Examining adolescents' perception of social stigma related to COVID-19 according to their personality types

Ergenlerin kişilik tiplerine göre COVID-19 ile ilişkili sosyal damgalama algısının incelenmesi

Remziye CAN[1], Elif SARAÇ[2], Alaettin ÜNSAL[3]

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***1-**Odunpazarı District National Education Department of Strategy and Development, Eskisehir, Türkiye.*

***2-**Turkish Ministry of National Defense, Ankara, Türkiye.*

***3-**Eskisehir Osmangazi University, Faculty of Medicine, Department of Public Health, Eskisehir, Türkiye.*

***Sorumlu Yazar / Corresponding Author:** Remziye CAN*

e-posta / e-mail: drremziyecan@gmail.com

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Abstract

The aim of this study is to examine the level of adolescents' perceptions of social stigma associated with COVID-19 in terms of personality types and some demographic variables.1248 students from three high school in a province in Turkey included in the study. In this cross-sectional design study, demographic characteristics questionnaire, items related to COVID-19 social stigma, and Ten-Item Personality Scale were used for data collection. Shapiro Wilk test, Student t test, Chi-Square test and Spearman correlation analysis were conducted to determine associations between social stigma perceptions and demographic variables and personality characteristics. In this study, 37.9% of participants reported experiencing social stigma related to COVID-19. It has been determined that there is a relationship between demographic variables, personality types and perceptions of social stigma associated with COVID-19. Additionally, a positive and significant relationship was found between COVID-19 Social Stigma and Openness to Experience and Emotional Balance scores. In this study, it was found that adolescents who are open to experience and emotionally stable have a higher perception of social stigma related to COVID-19. Our results showed the necessity of interventions aimed at adolescents' expression of their emotions and the negative effects of stigma.

Keywords: Adolescent, perception, COVID-19, personality, social stigma

Özet

Bu çalışmanın amacı; ergenlerin COVID-19 ile ilişkili sosyal damgalanma algı düzeylerinin kişilik tipleri ve bazı demografik değişkenler açısından incelemektir. Araştırmaya Türkiye'nin bir ilindeki üç lisede öğrenim gören 1248 öğrenci dahil edildi. Kesitsel tasarımlı bu çalışmada veri toplama işlemi için demografik özellikler soru formu, COVID-19 sosyal damgalanmasıyla ilişkili maddeler ve On Maddeli Kişilik Ölçeği kullanıldı. Sosyal damgalanma algıları ile demografik değişkenler ve kişilik özellikleri arasındaki ilişkileri belirlemek amacıyla Shapiro Wilk testi, Student-t testi, Ki-Kare testi ve Spearman korelasyon analizi uygulandı. Bu çalışmada katılımcıların %37,9'u COVID-19 ile ilgili sosyal damgalanma yaşadığını bildirmiştir. Demografik değişkenler ile kişilik tipleri ve COVID-19 ile ilişkili sosyal damgalanma algıları arasında bir ilişki olduğu belirlenmiştir. Ayrıca COVID-19 döneminde Sosyal Damgalama ile Deneyime Açıklık ve Duygusal Denge puanları arasında da pozitif ve anlamlı bir ilişki saptanmıştır. Bu çalışmada deneyime açık ve duygusal açıdan istikrarlı olan ergenlerin, COVID-19 ile ilgili sosyal damgalanma algısının daha yüksek olduğu saptanmıştır. Elde ettiğimiz sonuçlar ergenlerin duygularını ifade etmelerine ve damgalanmanın olumsuz etkilerine yönelik müdahalelerin gerekliliğini göstermiştir.

