Research Report

ATTITUDE TOWARDS SUICIDE AMONG JUNIOR RESIDENTS- A CROSS-SECTIONAL STUDY

Nitin Murali TN[1], Smitha Ramadas[2]*

[1]Department of Psychiatry, Government Medical College, Thrissur
*Corresponding Address: Additional Professor, Department of Psychiatry, Government Medical College, Thrissur, Kerala
Email: dr.smitharamadas@gmail.com

ABSTRACT

Background: Suicide as a public health problem is gaining importance due to the COVID pandemic. After a suicide attempt, a patient is examined at emergency services by duty doctor. After that, a right attitude is essential to prepare the patient for psychiatry referral or give mental health intervention by themselves. Suicide among doctors is also relatively high. Faulty attitude could prevent them from seeking help when faced with a suicide risk situation. Junior residents (JRs) are the first point of contact with patients in medical colleges. Their attitude to suicide is not studied in Kerala, where the suicide rate is high. Therefore, we decided to study the attitude towards suicide among junior residents. **Methods:** Attitude to suicide among 2nd and 3rd year JRs was assessed by Eskin's Attitude towards Suicide questionnaire, and comparisons were done by Mann Whitney and Kruskal Wallis tests. **Results**: Suicide was less acceptable for the residents (88%), and they were more favouring to 'communicating their problems' (89%). Suicide as a sign of mental illness was not considered by 49%, and 17% were uncertain. Females favoured open discussion of suicide (p=0.038). Those of Muslim religious affiliation had a restrictive attitude to suicide (p=0.001) and believed in punishment after suicide (p=0.001). No difference in attitude was observed between the year of study and between clinical and nonclinical specialities. **Conclusion**: Professional experience that the study population has had, has not influenced their attitudes in desirable ways. Therefore, training in suicide prevention needs to be imparted to all JRs because they function as gatekeepers towards suicide prevention.

Keywords: attitude, suicide, junior resident, cross-sectional study

INTRODUCTION

Suicide is a major public health problem.[1] About 700,000 people die by suicide globally every year [1]; of these 135,000 are people from India,[2] a country with 17.5% of the world's population. The current suicide rate in India is 10.4/100,000 population.[2] Suicide rate is even higher in Kerala at 24.3/100,000 population.[2] Persons aged between 18-45 years accounted for 66.5% of suicides in India.[2] The admission rates in hospitals following suicide attempts is also a significant public health concern in India.[3] Attempted suicide is a risk factor for completed suicide.[4] Mental health morbidity has increased after the advent of the COVID-19 pandemic.[5] A study from Japan depicts an increase in suicide during the COVID-19 pandemic.[6] It is purported that suicide rates would increase during and in the aftermath of the COVID -19 pandemic.[7]

Many general practitioners lack confidence in dealing with suicidal behaviour and have a stigmatising attitude towards common mental illnesses.[8] Emergency room clinicians have been found to display negative attitudes towards suicide in a study from Haryana.[9] A study in

Access the article online:
https://kjponline.com/index.php/kjp/article/view/310
DOI: https://doi.org/10.30834/KJP.35.1.2022.310
Received: 08/12/2021. Accepted: 18/02/2022.
Web publication: 24/02/2022

QR Code

Please cite the article as: Nitin Murali TN, Smitha Ramadas. Attitude towards suicide among junior Residents-A cross-sectional study. Kerala Journal of Psychiatry. 2021; 35(1):39-46

Karnataka showed that postgraduate residents have a negative disposition towards suicide attempters and negative attitudes towards suicide prevention.[10] Medical students showed sympathy towards suicide victims in less than 50 percent of the cases in a study from Japan.[11] In a comparative study among medical students between India and Austria, results show a very restrictive attitude towards suicide in India, rejecting the right to commit suicide and judging suicide as a cowardly act.[12] In a study in North India, medical students were uncertain on aspects like "efforts for suicide prevention and prevention of further suicide attempts".[13] A study from rural Kerala among MBBS students showed an attitude of non -acceptance towards suicide, and less than half of them consider it a sign of mental illness.[14]

