

## GEMİ ADAMI SAĞLIK KURULU RAPORU İÇİN EĞİTİM VE ARAŞTIRMA HASTANESİNE BAŞVURAN ERGENLERİN DEĞERLENDİRİLMESİ

Yüksel Sümeýra NARALAN<sup>a,\*</sup> | Merve YAZICI<sup>b</sup> | Uğur TEKEOĞLU<sup>c</sup>

<sup>a</sup>Çocuk ve Ergen Psikiyatristi, Çocuk ve Ergen Psikiyatrisi Anabilim Dalı, Recep Tayyip Erdoğan Üniversitesi Tıp Fakültesi, Rize, Türkiye, ORCID: 0000-0002-7788-5711.

<sup>b</sup>Çocuk ve Ergen Psikiyatristi, Çocuk ve Ergen Psikiyatrisi Anabilim Dalı, Recep Tayyip Erdoğan Üniversitesi Tıp Fakültesi, Rize, Türkiye, ORCID: 0000-0001-8217-0043.

<sup>c</sup>Çocuk ve Ergen Psikiyatristi, Çocuk ve Ergen Psikiyatrisi Anabilim Dalı, Recep Tayyip Erdoğan Üniversitesi Tıp Fakültesi, Rize, Türkiye, ORCID: 0000-0002-8432-7566.

\*Sorumlu Yazar; Yüksel Sümeýra NARALAN, E-Posta: drsumeyrakaragoz@yahoo.com

### ÖZET

#### Anahtar Kelimeler

- Gemi Adamı,
- Ergen,
- Sağlık Kurulu Raporu.

#### Makale Hakkında

Araştırma Makalesi

#### Gönderim Tarihi

03.10.2024

#### Kabul Tarihi

09.01.2025

**Amaç:** On sekiz yaş altı denizciler, Denizcilerin Sağlık Direktifi ve Uluslararası Çalışma Örgütü'nün (ILO) Çocuk ve Genç Kişilerin İstihdamına Uygunluk İçin Tıbbi Muayene ile ilgili 77 No'lu Sözleşmesi uyarınca yıllık periyodik sağlık muayenelerinden geçmektedir. Bu çalışma, çocuk ve ergen psikiyatrisi polikliniğinde denizci sağlık komitesi raporu için değerlendirilen ergen hastaların sosyodemografik özelliklerini ve psikiyatrik tanımlarını belirleyerek ergen denizcilerin ruh sağlığını vurgulamayı amaçlamaktadır.

**Yöntem:** Çalışmaya Temmuz 2022-Kasım 2022 tarihleri arasında Rize Eğitim ve Araştırma Hastanesi Gemi Adamlığı için Sağlık Kurulu'na ilk kez başvuran, Çocuk ve Ergen Ruh Sağlığı ve Hastalıkları Polikliniği'nde değerlendirilen 105 ergen alınmıştır. Hastaların sosyodemografik ve klinik verileri çocuk psikiyatri uzmanı tarafından oluşturulan, ergenlerin kişisel verileri psikiyatrik tanımları, gemi adamlığına uygunluğunu içeren anket ile elde edilmiştir. Ergenlerin şimdiki ve geçmiş psikiyatrik tanımları DSM-5'e dayalı yarı yapılandırılmış görüşme yöntemi olan Okul Çağı Çocukları için Duygulanım Bozuklukları ve Şizofreni Görüşme Çizelgesi-Şimdi ve Yaşam Boyu Şekli (ÇDGŞG-ŞY) ile belirlenmiştir.

**Bulgular:** Araştırmaya katılan 105 olgunun %97,1'i (102) erkek, %2,9'u (3) kızdı. Ortalama yaş  $13,8 \pm 0,8$  yıl olarak saptandı. Olguların %18,1'inin daha önce psikiyatrik başvurusu olduğu, %6,7'sinin daha önce psikiyatrik ilaç kullanımı olduğu görüldü. Gençlerden %1,9'unun gemi adamı olmaz raporu aldığı, %13,3'ünün ise iki yıldan sık aralıklarla takip edilmesi gerektiği saptandı.