Anahtar Kelimeler: Adolesan, algı, COVID-19, kişilik, sosyal damgalanma

Introduction

The concept of stigma is a complex one, it can be conceptualized it as a combination of negative stereotypes, prejudices and discrimination (1). Adolescence is a time when the influence and importance of peer relationships and opinions increases significantly, making adolescents more susceptible to stigma (2). Adolescence is a time when individuals are most sensitive to stigma and most likely to develop mental disorders. In this reason, during to adolescence period recognizing variables that influence stigma can identify issues that need to be targeted and help reduce stigma in a timely and effective manner (3). Humankind has encountered outbreaks of varying prevalence and severity throughout history, such as the 1918 Spanish flu, the 1994 Indian plague, the 2003 SARS outbreak, and the 2009 Mexican H1N1 pandemic. During these outbreaks, individuals were discriminated against, labeled, and/or experienced a loss of status due to a perceived connection with the respective diseases (4, 5). COVID-19 outbreak, which surfaced at the end of 2019, had both physical and psychosocial impacts on individuals. The rapid spread of misinformation and rumors, even faster than the outbreak itself, led to detrimental effects, including social stigmatization (6). One of the most prevalent psychosocial issues during pandemics or outbreaks is social stigma, which induces widespread fear and dehumanizes individuals affected by the disease (7, 8). Individuals facing this stigma have encountered diminished psychological well-being, a lower quality of life, heightened socioeconomic burdens, harassment, violence, bullying, disability, shame, and feelings of self-doubt. The prevailing negative sentiments, stereotypes, and assumptions have discouraged them from adopting healthy behaviors (9). The measures implemented in response to the outbreak, such as social distancing, the use of personal protective equipment (such as glasses and masks), and travel restrictions, have contributed to a sense of 'othering' among individuals (10). The perception of social stigma varies from person to person, and this difference can be attributed to personality factors. The factors of personality is influenced by both hereditary and environmental factors (11). Personality refers to the traits that encompass the psychological processes of individuals, including their feelings, thoughts, and behaviors (11) as well as the impact of various reactions and attitudes that have formed as a reflection of their personalities (12). There are numerous models that are used to describe personality. One of them is the five-factor personality model with the dimensions of openness to experience, conscientiousness, extraversion, agreeableness and emotional stability (13).

One of the groups most affected by environmental and biological variables in the formation of personality is adolescents. They are easily influenced by their social environment and peers and have a high tendency to risk taking behavior and dysfunctional mental health, and they are vulnerable to danger due to these characteristics. Also they are one of the priority risks group that posed a risk to public health due to their strong social ties and difficulties in adapting to the implementation of isolation measures (14). The psychological needs of adolescents who are at high risk of transmitting infections in outbreaks have been ignored in most countries (15). So the lack of information on personal and sociodemographic variables associated with stigma and pandemics on adolescents, we examined the relationship between their some demographic variables and personality types during COVID-19.

ORCID:
Remziye CAN: 0000-0001-5913-6007,
Elif SARAÇ: 0000-0002-4126-9327,
Alaettin ÜNSAL: 0000-0001-8353-1605

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Material and Method

This cross-sectional study was conducted with high school students in a western province of Turkey from January to June 2022. The inclusion criteria for the study required participants to be enrolled in a high school located in the city center of Eskisehir, aged between 14-18, willing to volunteer, without any chronic illness, and not diagnosed with a psychiatric condition.

The study encompassed high school students in the city center, comprising 33,080 students across 88 high schools. The sample size for this study was calculated as minimum 960 using Minitab 16.0 statistical package program (Power of test: 0.796, p=0.50, Comparison p:0.25, Alpha=0.05). Employing the cluster sampling method with a design effect of 2 to mitigate pattern effects, the target sample size for representative results was set at 1920. Each school was treated as a cluster, and a randomization method was employed to select schools until the target sample size was reached. A total of 1890 students from Sehit Hasan Onal Vocational and Technical Anatolian High School (n=380), Beyhan Rifat Cikillioglu Anatolian High School (n=840) and Odunpazari Mustafa Kemal Ataturk Vocational and Technical Anatolian High School (n=670). Written consent was obtained from participants by providing information about the study's purpose during designated lesson times, resulting in the participation of 1248 students (66.03%). Data collection utilized a questionnaire comprising three parts. The first part encompassed demographic characteristics of the students and details related to COVID-19 infection. The second part included questions assessing the level of social stigma related to the COVID-19 disease, while the third part incorporated the 'Ten-item Personality Type Scale. In the scoring of the second part "1 point" was given to each "yes" answer. The points obtained from the questionnaire varied between 0-20. The DUMMY variable with a mean of 0.0001 and a standard deviation of 0.00001 was derived, which showed a normal distribution in accordance with the data. The students were divided into 2 clusters by K-Means cluster analysis due to their knowledge scores. Then, the scores were evaluated by ROC analysis. Positive likelihood ratio (sensitivity/1-specificity) was used to determine the cut-off score (sensitivity = 0.457 and 1-specificity=0.396) (16). The scores 4.5 and above were considered as "social stigmatized". The third part consisted of "Ten-item Personality Inventory (TIPI)". TIPI was developed by Gosling et al. (2003) and the Turkish validity and reliability study was conducted by Atak in 2013. The scale consisted of 5 sub-dimensions (E–Extraversion, A–Agreeableness, C–Conscientiousness, ES–Emotional Stability, and O–Openness to Experience). Questions 5 and 10 pertained to Openness to Experience, questions 3 and 8 to Conscientiousness, questions 1 and 6 to Extraversion, questions 2 and 7 to Agreeableness, and questions 4 and 9 to Emotional Stability (17, 18). The dominant personality trait was determined by evaluating the scores from each sub-dimension. In the analyses, only the total scores of the sub-dimensions were calculated, with the highest score indicating the dominant personality trait. Questionnaire was filled in 15-20 minutes. We express our gratitude to the participants and their families for granting permission.