A person after a suicide attempt or who is suicidal may be primarily seen in a general health system. About two-thirds of people who die by suicide had been found to have visited their general practitioners a month before and 40 % a week before suicide.[15] A non-judgemental attitude towards suicide is essential when examining patients who are distressed or depressed. Patients with a suicidal risk are known to communicate in indirect and ambivalent ways.[16] Having an empathetic attitude to patients with a risk for suicide would help them open up to the primary contact doctor, which could pave the way for further psychiatric assessment and intervention.

Suicides among physicians are found to be higher than in the general population.[17] The suicidal ideation among medical students is also high.[18] Medical students are more reluctant to seek psychiatric help. Could attitude to suicide be a deterring factor in seeking professional help? [19]

Junior residents (JRs) usually are the doctors who are the responsible first point of contact with patients in casualty in Medical College setting; they are also involved in training interns. For the purpose of our study, we considered all doctors doing MD/MS in our institution as junior residents. So, their attitude to patients with suicide risk is detrimental in suicide risk assessment and care. There are not many studies about attitude to suicide among junior residents in India and none from Kerala, a state with a consistently high suicide rate in India. Due to the reasons mentioned above, we decided to study the attitude towards suicide among junior residents.

Aims and objectives

The aim was to study the attitude to suicide among junior residents in a government medical college in Kerala and to compare the attitude among the various sociodemographic and professional subgroups

MATERIALS AND METHODS

This was a cross-sectional study conducted in a Government Medical College in Kerala. This is a tertiary care centre with 1436 beds. The daily OP turnover is 1436 patients, and the casualty turnover is around 600 patients. On average, three attempted suicide cases reach the casualty during 24 hours. There are 143 junior residents enrolled every year in various specialities. All second-and third-year junior residents who were willing to participate and gave informed consent were included in the study. At the time of doing the study, first-year JRs had not enrolled in our institution. So the sampling method adopted was total population sampling.

After obtaining Institutional Ethics Committee clearance (Institutional Ethics Committee, IEC/GMCTSR/001/2021), the junior residents were approached through WhatsApp regarding the study. Participant information sheets, consent forms and questionnaires were distributed as google forms through WhatsApp to second and third-year JRs through common groups. Those who did not acknowledge were sent a polite reminder individually through WhatsApp. Those residents who still did not respond were contacted telephonically and invited for participation. A further personal reminder through WhatsApp was given. Those who still did not respond were not taken up for the study. Only those respondents who consented were included. We got a few responses from other medical colleges, and those were not included.

Face to face data collection using paper and pen were not done in keeping with covid appropriate behaviour. The junior residents were requested to complete the forms at their convenience, not interfering with their routine hospital duties.

The data were collected using a specially designed proforma to record the sociodemographic details and other study variables. Attitude to suicide was assessed using the Eskin's attitude towards suicide scale (E-

ATSS)[20] constructed by Eskin M. The scale has 24 items arranged as six factors. The factors are acceptability of suicide (eight items), punishment after death (five items), suicide as a sign of mental illness (three items), communicating psychological problems (four items), hiding suicidal behavior (two items) and open reporting and discussion of suicide (two items). The total score under each subscale is calculated by adding the scores of all items under each factor and then dividing them by the number of items. The subscale scores range from 1 to 5, with higher scores indicating higher levels of subscale contents, which means higher scores indicate higher levels of endorsement of respective items. Responses were collected on a five-point Likert scale, scored as follows (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, and (5) strongly agree.

The scale has a clear-cut factor structure and good psychometric properties.[21,22] The Cronbach's alpha of acceptability of suicide, punishment after death, suicide as a sign of mental illness are 0.9 each, that of communicating psychological problems 0.67, hiding suicidal behaviour 0.73, and open reporting and discussion of suicide 0.57. Permission was obtained from the author, Eskin M, through email to use the scale.

