimulants under pressure scores of the middle-income children were significantly higher. The

average income of the family may be a factor supporting the self-efficacy of the adolescents to protect themselves from substance abuse (Tilim, Murat, 2019).

In our study, students stated that their relationships with their parents were generally good. It was determined that students who stated that their parents had a good relationship had higher SEAPSAS total score averages. As a result of positive behavioral attitudes of parents during adolescence (Holden, Edwards, 1989) and strong bonds established with adolescents, adolescents feel closer to their parents and this can prevent many risky behaviors of adolescents (Aynacı, Kutlu, 2022; Tunç, 2023).

There was a correlation between the average total score of the MBSQ and the sub-dimensions of the SEAPSAS, including abstaining from drugs/stimulants, abstaining from drugs/stimulants when under pressure, and seeking help for drugs/stimulants. The quality of the adolescent's relationship with his/her parents positively affects his/her self-efficacy for protection from substance addiction. Families cannot establish healthy communication with their children have difficulties in controlling the behavior of the adolescent, undermine their authority over the adolescent and reduce their guiding aspects (Aynacı, Kutlu, 2022; Baumrind, 1991; Bornstein, 2002; Cüceloğlu, 2021).

In our study, correlations were found between the total scores of the SEAPSAS and the sub-dimension scores of seeking help for drugs/stimulants of the students who evaluated their course success as good. It is seen that as course success increases, they develop positive attitudes towards protection from substances (Akkuş et al., 2016). School is a place that prepares individuals for life. Most of the time, individuals can experience coping with difficulties in this environment. School success means that the student uses his/her time effectively and efficiently. This is mental occupation. It is an indication that they have plans for the future, which makes the individual conscious of taking purposeful and correct action. Naturally, it keeps them away from drugs (Niyazibeyoğlu, 2023). No significant relationship was found between the students' relationship with friends and the scale.

In our study, a relationship was found between the mean total score and all sub-dimension scores of the SEAPSAS when adolescents defined themselves with more positive characteristics. As a final result of these findings, it can be concluded that individuals who characterize themselves with positive definitions can stay away from substance addiction even under pressure, do not hesitate to seek help in this regard, and often support their friends (Şen, 2015). According to Kılınç, individuals who have a positive view of themselves have higher self-control, can cope more effectively with challenging situations, and this makes them psychologically stronger (Kılınç, Uz Baş, 2023). An individual with strong psychology can turn the negative situations and events in his/her life into a good and effective development factor for himself/herself and can also prevent the occurrence of this situation (Kılınç, Uz Baş, 2023; Santrock, 2014; Turgut, Eraslan-Çapan, 2017).

Conclusions

As a result of this study, which examined the effect of some related factors on the self-efficacy levels of adolescents to protect themselves from substance addiction, the self-efficacy levels of adolescents to protect themselves from substance addiction were found to be higher among female students and 12th graders, those whose fathers were retired, and those who stated that family income was at a medium level. There were relationships between the participants' evaluating the relationship between their parents as good, having a good relationship with their parents, having good academic achievement, and defining themselves with generally positive characteristics and their self-efficacy to protect themselves from substance addiction. However, there was no relationship between mother

and father's education level, mother's occupation, family type and friendship and self-efficacy for protection of substance addiction.

As a result, it can be concluded that some demographic variables are effective in protecting adolescents from substance addiction, and positive dynamics such as positive family relationships, self-perception and high academic success are important variables.

- Protective/preventive interventions can be planned for adolescents before they reach high school, taking into account their individual, family and school characteristics.
- In improving adolescent mental health, studies can be conducted to strengthen basic family dynamics and increase the positive dynamics of the individual.
- It may be recommended to carry out protective projects with the cooperation of all relevant institutions at the local level, covering the family-school-living environment characteristics of students.

Limitations. The results of the study cannot be generalized to all adolescents in the city. The results of the study are limited to the adolescents in the specified high school.