**Sonuç:** Elde edilen sonuçlar ergen yaş grubunda gemi adamlığı açısından geçmişte psikiyatrik hastalıkların olabileceği ancak mevcut psikiyatrik hastalıkların gemi adamı olma açısından uzun süreli olumsuz etkisi olmadığı göstermektedir. Bu araştırmadan elde edilen sonuçlar denizcilik sektöründe çalışan gençlerin ruh sağlığı konusunda farkındalık oluşturulması adına hem çocuk ve ergen ruh sağlığı profesyonellerine hem de koruyucu sağlık politikalarını geliştirenlere rehberlik edebilir.

## EVALUATION OF ADOLESCENTS APPLYING TO A TRAINING AND RESEARCH HOSPITAL FOR A SEAFARER HEALTH BOARD REPORT

Yüksel Sümeýra NARALAN<sup>a,\*</sup> | Merve YAZICI<sup>b</sup> | Uğur TEKEOĞLU<sup>c</sup>

<sup>a</sup> Child and Adolescent Psychiatrist, Department of Child, and Adolescent Psychiatry, Recep Tayyip Erdogan University School of Medicine, Rize, Türkiye, ORCID: 0000-0002-7788-5711.

<sup>b</sup> Child and Adolescent Psychiatrist, Department of Child, and Adolescent Psychiatry, Recep Tayyip Erdogan University School of Medicine, Rize, Türkiye, ORCID: 0000-0001-8217-0043.

<sup>c</sup> Child and Adolescent Psychiatrist, Department of Child, and Adolescent Psychiatry, Recep Tayyip Erdogan University School of Medicine, Rize, Türkiye, ORCID: 0000-0002-8432-7566.

\*Corresponding Author; Yüksel Sümeýra NARALAN, E-mail: drsumeyrakaragoz@yahoo.com

### ABSTRACT

#### Keywords

- Seafarer,
- Adolescent,
- Health Committee Report

#### Article Info

Research article

#### Received

03.10.2024

#### Accepted

09.01.2025

**Aim:** Seafarers under 18 years old undergo annual periodic health examinations by the Seafarers' Health Directive and the International Labour Organization (ILO) Convention No. 77 concerning the Medical Examination for Fitness for Employment of Children and Young Persons. This study aims to highlight the mental health of adolescent seafarers by determining the sociodemographic characteristics and psychiatric diagnoses of adolescent patients evaluated for a seafarer health committee report at the child and adolescent psychiatry outpatient clinic.

**Methods:** The study included 105 adolescents who applied to the Seafarer Health Committee for the first time. The sociodemographic and clinical data of the patients were obtained through a survey created by a child psychiatry specialist, which included personal information, psychiatric diagnoses, and fitness for seafaring. The current and past psychiatric diagnoses of the adolescents were determined using the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS), a semi-structured interview method based on DSM-5.

**Results:** Of the 105 cases included in the study, 97.1% (102) were male, and 2.9% (3) were female. The mean age was  $13.8 \pm 0.8$  years. It was observed that 18.1% of the cases had a previous psychiatric referral, and 6.7% had used psychiatric medication before. It was found that 1.9% of the youth received a report stating they were unfit to be seafarers, and 13.3% needed to be monitored at intervals shorter than two years.

**Conclusion:** The results obtained indicate that while there may have been psychiatric disorders in the past among adolescents in the context of seafaring, current psychiatric disorders do not have long-term negative effects on the ability to become a seafarer. The findings of this study could guide both child and adolescent mental health professionals and those developing preventive health policies in raising awareness about the mental health of young people working in the maritime sector.