The scale was used in two studies in Kerala to assess the attitude to suicide among MBBS students.[14,23] A separate mail was created for the purpose of the study by the authors, and the responses collected through google forms were analysed.

Statistical analyses

Statistical analyses were carried out using the Statistical Package for Social Sciences, sixteenth version: SPSS Inc 16.0. Released 2007. (SPSS for Windows, Version 16.0 Chicago, SPSS Inc). The data were checked for normality by the Kolmogorov Smirnov test. P-value was 0.001; the sample was non-normal in distribution, and therefore non-parametric statistics were used for analysis. Descriptive statistics such as frequency, percentages, median and interquartile range were used to describe the sociodemographic and factor scores. Comparisons were carried out using the Mann Whitney U test and the Kruskal Wallis test. To compare two groups, we used the Mann Whitney U test and to compare three groups, we used the Kruskal –Wallis test.

RESULTS

Out of a total of 286 JRs, 255 (89%) responded to the questionnaire; eight psychiatry residents were excluded from this study because we believed that their focussed specialised training in Psychiatry might influence their attitude and, therefore, their responses. The sociodemographic data of study participants are depicted in Table 1. The minimum age of the participants was 24 years, and the maximum was 49 years; the median age was 28 years with an interquartile range (IQR) of 2.

Table 1-Sociodemographic and academic profile of study participants

Variable	Category	n=247 (%)
Marital Status	Unmarried	103 (41.7)
	Married	144 (58.3)
Gender	Female	169 (68.4)
	Male	78 (31.6)
Religion	Hindu	142 (57.5)
	Muslim	45 (18.2)
	Christian	60 (24.3)
Speciality	Non-clinical	54 (21.9)
	Clinical	193 (78.13)
Year of study	Second	138 (55.9)
	Third	109 (44.1)

We analysed the distribution of scores of each factor of the attitude scale (Table 2). We found that 'acceptability of suicide' scored the lowest median of 1.50, whereas 'communicating psychological problems' scored the highest median of 4.25. 'Suicide as a mental illness' had the highest interquartile range of 2, followed by 'punishment after death' (1.6), denoting that more JRs had varying attitude in these factors. Residents also had an undecided attitude towards 'suicide as a sign of mental illness' (median 2.67).

When we studied a prototypal salient item, 'suicide can be a solution to some problem', under the 'acceptability of suicide' factor, we observed that 218 JRs (88.2%) disagreed, 11 JRs (4.5%) agreed, and 18(7.3%) were undecided.

Table 2- Distribution of scores of each factor

Factor in E-ATSS	Range	Median	IQR
Acceptability of suicide	1.00-4.00	1.50	1
Suicide as a sign of mental illness	1.00-5.00	2.67	2
Punishment after death	1.00-5.00	2.00	1.6
Communicating psychological problems	1.00-5.00	4.25	1
Hiding suicidal behaviour	1.00-5.00	2.00	1
Open reporting and discussion of suicide	1.00-5.00	3.50	1

E-ATSS- Eskin's attitude towards suicide scale, IQR- interquartile range

In the item, 'people who kill themselves are mentally ill', a salient item in the factor, 'suicide is a sign of mental illness', 121 JRs (49 %) disagreed, 84(34 %) agreed, and 42 (17 %) were undecided.

As regards the item, 'people who kill themselves would be punished in the other world', 164 JRs (66.39%) disagreed, 27 (10.9 %) agreed, and 56 (22.67%) were undecided.

Analysing a prototypal item under the factor 'communicating psychological problems', 221 participants (89%) agreed, 12 (4.9%) disagreed and 14(5.6%) were undecided regarding communicating to friends and seeking help.