Список источников / References

1. Akkuş, D., Karaca, A., Şener, D.K., Ankaralı, H. (2016). Incidence of Using Substances Among High School Students and Affecting Factors. *Bağımlılık Dergisi*, 17(4), 139—151.
2. Ayhan, F., Çöplü, M., Türkmen, A. (2021). The relationship between adolescents' self-efficacy for protection from substance abuse and parental attachment levels. *Bağımlılık Dergisi*, 22(3), 285—296. <https://doi.org/10.51982/bagimli.901638>
3. Aynacı, C., Kutlu, İ. (2022). Quantitative Study on Parental Relationships and Behavioral Problems in Adolescence. *Turkish Studies-Social Sciences*, 17(6), 1093—1108. <https://doi.org/10.7827/TurkishStudies.62944>
4. Balık-Okutan, S. (2017). *The Relationship Between Childhood Childhood Traumas and Mental Status in Ergenlerde Showing Risky Behavior (Unpublished Master's Thesis)*. Istanbul Commerce University.
5. Baumrind, D. (1991). The Influence of Parenting Style on Adolescent Competence and Substance use. *The Journal of Early Adolescence*, 11(1), 56—95. <https://doi.org/10.1177/02724316911111004>
6. Biswar-Diener, R. (2006). From the Equator to the North Pole: A Study of Character Strengths. *Journal of Happiness Studies*, 7, 293—310. <https://doi.org/10.1007/s10902-005-3646-8>
7. Blakemore, S.J. (2019). Adolescence And Mental Health. *The Lancet*, 393(10185), 2030—2031. [https://doi.org/10.1016/S0140-6736\(19\)31013-X](https://doi.org/10.1016/S0140-6736(19)31013-X)
8. Bornstein M.H. (Ed.). (2002). *Handbook of parenting: Children and parenting: Vol I*. Lawrence Erlbaum Associates Publishers.
9. Cüceloğlu, D. (2021). *The Child Within Us*. Remzi Bookstore.
10. Eker, F., Akkuş, D., Kapısız, Ö. (2013). The development and psychometric evaluation study of self-efficacy for protecting adolescences from substance abuse scale. *Journal of Psychiatric Nursing*, 4(1), 7—12. <https://doi.org/10.5505/phd.2013.74936>
11. Erikson, E.H. (1993). *Childhood and Society* (2nd ed.). London: Paladin Grafton Books.
12. Gander, M., Gardiner, H. (2015). *Child and Adolescent Development*. Ankara: İmge Bookstore.

Каплан В., Капаган Н. (2025)
 Самоэффективность подростков в профилактике
 наркотической зависимости и сопутствующих факторов
Психология и право, 15(3), 90—106.

Kaplan V., Kapağan N. (2025)
 Adolescents' self-efficacy in preventing
 substance addiction and associated factors
Psychology and Law, 15(3), 90—106.