## INTRODUCTION

Seafarers refer to the ship's captain, officers, assistant officers, trainees, crew members, and auxiliary service personnel. The maritime sector, due to factors such as extended periods away from land, extended working hours, living away from family, social isolation, irregular nutrition, and sleep patterns, makes individuals more psychologically vulnerable (1). For this reason, seafaring is among the professions with the highest levels of stress. Working in high-risk and challenging conditions can lead to mental health issues among seafarers (2-5). The process of becoming a seafarer was standardized by the decree law No. 655 on the Organization and Duties of the Ministry of Transport, Maritime Affairs, and Communications, under Article 9, published in the Official Gazette on 10/02/2018. According to Article 59 of this regulation, seafarers under the age of eighteen are required to undergo periodic health examinations annually, considering the provisions of the Seafarers' Health Directive and the International Labour Organization (ILO) Convention No. 77 concerning Medical Examination for Fitness for Employment of Children and Young Persons. In these examinations, it must be explicitly stated in the health report with the "Fit for Seafarer" decision and in the annually repeated health examinations that seafarers under the age of eighteen are fit for sea service and that their health condition will not deteriorate due to these services (6). Since being a seafarer causes psychiatric disorders, the aim of requesting a 'Fit for Seafarer' health report is to identify risky adolescents with psychiatric disorders before starting this profession and to prevent this profession from causing psychiatric disorders as well as increasing existing psychopathology.

18

Studies in the literature have mostly focused on psychiatric disorders that occur as a result of the seafaring profession. A study reported that these challenging conditions lead to an increase in smoking, alcohol and substance dependence, depression, and sleep disorders among seafarers (7-10). In a study conducted by Borovnik et al., it was reported that 48.7% of seafarers experienced various mental health issues (11). A study conducted with Turkish seafarers found that even though they obtained a health committee report, 33.2% of them exhibited symptoms of depression (12). Another study reported that 25% of seafarers showed moderate to severe symptoms of depression (13). In a study examining suicide rates across various professions, seafarers were found to be in the high-risk group with the highest incidence of suicide cases (14). Lefkowitz and Slade reported that 20% of seafarers had thoughts of suicide or self-harm within the two weeks preceding the study (15).

The challenging working conditions and social isolation associated with seafaring can lead to psychiatric disorders, making the assessment of fitness for sea service essential. However, the psychopathologies before becoming a seafarer and the effect of being a seafarer on these psychopathologies have not been investigated in the literature. The aim of this study is to determine the sociodemographic characteristics and psychiatric diagnoses of adolescent patients who applied for the first time to the child and adolescent psychiatry outpatient clinic of a training and research hospital for the seafarer health committee report and to determine whether existing psychopathologies constitute an obstacle to becoming a seafarer. We hope that the results of this study will contribute to the literature by drawing attention to adolescent seafarers, a high-risk group in terms of psychiatric disorders, and mental health professionals in our country.

## METHODS

### Sampling

The study included 105 adolescents who applied for the first time to the Seafarer Health Committee at Rize Training and Research Hospital between July 2022 and November 2022 to obtain a "Fit for Seafarer" report and were evaluated in the Child and Adolescent Psychiatry Outpatient Clinic. Adolescents who applied to the health committee for seafaring and whose file data were accessible were included in the study.

### Procedure

The sociodemographic and clinical data of the patients were retrieved from the archives by a child psychiatry specialist. The patient's personal data, past and present psychiatric diagnoses obtained from the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS) administered during the Seafarer Health Committee examination, and information regarding their fitness for seafaring were retrospectively collected from the file records. The study was approved by the Ethics Committee of Recep Tayyip Erdoğan University Faculty of Medicine (decision dated 15.08.2024, no: 2024/). The research was prepared in accordance with the rules stated in the Declaration of Helsinki.

19

### Statistical Analysis

The statistical analysis of the data was performed using SPSS 29 (IBM, Armonk, USA), and the descriptive statistics are presented in tables. Categorical data are shown as percentages, data with a normal distribution are presented as mean  $\pm$  standard deviation, and data not following a normal distribution are shown as median (minimum-maximum).