Table 3- Gender differences in attitude to suicide

Factor in E-ATSS	Female (n=169) Mean rank score	Male (n=78) Mean rank score	Z Value	p-value
Acceptability of suicide	127.99	115.35	-1.305	0.192
Suicide as a sign of mental illness	125.34	121.10	-.439	0.661
Punishment after death	127.01	117.47	-.982	0.326
Communicating psychological problems	120.99	130.53	-.992	0.321
Hiding suicidal behaviour	127.22	117.03	-1.068	0.285
Open reporting and discussion of suicide	130.27	110.42	-2.071	0.038*

*p<0.05=significant, E-ATSS- Eskin's attitude towards suicide scale

Table 4- Differences in attitude to suicide based on marital status

Factor in E-ATSS	Unmarried (n=103) Mean rank score	Married (n=144) Mean rank score	Z value	p-value
Acceptability of suicide	130.54	119.32	-1.228	0.219
Suicide as a sign of mental illness	115.33	130.20	-1.631	0.103
Punishment after death	112.57	132.17	-2.138	0.033*
Communicating psychological problems	119.38	127.31	-.875	0.382
Hiding suicidal behaviour	116.40	129.44	-1.450	0.147
Open reporting and discussion of suicide	132.07	118.23	-1.532	0.126

*p<0.05=significant, E-ATSS- Eskin's attitude towards suicide scale

Table 5- Difference in attitude to suicide based on religion

Factor in E-ATTS	Hindu (n=142) Mean rank score	Muslim (n=45) Mean rank score	Christian (n=60) Mean rank score	X^2	df	P-value
Acceptability of suicide	136.61	93.60	116.97	13.399	2	0.001*
Suicide as a sign of Mental illness	121.05	136.23	121.82	1.656	2	0.437
Punishment after death	98.64	197.74	128.71	66.852	2	0.001*
Communicating psychological problems	120.65	129.40	127.87	0.770	2	0.680
Hiding suicidal behaviour	113.55	144.64	133.24	8.192	2	0.017*
Open reporting and discussion of suicide	127.95	129.52	110.51	2.961	2	0.228

X^2 - Chi-square value, df- degrees of freedom, *p<0.05=significant, E-ATSS- Eskin's attitude towards suicide scale

When we analysed a prototypal item of 'hiding a suicide attempt', in the factor' hiding suicidal behaviour', we observed that 129 participants (52.2%) disagreed, 40 (16.19%) agreed, and 78 (31.6%) were undecided.

Considering, 'the matter of suicide should be discussed openly among friends' which is a salient item in the factor, 'open reporting and discussion of suicide', we found that 25 participants (10.12%) disagreed, 199 (80.5 %) agreed, and 23 (9.31 %) were undecided.

In order to compare the attitude to suicide between male and female groups, we used the Mann Whitney U test. It showed a statistically significant difference in the factor' open reporting and discussion of suicide' (Z= -2.071, p=0.038); significantly higher in the female group, with a mean rank of 130.27 for females and 110.42 for males. (Table 3)

When we compared the attitude to suicide between married and unmarried groups, we found a statistically significant difference in the factor, 'punishment after death' (Mann Whitney U test); significantly higher in the unmarried group (Z=-2.138, p=0.033) with a mean rank of 112.54 for unmarried residents and 132.17 for married residents (Table 4).

The attitude to suicide among JRs belonging to thethree different religions was compared using the Kruskal Wallis test. It showed a statistically significant difference in the factor' acceptability to suicide' between the different religions $x^2(z)=13.399$, p=0.001 with mean rank acceptability to suicide domain score of 136.61 for participants belonging to Hindu religion, 93.60 for Muslim religion and 116.97 for the Christian religion. There was also a significant difference in the factor 'punishment after death' $x^2(z)=66.852$, p=0.001 with a mean rank score of 98.64 for participants of Hindu religious orientation, 197.74 for Muslim religious orientation and 128.71 for Christian religious orientation. A significant difference was also observed in the factor, 'hiding suicidal behaviour', $x^2(z)=8.192$, p=0.017 with a mean score of 113.55, 144.64, 133.24 for participants with Hindu, Muslim, and Christian religious orientations, respectively (Table 5).