13. Holden, G.W., Edwards, L.A. (1989). Parental Attitudes Toward Child Rearing: Instruments, Issues, and implications. *Psychological Bulletin*, 106, 29—58. <https://doi.org/10.1037/0033-2909.106.1.29>
14. Jessor R. (1991). Risk behavior in adolescence: a psychosocial framework for understanding and action. *The Journal of Adolescent Health*, 12(8), 597—605. [https://doi.org/10.1016/1054-139x\(91\)90007-k](https://doi.org/10.1016/1054-139x(91)90007-k)
15. Kadden, R.M., Litt, M.D. (2011). The Role of Self-Efficacy in the Treatment of Substance Use Disorders. *Addictive Behaviors*, 36(12), 1120—1126. <https://doi.org/10.1016/j.addbeh.2011.07.032>
16. Kaplan, H.I., Sadock, B. J. (1989). *Comprehensive textbook of psychiatry, Vols. 1-2*. Williams & Wilkins Co.
17. Karaca, H.N. (2023). *Investigation of the Relationship Between High School Students' Religious Beliefs and Self-Efficacy to Protect from Substance Addiction*. Inonu University Institute of Health Sciences.
18. Kaufman, A.S., Lichtenberger, E.O. (2005). *Assessing Adolescent and Adult Intelligence*. Canada: John Wiley & Sons.
19. Kaynak, D., Irgit, Y., Çakmak, S. (2022). The Relationship of Self-Esteem and Its Predictors with Culture in Adolescent Girls. *Current Approaches in Psychiatry*, 14(3), 358—370. <https://doi.org/10.18863/pgy.1009942>
20. Kılınç, B., Uz Baş, A. (2023). Investigation of Psychological Resilience Levels of Secondary School Students in Terms of Social Relations, School Belonging and Self-Efficacy. *Dokuz Eylül University Buca Education Faculty Journal*, 57, 1530—1554. <https://doi.org/10.53444/deubefd.1271996>
21. Kirk, B.A., Schutte, N.S., Hine, D.W. (2008). Development And Preliminary Validation of an Emotional Self-Efficacy Scale. *Personality And Individual Differences*, 45(5), 432—436. <https://doi.org/10.1016/j.paid.2008.06.010>
22. Koç, M. (2004). Adolescence Period and General Characteristics in Terms of Developmental Psychology. *Erciyes University Journal of Institute of Social Sciences*, 1(17), 231—256.
23. Niyazibeyoğlu, T. (2023). The Evaluation of Biographies' Importance in Terms of Enhancing Teenagers' Hope Emotions. *Journal of National Education*, 52(240), 3221—3238. <https://doi.org/10.37669/milliegitim.1175457>
24. Ögel, K. (2010). *Smoking, Alcohol and Substance Use Disorders: Diagnosis, Treatment and Prevention*. Istanbul: Yeniden Publications.
25. Papadimitriou, A., Nicolaidou, P., Fretzayas, A., Chrousos, G. P. (2010). Constitutional advancement of growth, aka early growth acceleration, predicts early puberty and childhood obesity. *The Journal of Clinical Endocrinology & Metabolism*, 95(10), 4535—4541. <https://doi.org/10.1210/jc.2010-0895>
26. Park, N., Peterson, C. (2008). Positive Psychology and Character Strengths: Application To Strengths-Based School Counseling. *Professional School Counseling*, 12(2), 85—92. <https://doi.org/10.5330/PSC.n.2010-12.85>
27. Peterson, F.L., Walker, L., Whatt, T.J., Rheinboldt, K., White, C., Hogkinson, M. (2003). Evidence-Based Sexuality Education. In: *American Public Health Association 2003 Annual Conference*. San Francisco, California.
28. Piaget, J. (1937). *The Birth of Intelligence in the Children*. Oxford, England. Delachaux and Niestle.

Каплан В., Капаган Н. (2025)
Самозффективность подростков в профилактике
наркотической зависимости и сопутствующих факторов
Психология и право, 15(3), 90—106.

Kaplan V., Kapağan N. (2025)
Adolescents' self-efficacy in preventing
substance addiction and associated factors
Psychology and Law, 15(3), 90—106.