## RESULTS

A total of 105 cases who applied for a seafarer health committee report between July 2022 and November 2022 were included in the study. Among the 105 cases, 97.1% (102) were male, and 2.9% (3) were female. The average age was determined to be  $13.8 \pm 0.8$  years. The average age of the mothers of the included adolescents was  $41.2 \pm 6.2$  years, and the average age of the fathers was  $46.3 \pm 6.7$  years. The average family income was  $8350 \pm 4692$  Turkish Lira (TRY) (Table 1).

It was found that 48% of the families had one child, 23.8% had two children, 53.3% had three children, 13.3% had four children, 1.9% had five children, and 2.9% had six children. Among the children evaluated for seafaring, 32.4% were the first child, 40% were the second child, 18.1% were the third child, 5.7% were the fourth child, 1.9% were the fifth child, and 1.9% were the sixth child. Of the mothers of the adolescents included in the study, 81% were housewives, 1.7% were retired, and 18% were working. Among the fathers, 11.4% were retired, 2.9% were unemployed, and 85.7% were working.

**Table 1:** Sociodemographic data

<b>Demographic data</b>	N=105
Age [Mean $\pm$ St. Deviation]	13,8 $\pm$ 0,8 year
Gender [Boys/Girls]	102/3
Mother's age [Mean $\pm$ St. Deviation]	41,2 $\pm$ 6,2 year
Father's age [Mean $\pm$ St. Deviation]	46,3 $\pm$ 6,7 year
Average monthly income [Mean $\pm$ St.deviation]	8350 $\pm$ 4692 TRY

Among the adolescents evaluated, 18.1% had a previous psychiatric referral, and 6.7% had used psychiatric medication before (Table 2). The most common past psychiatric diagnoses were attention deficit hyperactivity disorder (ADHD) (n=6), enuresis/encopresis (n=5), separation anxiety disorder (n=4), specific phobia (n=2), tic disorder (n=2), and speech delay (n=1). The medications most commonly used by adolescents with past psychiatric diagnoses were methylphenidate (n=4), atomoxetine (n=1), sertraline (n=1), and aripiprazole (n=1). During the psychiatric evaluation for the Seafarer Health Committee report, 20% of the adolescents were diagnosed with specific phobia, 18% with ADHD, 4.7% with other anxiety disorders, 1.9% with speech disorder, 0.9% with tic disorder, and 0.9% with enuresis (Table 2).

20

**Table 2:** Psychiatric assessment data

	% (n)
Previous psychiatric admission [Yes/None]	%18,1 (19) / %81,9 (86)
Previous use of psychiatric drugs [Yes/None]	%6,7 (7) / %93,3 (98)
Psychiatric Diagnoses in Report Examination	
• Specific phobia	%20 (21)
• ADHD	%18 (19)
• Other Anxiety Disorders	%4,7 (5)
• Speech Disorder	%1,9 (2)
• Tic Disorder	%0,9 (1)
• Enuresis/Encopresis	%0,9 (1)

Substance screening in urine conducted during the report application was negative for all

participants. It was found that 13% of the adolescents required more frequent follow-up than every two years according to the health committee report for seafarers, and 1.9% (n=2) were unable to obtain a fit-for-seafarer report (Table 3). Among the adolescents who could not obtain a fit-for-seafarer report, one was diagnosed with severe specific phobia involving drowning in deep water, and the other with ADHD, oppositional defiant disorder, and anxiety disorder.

**Table 3:** Seafaring Report data

	% (n)	% (n)
Urine Substance Screening [+/-]	%0 (0)	%100 (105)
Seafarer's health check requirement more than 2 years [Yes/None]	%13,3 (14)	%86,7 (91)
Fit for Seafarer [Fit/Unfit]	%98,1 (103)	%1,9 (2)

21

## DISCUSSION

The findings of this study provide valuable information regarding the sociodemographic characteristics and psychiatric diagnoses of adolescent patients evaluated for a seafarer health committee report. The data obtained in our research highlight the mental health of adolescent seafarers and demonstrate that this group is at risk not only from a physical perspective but also from a psychological one. A review of the literature reveals that there is less focus on the mental health status of seafarers compared to physical health issues (9, 16, 17). A systematic review assessing the mental health of seafarers has revealed that only 10.61% of all studies in the field focus on evaluating the mental health of seafarers (18).