We compared the attitude to suicide between clinical and nonclinical specialities. No statistically significant differences emerged in attitude to suicide based on the speciality (Table 6). When we compared the attitude to suicide between the year of study (2nd and 3rd year), we could not find any significant differences between them (Table 6).

DISCUSSION

In our study, regarding the 'acceptability of suicide' factor, the median score was 1.5, indicating that the residents have a restrictive attitude or low acceptability to suicide. We observed that 218 participants (88%) disagreed with the item that 'suicide is a solution to problems". This is similar to other studies conducted among medical students in India,[14,23,] whereas in western countries, students have a more accepting attitude to suicide.[24] An accepting attitude to suicide can act as a suicide risk factor.[25] On the other hand, low acceptability to suicide could restrict residents from

seeking help from others if at all they develop suicidal ideas. The low acceptability of suicide could also lead to a negative attitude towards suicidal patients and patients who present to emergency services following suicide attempts.

JRs were undecided in considering suicide as a mental illness (median= 2.67). It is interesting to note the divided responses in this area; 49% of the JRs disagreed that suicide is a sign of mental illness; 17% were undecided, and only 34% could attribute suicide to mental illness. This indicates the lack of awareness of mental health and suicide. A 'medical or illness model' of suicide[12] is beneficial in that it could urge for mental health interventions, and the patients would be benefitted. Suicidal behaviour and attempts are well known to precede actual suicide. As a doctor exposed to suicidal patients, awareness in this regard can help them communicate to patients empathetically and persuade them for psychiatric help. This could help prevent further attempts. Attempted suicide is a risk factor for further suicides.[4] Capacity building and gatekeeper training for suicide prevention could increase their awareness and bring attitudinal change in this area.

JRs were less agreeable to 'punishment after death' (median=2);66% of them disagreed. Other studies in India among medical students have shown that they were undecided in this factor.

Our JRs had a favourable attitude towards 'communicating psychological problems' (median=4.25); 89% of the participants favoured communicating suicidal ideas and seeking help. This is a positive attitude as it helps them reach out to mental health practitioners. This is in line with other studies conducted in India.[14,23]

Our JRs were not favourable for 'hiding suicidal behaviour' (Mean=2). Although 52 % of the study participants were not agreeable to concealing suicidal behaviour, 16% of JRs favoured hiding suicidal behaviour, and 31% were undecided. This is of concern since a valuable and timely opportunity to assess suicide risk and intervene is lost.

They were also more agreeable to open reporting and discussion on suicide (3.50); 80.5 % of JRs were agreeable to open discussion of suicide among friends. This indicates less social stigma to suicide among residents, which is a healthy attitude and needs to be encouraged. The open discussion provides an opportunity to seek and offer help.

Comparing male and female JRS, females were more agreeing to open reporting and discussion of suicide (Z= -2.071, p=0.038). This is similar to another study from Kerala.[14] In a study comparing gender differences to attitudes towards suicide, men had a restrictive attitude in talking about suicide.[26] Women were found to have a more sympathetic attitude towards suicidal adolescents in a study by White et al.[27]

Among religions, participants of Muslim religious orientation had an unacceptable attitude towards acceptability to suicide. They were more convinced towards punishment after death and hiding suicidal behaviour, followed by participants belonging to Christian and Hindu religious orientation, respectively. This difference is because Islam religion is reported to have a generally non-accepting attitude to suicide.[28] This also confers protection from suicide risk. This attitude is in line with those of most countries with predominantly Muslim religious affiliation, as observed by Eskin et al. in the study, comparing the attitudes towards suicide in university students from 12 countries.[24] In the study of suicidal behaviour and attitudes in Austrian and Turkish high school students, Turkish students (mainly of Muslim religious orientation) have similar attitudes to suicide as in our study; this study identified that cultural factors play a significant role in attitude towards suicide.[29]

No significant differences in attitude were observed between nonclinical and clinical speciality junior residents. Though JRs of clinical specialities often handle patients at risk of suicide, this has not made a difference in their attitude to suicide compared with nonclinical JRs. Similarly, there were no significant differences in attitude between the year of study (2nd and 3rd year JRs). Experience has not influenced attitude to suicide.