Data were evaluated with Minitab and SPSS (version 15.0) Statistical Package programs. The conformity of the data to the normal distribution was evaluated using the Shapiro Wilk test. Student t test, Chi-Square test, Spearman correlation analysis were used for statistical analysis. $p<0.05$ was accepted as statistical significance.

For this study, ethical committee approval has been taken with decision date 2/17/2022 decision number: 45 from University of Eskisehir Osmangazi.

Results

In our study, 37.9% of adolescents experienced social stigma associated with COVID-19, while 62.1% did not. The age of the study group ranged from 14 to 18, with a mean of 15.57±1.43. Among the participants, 902 (72.3%) were women, and 431 (34.5%) were in the 9th grade. The income status of 946 participants (75.8%) was moderate. Among the students, 731 (58.6%) had mothers who were primary-secondary school graduates, while 47.9% had fathers with a high school education. Additionally, there were 102 individuals in their families diagnosed with psychiatric illness (Table

1). Previous COVID-19 infection, 63.5% reported that at least one person in their family had been in contact with COVID-19, and 77.9% had been quarantined due to COVID-19 (Table 2).

Table 1: Demographic characteristics of the adolescents

Parameters	COVID-19 Social Stigma			
	Yes n(%)	No n(%)	Total n(%)	X^2/p
Age group(year)				
≥14	203(61.0)	203(39.0)	333(26.7)	1.153/0.562
15-16	194(38.9)	305(61.1)	499(40.0)	
≤17	267(64.2)	149(35.8)	416(33.3)	
Gender				
Female	338(37.5)	564(62.5)	902(72.3)	0.254/0.615
Male	135(39)	211(61.0)	346(27.7)	
Education/grade				
9th grade	161(37.4)	270(62.6)	431(34.5)	1.192/0.755
10th grade	124(39.6)	189(60.4)	313(25.1)	
11th grade	131(38.5)	209(61.5)	340(27.2)	
12th grade	57(34.8)	107(65.2)	164(13.1)	
Income status				
High	99(37.4)	166(62.6)	265(21.2)	0.181/0.914
Middle	585(61.8)	361(38.2)	946(75.8)	
Low	13(35.1)	24(64.9)	37(3.0)	
Mother's graduate				
Illiterate	13(35.1)	24(64.9)	37(3.0)	1.633/0.652
Primary	269(36.8)	462(63.2)	731(58.6)	
High school	169(39.3)	261(60.7)	430(34.5)	
University	22(44)	28(56)	50(4.0)	
Father's graduate				
Illiterate	11(35.5)	20(65.5)	31(2.5)	1.216/0.749
Primary	181(36.4)	316(63.6)	497(39.8)	
High school	236(39.5)	362(60.5)	598(47.9)	
University	45(36.9)	77(63.1)	122(9.8)	
Working mum				
Yes	154(38.5)	246(61.5)	400(32.1)	0.90/0.764
No	319(37.6)	529(62.4)	800(67.9)	
Working dad				
Yes	422(38.4)	676(61.6)	1098(88.0)	1.102/0.294
No	99(66.0)	51(34.0)	150(12.0)	
Psychiatric illness in the family				
Yes	52(43.3)	68(56.7)	120(9.6)	1.665/0.197
No	421(37.3)	707(62.7)	1128(90.4)	

Table 2: Other demographic characteristics of the adolescents

Parameters	Social Stigma Associated with COVID-19			
	Yes n(%)	No n(%)	Total n(%)	X^2/p
Chronic illness				
Yes	49(10.4)	91(11.7)	140(11.2)	0.564/0.453
No	424(38.3)	684(61.7)	1108(88.8)	
Having COVID-19 before				
Yes	204(36.8)	350(63.2)	554(44.4)	0.491/0.483
No	269(38.8)	425(61.2)	694(55.6)	
Contact with COVID-19				
Yes	376(38.7)	596(61.3)	972(77.9)	1.143/0.285
No	97(35.1)	179(64.9)	276(22.1)	
Death in family after contracting COVID-19				
Yes	105(37.9)	172(62.1)	277(22.2)	1.126/0.956
No	368(37.9)	603(62.1)	971(77.8)	
Physically disabled				
Yes	8(36.4)	14(63.6)	22(1.8)	0.022/0.881
No	465(37.9)	761(62.1)	1226(98.2)	
Total	**473(37.9)**	**775(62.1)**	**1248(100)**	

Of the participants, 77.6% answered 'yes' to the sixth question ('If I have COVID-19, it would be thought that I will transmit it to others'). This question had the highest rate of affirmative responses (Table 3). In the study, the mean scores of TIPI and its sub-dimensions were analyzed. A statistically significant difference was found between the mean score of Openness to Experience and COVID-19 Social Stigma ($p<.05$). The mean score of Openness to experience was 8.29±3.06 and Conscientiousness was 8.84±3.03. The correlation analysis of the COVID-19 Social Stigma and TIPI Scale sub-dimensions were conducted. There was a positive and significant relationship between the COVID-19 total score and the Openness to Experience and Emotional Stability ($p<0.05$) (Table 4).