In the study, 97.1% of the participants were male and 2.9% were female. Reports and data published by the International Maritime Organization (IMO) indicate that the majority of the maritime sector workforce is male (19). BIMCO/ICS 2021 According to the Seafarer Workforce Report, women represent only 1.2% of the global seafarer workforce (20). Research on women's participation in the maritime sector shows that the proportion of women in the industry is quite low, although this proportion has been gradually increasing over time (21). The gender distribution in our study is consistent with global gender distribution data in the maritime sector. The lower representation of women as seafarers compared to men may be related to the prolonged separation from land, harsh working conditions, and societal gender roles. The average age of the adolescents included in the study was found to be  $13.8 \pm 0.8$  years. Specific literature on the average age of students attending maritime high schools is quite limited, but high school students in maritime training are between the ages of 14 and 18 (22, 23). The average age found in the study appears to be consistent with the literature, as it includes



applications from high school students.

The socioeconomic level of the families of the adolescents included in the study was found to be low. The impact of family income level on children's mental health is widely discussed in the literature, which indicates that children from low-income families may be more prone to psychiatric issues (24). Research on the socioeconomic status of students in maritime high schools has noted that many students come from families wishing to work in the maritime sector, but the families' economic conditions are at a medium or low level (25).

In the study, 18.1% of the adolescents had a history of psychiatric consultation. The most common past psychiatric diagnoses among these adolescents were, in order, ADHD, enuresis/encopresis, separation anxiety disorder, specific phobia, tic disorder, and speech delay. There is no available information in the literature regarding the past psychiatric diagnoses of adolescents applying for seafaring roles. This finding may be related to the fact that these diagnoses are commonly observed in the general population of preschool and school-aged children, given the average age of the applicants.

In the psychiatric evaluation conducted during the seafarer fitness assessment, 20% of the adolescents were found to have specific phobia, and 18% had ADHD. A study conducted in Mexico reported that 36.5% of adolescents met lifetime criteria for specific phobia, and 27.3% met criteria in the previous 12 months (26). The prevalence of specific phobia in our study aligns with findings in the literature. A meta-analysis conducted in Spain reported that the prevalence of ADHD among adolescents is 6.6% (27). A study investigating the prevalence of ADHD and comorbid disorders in our country found that the prevalence of ADHD is 12.4%. This rate is notably higher in the Eastern Black Sea region compared to the national average (28). The high rate of ADHD found in our study is consistent with national data, and the prevalence may be elevated due to regional factors. Also, ADHD-affected individuals might choose careers with clear and structured job roles, such as seafaring, due to their academic struggles. The urine drug screening conducted during the report application was negative for all participants. In the study, 13% of the adolescents required frequent follow-up (more than every two years) according to the seafarer fitness report, while 1.9% did not receive a seafarer fitness report. One of these two cases was found to have multiple psychopathologies in the form of ADHD, ODD, and anxiety disorder, while the other had a specific phobia of deep sea drowning and a diagnosis of ADHD. The maritime sector's demands for prolonged separation from land and social isolation suggest that adolescents may be more susceptible to psychiatric disorders (15, 29). All psychiatric evaluations, including past and current psychiatric diagnoses, and the necessity of a seafarer fitness report are critical for assessing susceptibility to psychiatric disorders as noted in the literature. According to the results of the study, it is thought that caution should be exercised in evaluating the suitability of children with multiple psychiatric disorders for seafaring.

The findings of this study underscore the importance of including psychiatric evaluations, in addition to physical health assessments, in the seafarer fitness reports required for eligibility. The past psychiatric diagnoses of adolescents and the challenging working conditions of seafaring highlight the need for more comprehensive assessments in this area (30).