29. Raposo, B., Francisco, R. (2022). Emotional (dys)Regulation and Family Environment in (non)Clinical Adolescents' Internalizing Problems: The Mediating Role of Well-Being. *Frontiers in Psychology*, 13, Article 703762. <https://doi.org/10.3389/fpsyg.2022.703762>
30. Razon, N. (2010). *Working Mother and Child: Parent School* (H. Yavuzer, ed.) (14th ed.). Istanbul: Remzi Kitabevi.
31. Robeva, R., Kumanov, P. (2016). Physical changes during pubertal transition. In: P. Kumanov, A. Agarwal (Eds.), *Puberty: Physiology and Abnormalities* (pp. 39—64). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-32122-6_4
32. Rosenthal, R.J., Faris, S.B. (2019). Etymology and Early History of 'Addiction'. *Addiction Research and Theory*, 27(5), 437—449. <https://doi.org/10.1080/16066359.2018.1543412>
33. Rowe, C.L. (2012). Family Therapy for Drug Abuse: Review and Updates (2003—2010). *Journal of Marital and Family Therapy*, 38(1), 59—81. <https://doi.org/10.1111/j.1752-0606.2011.00280.x>
34. Santrock, J.W. (2014). *Lifelong Development* (G. Yüksel, ed.). Nobel Academic Publishing.
35. Şen, A.S. (2015). *Predictive Relationships Between Adolescents' Values and Future Expectations and Self-Efficacy for Protection from Substance Abuse: Doctoral Dissertation*. Necmettin Erbakan University.
36. Senemoğlu, N. (2010). *Development Learning and Teaching Theory to Practice* (16th ed.). Pegem Academy, Ankara.
37. Şimşek, H., Çöplü, F. (2018). Investigation of the Relationship Between High School Students' Levels of Showing Risky Behaviors and School Attachment Levels. *Ahi Evran University Journal of Institute of Social Sciences*, 4(1), 18—30. <https://doi.org/10.31592/aeusbed.358223>
38. Snoek, A. (2023). Addiction and Living in the Shadow of Death: The Influence of the Body on Agency and Self-Control. *Addiction Research and Theory*, 32(2), 143—151. <https://doi.org/10.1080/16066359.2023.2230874>
39. Soliman, A., De Sanctis, V., Elalaily, R., Bedair, S. (2014). Advances in Pubertal Growth and the Factors Affecting It: Can We Increase Pubertal Growth? *Indian Journal of Endocrinology and Metabolism*, 18(7), 53—62. <https://doi.org/10.4103/2230-8210.145075>
40. Tangül Özcan, C., Gürhan, N. (2016). *Fundamentals of Mental Health and Psychiatric Nursing*. Akademisyen Medical Bookstore, Ankara.
41. Teze, S. Ayhan, F. (2023). Does Ego Identity Process Have a Predictive Role in Drug Avoidance? *Bağımlılık Dergisi*, 24(1), 22—34. <https://doi.org/10.51982/bagimli.1107106>
42. Tilim, E., Murat, M. (2019). The Relationship Between Self-Efficacy Regarding Protection from Substance Abuse in Adolescents and Peer Pressure, Self-Expression Skills and Psychological Resilience. *OPUS International Journal of Society Researches*, 14(20), 929—955. <https://doi.org/10.26466/opus.608229>
43. Toraman, Ç., Sarıgedik, E., Toraman, M.Ç., Noyan, C.O. (2023). Assessment of Psychological Resilience, Self-Efficacy and Social Emotional Learning Skills of Adolescents in Institutional Care. *Community And Social Work*, 34(1), 169—184. <https://doi.org/10.33417/tsh.1062003>
44. Tunç, H. (2023). *Evaluation of Family Functions in Adolescents with and without Substance Use*. Celal Bayar University. Institute of Health Sciences.
45. Turgut, Ö., Eraslan-Çapan, B. (2017). The Predictors of Adolescent Resilience: Perceived Social Support and School Engagement. *Mehmet Akif Ersoy University Faculty of Education Journal*, 44, 162—183. <https://doi.org/10.21764/maeuefd.309934>

Каплан В., Капаган Н. (2025)
Самоеффективность подростков в профилактике
наркотической зависимости и сопутствующих факторов
Психология и право, 15(3), 90—106.

Kaplan V., Kapağan N. (2025)
Adolescents' self-efficacy in preventing
substance addiction and associated factors
Psychology and Law, 15(3), 90—106.