Strengths

We had adopted a total population sampling technique, and 89% of the study population responded. The data was collected through google forms distributed through WhatsApp, adhering to the Covid protocol at the time of the study. We followed a systematic method for data collection.

Limitations

The study was carried out from a single institution and therefore cannot be generalised. Social desirability bias could have affected the responses, as in any attitude study. Attitude may not always be translated into behaviour. Eskin's Attitude towards Suicide Scale has not been validated in our population. However, the tool had been used to study the attitude to suicide among medical students in two studies in Kerala.

CONCLUSIONS

The junior residents were less accepting of suicide as a way of dealing with difficult situations. Their attitudes were more favourable towards open communication of psychological problems. But regarding their attitude about 'suicide as a sign of mental illness,' the response was more equivocal. Religion was a significant factor affecting the attitude; gender and marital status had an influence; neither the year of study nor experience working in the clinical specialities had much bearing on the attitude towards suicide. This underscores the importance of systematic professional training regarding suicide and suicide prevention to all junior residents. They can function as future gatekeepers towards suicide prevention in their professional capacity to deal with suicidal patients.

Suggestions and future direction

Focussed training to enhance knowledge, attitude and skills regarding suicide and suicide prevention needs to be imparted to all junior residents, especially during periods of mental health crises caused by pandemics and other natural disasters. As suicide among doctors is higher than the general population, inculcating a right attitude to suicide among residents may nudge them to seek professional help for suicide risk if the situation warrants it.

Acknowledgement

Ms Rejani PP, Associate Professor of Statistics, Department of Community Medicine, Government Medical College, Thrissur for the statistical guidance

Financial support and sponsorship:
None.
Conflict of interest:
None declared.

REFERENCES

1. World Health Organisation [Internet]. [Reviewed on 2021 Jul 07, Cited on 2021 Jul 03]. Available from: https://www.who.int/news-room/fact-sheets/detail/suicide
2. National Crime Records Bureau [Internet]. Ministry of Home Affairs, Government of India [Cited on 2021 Jul 03]. Available from: https://ncrb.gov.in/en/accidental-deaths-suicides-india-2019
3. Kumar N, Rajendra R, Majgi SM, Krishna M, Keenan P, Jones S. Attitudes of General Hospital Staff Toward Patients Who Self-harm in South India: A Cross-Sectional Study. Indian J Psychol Med. 2016;38(6):547-552.
4. Hawton K, Fagg J. Suicide, and other causes of death, following attempted suicide. Br J Psychiatry. 1988; 52:359-66.
5. Verma S, Mishra A. Depression, anxiety, and stress and sociodemographic correlates among general Indian public during COVID-19. Int J Soc Psychiatry. 2020;66(8):756-762.
6. Sakamoto H, Ishikane M, Ghaznavi C, Ueda P. Assessment of Suicide in Japan During the COVID-19 Pandemic vs Previous Years. JAMA Netw Open. 2021;4(2):e2037378.
7. Sher L. The impact of the COVID-19 pandemic on suicide rates. QJM. 2020 Oct 1;113(10):707-712.
8. Coppens E, Van Audenhove C, Gusmão R, Purebl G, Székely A, Maxwell M, et al. Effectiveness of General Practitioner training to improve suicide awareness and knowledge and skills towards depression. J Affect Disord. 2018 Feb; 227:17-23.
9. Sethi S, Shipra U. Attitudes of clinicians in emergency room towards suicide. Int J Psychiatry Clin Pract. 2006;10(3):182-5.
10. Gururaj GP, Gopalli NA, Reddy MM, Chandrakumar RS. Opinions and attitudes of postgraduates towards suicide attempts in a rural tertiary medical college of India. Indian Journal of Social Psychiatry, 2021; 37(2): 191.
11. Sato R, Kawanishi C, Yamada T, Hasegawa H, Ikeda H, Kato D, et al. Knowledge and attitude towards suicide among medical students in Japan: preliminary study. Psychiatry Clin Neurosci. 2006 Oct;60(5):558-62.
12. Etzersdorfer E, Vijayakumar L, Schöny W, Grausgruber A, Sonneck G. Attitudes towards suicide among medical students: comparison between Madras (India) and Vienna (Austria). Soc Psychiatry Psychiatr Epidemiol. 1998;33(3):104-10.
13. Nebhinani N, Jagtiani A, Chahal S, Nebhinani M, Gupta R. Medical students' attitude toward suicide prevention: An exploratory study from North India. Med J DY Patil Univ 2017; 10:277-80