The limitations of our study include the use of data from a single centre, the retrospective nature

of the data collection, and the lack of a healthy control group. However, a strength of the study is that the participants were evaluated using the semi-structured interview method K-SADS for the seafarer fitness report.

In summary, to the best of our knowledge, this study is the first to evaluate the sociodemographic and clinical data of adolescents assessed for a Seafarer Fitness Report. There are no existing studies in the literature that specifically assess the psychiatric diagnoses or psychological conditions of seafarers in the adolescent age group before becoming seafarers. Our research is pioneering in highlighting potential psychiatric disorders among adolescents at risk due to the challenging conditions of the maritime sector, drawing attention to the mental health of seafarers in this age group.

In this study, we found that the majority of the adolescents applying for the seafarer health board were male, had low socioeconomic income levels, and frequently had specific phobia and ADHD both in the past and present. Our research is the first study in the literature to evaluate the sociodemographic and clinical data of adolescents assessed for the Seafarer Medical Certificate. The fact that sample size and power were not calculated in this study limits the generalizability of the results. We believe that cross-sectional studies comparing seafaring adolescents with healthy controls and longitudinal studies evaluating these adolescents are necessary. Our study raises new questions about the psychological effects of harsh sea conditions on adolescents in this risky age group, emphasizing the importance of recognizing, treating and developing preventive health policies for possible psychiatric disorders in this group. In future studies, prospective studies with power analysis and longitudinal studies comparing seafaring adolescents with healthy controls are recommended to increase the accuracy and reliability of the findings.

23

## CONCLUSION

In conclusion, the results of this study could guide both child and adolescent mental health professionals and those developing preventive health policies in raising awareness about the mental health of young people working in the maritime sector and taking necessary precautions. Protecting the mental health of adolescents in the seafaring profession is critical for the long-term sustainability of both individuals and the sector.

## REFERENCES

1. Arslan Ö. Human resources management for Turkish seafarers: Master's Thesis, Istanbul Technical University, Institute of Science; 2006.
2. Jensen H-J, Oldenburg M. Objective and subjective measures to assess stress among seafarers. *Int Marit Health*. 2021;72(1):49-54.
3. Jensen H-J, Oldenburg M. Training seafarers to deal with multicultural crew members and stress on board. *Int Marit Health*. 2020;71(3):174-80.
4. Jensen H-J, Oldenburg M. Potentially traumatic experiences of seafarers. *J Occup Med Toxicol*. 2019;14(1):17-.
5. Jegaden D, Menaheze M, Lucas D, Loddé B, Dewitte J-D. Don't forget about seafarer's boredom. *Int Marit Health*. 2019;70(2):82-7.