46. Uludağlı, N.P., Sayıl, M. (2009). Risk-taking behavior in middle and late adolescence: The role of parents and peers. *Turkish Psychological Writings*, 12(23), 14—24.
47. Uzun, S., Kelleci, M. (2018). Substance Addiction in High School Students: Self-Efficacy and Related Factors on Protection from Substance Addiction. *Dusunen Adam*, 31(4), 356—363. <https://doi.org/10.5350/dajpn2018310404>
48. Wells, E.A., Kristman-Valente, A.N., Peavy, K.M., Jackson, T. R. (2013). Social Workers and Delivery of Evidence-Based Psychosocial Treatments for Substance Use Disorders. *Social Work in Public Health*, 28(3-4), 279—301. <https://doi.org/10.1080/19371918.2013.759033>
49. Witkiewitz, K., Tucker, J. (2024). Whole Person Recovery from Substance Use Disorder: A Call for Research Examining a Dynamic Behavioral Ecological Model of Contexts Supporting Recovery. *Addiction Research and Theory*, 33(1), 1—12. <https://doi.org/10.1080/16066359.2024.2329580>
50. Yalçın, S.B., Koyuncu, E., Avşaroğlu, S. (2022). *The Relationship Between High School Students' Career Difficulties, Risky Behavior Levels and Family Influence on Career Choice*. Academic Studies in Education and Culture I, 210.
51. Yavuzer, H. (2005) *Understanding Young People* (2nd ed.). Istanbul: Remzi Kitabevi.
52. Yıldız, H. (2021). *Investigation of Stresle Coping Strategies of Ergenlerin Stresle Coping Strategies in terms of Family Relations (Unpublished Master's Thesis)*. Istanbul: Maltepe University, Institute of Postgraduate Education.
53. Yoon, Y., Eisenstadt, M., Lereya, S.T., Deighton, J. (2022). Gender Difference in the Change of Adolescents' Mental Health and Subjective Wellbeing Trajectories. *European Child & Adolescent Psychiatry*, 32, 1569—1578. <https://doi.org/10.1007/s00787-022-01961-4>
54. Yüzbaşı, D.V., Yılmaz, S.S. (2022). A Review Study on Parental Perceived Psychological Control in Adolescence. *Ege Eğitim Dergisi*, 23(3), 350—369. <https://doi.org/10.12984/egeefd.1068404>

Information about the authors

Veysel Kaplan, Associate Professor (Psychiatric Nursing) of the Nursing Department, Faculty of Health Sciences, Harran University, ORCID: <https://orcid.org/0000-0001-9082-1379>, e-mail: vysslkpln@hotmail.com

Nurşin Kapağan, Teacher, Abdurrahman Şimşek Vocational High School, ORCID: <https://orcid.org/0009-0001-5937-4379>, e-mail: nursindundar8@gmail.com

Информация об авторах

Вейсел Каплан, доцент (психиатрическое сестринское дело) кафедры сестринского дела, факультет медицинских наук, Харранский университет, ORCID: <https://orcid.org/0000-0001-9082-1379>, e-mail: vysslkpln@hotmail.com

Нуршин Капаган, преподаватель, Профессиональная средняя школа им. Абдурахмана Шимшека, ORCID: <https://orcid.org/0009-0001-5937-4379>, e-mail: nursindundar8@gmail.com

Каплан В., Капаган Н. (2025)
Самозффективность подростков в профилактике
наркотической зависимости и сопутствующих факторов
Психология и право, 15(3), 90—106.

Kaplan V., Kapağan N. (2025)
Adolescents' self-efficacy in preventing
substance addiction and associated factors
Psychology and Law, 15(3), 90—106.

Contribution of the authors

Veysel Kaplan — ideas; annotation, writing and design of the manuscript; planning of the research; control over the research.

Nurşin Kapağan — ideas; annotation, writing and design of the manuscript; planning of the research; control over the research.

All authors participated in the discussion of the results and approved the final text of the manuscript.

Вклад авторов

Каплан В. — идеи; написание и оформление рукописи; планирование исследования; контроль за ходом исследования.

Капаган Н. — идеи; написание и оформление рукописи; планирование исследования; контроль за ходом исследования.

Все авторы приняли участие в обсуждении результатов и одобрили окончательный текст рукописи.

Conflict of interest

The authors declare no conflict of interest.

Конфликт интересов

Авторы заявляют об отсутствии конфликта интересов.

Ethics statement

This study was approved by Harran University Social Sciences Ethics Committee (document numbered E-76244175-050.04-392981 and decision numbered 2024/266).

Декларация об этике

Данное исследование было одобрено Комитетом по этике социальных наук Харранского университета (документ № E-76244175-050.04-392981 и решение № 2024/266).

Поступила в редакцию 06.04.2025
Поступила после рецензирования 30.06.2025
Принята к публикации 30.06.2025
Опубликована 30.09.2025

Received 2025.04.06
Revised 2025.06.30
Accepted 2025.06.30
Published 2025.09.30