14. Sharadha NR, Vinuprasad V. Attitude towards Suicide Among Medical Students in a Medical College of Rural South India. Asian Pacific Journal of Health Sciences, 2019;6(4):69-75.
15. Houston K, Haw C, Townsend E, Hawton K. General practitioner contacts with patients before and after deliberate self harm. Br J Gen Pract. 2003;53(490):365-70.
16. Schulberg HC, Bruce ML, Lee PW, Williams JW Jr, Dietrich AJ. Preventing suicide in primary care patients: the primary care physician's role. Gen Hosp Psychiatry. 2004;26(5):337-45.
17. Schernhammer ES, Colditz GA. Suicide rates among physicians: a quantitative and gender assessment (meta-analysis). Am J Psychiatry. 2004;161(12):2295-302.
18. Coentre R, Góis C. Suicidal ideation in medical students: recent insights. Adv Med Educ Pract. 2018; 9:873-880.
19. Tjia J, Givens JL, Shea JA. Factors associated with undertreatment of medical student depression. J Am Coll Health. 2005;53(5):219-24
20. Eskin M. The effects of religious versus secular education on suicide ideation and suicidal attitudes in adolescents in Turkey. Soc Psychiatry Psychiatr Epidemiol. 2004;39(7):536-42.
21. Eskin M. The effects of individualistic-collectivistic value orientations on non-fatal suicidal behavior and attitudes in Turkish adolescents and young adults. Scand J Psychol. 2013;54(6):493-501.
22. Nader IW, Tran US, Baranyai P, Voracek M. Investigating dimensionality of Eskin's attitudes toward suicide scale with Mokken scaling and confirmatory factor analysis. Arch Suicide Res. 2012;16(3):226-37.
23. Vinuprasad VG, Sharadha NR, Eskin M. Change in attitude towards suicide with current undergraduate training in psychiatry: a cross-sectional study. *Kerala Journal of Psychiatry* 2020;*33*(2):153–157.
24. Eskin M, Kujan O, Voracek M, Shaheen A, Carta MG, Sun JM, et al. Cross-national comparisons of attitudes towards suicide and suicidal persons in university students from 12 countries. Scand J Psychol. 2016 Dec;57(6):554-563.
25. Arnautovska U, Grad OT. Attitudes toward suicide in the adolescent population. Crisis. 2010;31(1):22-9.
26. Poreddi V, Thimmaiah R, Ramu R, Selvi S, Gandhi S, Ramachandra, et al. Gender Differences Related to Attitudes Toward Suicide and Suicidal Behavior. Community Ment Health J. 2016;52(2):228-32.
27. White H, Stillion JM. Sex Differences in Attitudes Toward Suicide: Do Males Stigmatize Males? Psychology of Women Quarterly, 1988; 12(3), 357–366.
28. Ates, S. The Koran and its holy meaning. Kilic kitabevi, Ankara. 1975.
29. Eskin M, Voracek M, Stieger S, Altinyazar V. A cross-cultural investigation of suicidal behavior and attitudes in Austrian and Turkish medical students. Soc Psychiatry Psychiatr Epidemiol. 2011;46(9):813-23.