6. Seafarers and Pilots Regulations 2018 [Available from: <https://www.resmigazete.gov.tr/eskiler/2018/02/20180210-9.htm>.
7. Fort E, Massardier-Pilonchéry A, Bergeret A. Psychoactive substances consumption in French fishermen and merchant seamen. *Int Arch Occup Environ Health*. 2010;83(5):497-509.
8. Jepsen JR, Zhao Z, Pekcan C, Barnett M, van Leeuwen WMA. Risk Factors for Fatigue in Shipping, the Consequences for Seafarers' Health and Options for Preventive Intervention. *Maritime Psychology*. Cham: Springer International Publishing; 2017. p. 127-50.
9. Jonglertmontree W, Kaewboonchoo O, Morioka I, Boonyamalik P. Mental health problems and their related factors among seafarers: a scoping review. *BMC Public Health*. 2022;22(1):282-.
10. Nittari G, Gibelli F, Bailo P, Sirignano A, Ricci G. Factors affecting mental health of seafarers on board merchant ships: a systematic review. *Rev Environ Health*. 2024;39(1):151-60.
11. Borovnik M. Occupational health and safety of merchant seafarers from Kiribati and Tuvalu. *Asia Pacific Viewpoint*. 2011;52(3):333-46.
12. Kınalı H, Yıldırım U, Toygar A. A quantitative study on the mental health of Turkish seafarers. *Int J Occup Saf Ergon*. 2022;28(4):2657-67.
13. Mellbye A, Carter T. Seafarers' depression and suicide. *Int Marit Health*. 2017;68(2):108-14.
14. Lodde B, Jegaden D, Lucas D, Feraud M, Eusen Y, Dewitte J-D. Stress in seamen and non seamen employed by the same company. *Int Marit Health*. 2008;59(1-4):53-60.
15. Lefkowitz RY, Slade MD, Lefkowitz R, Slade M. Seafarer Mental Health Study. ITF Seafarers Trust & Yale University: ITF House, 2019;49-60.
16. Brooks SK, Greenberg N. Mental health and psychological wellbeing of maritime personnel: a systematic review. *BMC Psychology*. 2022;10(1):139.
17. Li X, Zhou Y, Yuen KF. A systematic review on seafarer health: Conditions, antecedents and interventions. *Transport Policy*. 2022;122:11-25.
18. McVeigh J, MacLachlan M. A silver wave? Filipino shipmates' experience of merchant seafaring. *Marine Policy*. 2019;99:283-97.
19. Organization IM. Women in Maritime 2019 [Available from: <https://www.imo.org/en/ourwork/technicalcooperation/pages/womeninmaritime.aspx>.
20. New BIMCO/ICS Seafarer Workforce Report warns of serious potential officer shortage 2021 [cited 2024 04.09.2024]. Available from: <https://www.ics-shipping.org/press-release/new-bimco-ics-seafarer-workforce-report-warns-of-serious-potential-officer-shortage/>.
21. Cahoon L, Therese. Women seafarers and their experiences of discrimination and harassment at sea: Gendered barriers to the maritime industry. *Marine Policy*. 2021;130(104211).
22. Sari I, Akkaya, G. A Study on Maritime Students' Career Awareness and Expectations in Turkey. *Journal of ETA Maritime Science*. 2019;7(2):154-69.
23. Turker U, Altın, A. An Investigation on Maritime High School Students' Perception and Knowledge Level about Maritime Profession. *The Journal of International Maritime*. 2016;3(2):45-53.
24. Johnson R, Miller, S. Socioeconomic status and child mental health. *Pediatric Psychology Journal*. 2019;33(1):45-53.
25. Chadwell B. The Effect of Socioeconomic Status and Gender on High School Student Perceptions About Career and Technical Education. *Doctoral Dissertations and Projects*. 2017(1488).

26. Benjet C, Borges G, Stein DJ, Méndez E, Medina-Mora ME. Epidemiology of fears and specific phobia in adolescence: results from the Mexican Adolescent Mental Health Survey. *J Clin Psychiatry*. 2012;73(2):152-8.
27. Catalá-López F, Peiró S, Ridaó M, Sanfélix-Gimeno G, Gènova-Maleras R, Catalá MA. Prevalence of attention deficit hyperactivity disorder among children and adolescents in Spain: a systematic review and meta-analysis of epidemiological studies. *BMC Psychiatry*. 2012;12:168.
28. Ercan ES, Unsel-Bolat G, Tufan AE, Karakoc Demirkaya S, Bilac O, Celik G, et al. Effect of Impairment on the Prevalence and Comorbidities of Attention Deficit Hyperactivity Disorder in a National Survey: Nation-Wide Prevalence and Comorbidities of ADHD. *Journal of Attention Disorders*. 2021;26(5):674-84.
29. Madsen IEH, Nyberg ST, Magnusson Hanson LL, Ferrie JE, Ahola K, Alfredsson L, et al. Job strain as a risk factor for clinical depression: systematic review and meta-analysis with additional individual participant data. *Psychol Med*. 2017;47(8):1342-56.
30. Roberts SE, Nielsen D, Kotowski A, Jaremin B. Fatal accidents and injuries among merchant seafarers worldwide. *Occup Med*. 2014;64(4):259-66.