Table 3: The responses of the students to the Items about social stigma associated with COVID-19

Items about Social Stigma Associated with COVID-19	Yes n(%)		No n(%)	
I hesitate to go to the hospital because of COVID-19 disease.	224	17.9	1024	82.1
If I have COVID-19, I want to hide it from others.	60	4.8	1188	95.2
If I am diagnosed with COVID-19, it is thought that my relatives got the disease.	881	70.6	367	29.4
I hesitate people around me to know that I have friendships with people who had threated for COVID-19.	106	8.5	1142	91.5
If I have COVID-19, I do not want to go to the crowded places for a long time because I'm uncomfortable with the way people look at me.	275	22.0	973	78.0
If I have COVID-19, it would be thought that I will contract it to the others.	968	77.6	280	22.4

I don't want to tell people that I have COVID-19 to avoid negative reactions.	81	6.5	1167	93.5
The looks of my neighbors and friends bother me because of having COVID-19.	228	18.3	1020	81.7
If I have COVID-19, some people think I'm not adapting protective measures.	526	42.1	722	57.9
If I have COVID-19, some people think I'm irresponsible towards the community.	347	27.8	901	72.2
I am ashamed of what people would think if I need treatment for COVID-19.	173	13.9	1075	86.1
If I haveCOVID-19, I would be discriminated by my friends.	82	6.6	1166	93.4
I am ashamed to be as risky in “HES code” interms of COVID-19.	79	6.3	1169	93.7
If I have COVID-19, I would be discriminated socially.	202	16.2	1046	83.8
If I have COVID-19, people thinkthat’s my fault.	463	37.1	785	62.9
If I have COVID-19, I think I would be denied by others (eg.friend, colleague, darling or couple)	98	7.9	1150	92.1
If I do not adapt protective measures, people would think that I am not reliable.	206	16.5	1042	83.5
If I have COVID-19, people expectless responsibility of me.	177	14.2	1071	85.8
If I have COVID-19, it would be thought that I am an gerious and want to hurt people around me.	77	6.2	1171	93.8
If I have COVID-19, it would be thought that I am a burden to the community.	129	10.3	1119	89.7

**HES code: is a code that identified people with high risk of COVID-19 infection.*

Table 4: Comparisoning dimensions of personality with social stigma associated with COVID-19

Sub-dimensions	Social stigma Associated with COVID-19		
	Yes Mean±SD	No Mean±SD	t test/p
Openness to experience	8.29±3.06	7.63±2.67	**3.699/<0.001**
Conscientiousness	8.84±3.03	8.70±2.92	0.875/0.382
Extraversion	8.30±2.53	8.39±2.36	0.339/0.714
Agreeableness	8.67±2.96	8.63±2.82	0.249/0.803
Neuroticism	8.99±3.13	8.94±2.99	0.433/0.665

Discussion

The pandemic adversely impacted not only the physical health but also the sociological and psychological well-being of individuals (19). One of matter the negatively affect the emotional, mental, and physical health of individuals is social stigma (20). In the study, four out of ten adolescents had COVID-19 infection, seven out of ten had at least one family contact, and three out of ten were social stigmatized associated with COVID-19. Also adolescents who have the personality trait of openness to experience had more social stigma.

It has been noted in the literature that adolescents are more likely than other age groups to contribute to the spread of COVID-19 (21). In our study, 44.4% of the participants had a confirmed COVID-19 infection, 63.5% reported having at least one family member who had contact with COVID-19, and 77.9% acknowledged being in contact themselves. Socialization and peer influence are very important in adolescence and their risk perception is quite low (22). These reasons may have contributed to the spread of the COVID-19 outbreak through adolescents. The exposure to infection, contact with infected individuals, and the experience of isolation, along with facing social stigmatization due to the psychological burdens of having relatives who died after contracting COVID-19, have collectively impacted the quality of life for individuals (23). In our study, 473 (37.9%) of adolescents reported experiencing social stigma associated with COVID-19. The global frequency of people experiencing social stigma is reported to range from 15.9% to 40.90% (23-25). Social stigma and discrimination are the factors affecting people's mental health in the COVID-19 outbreak (26). The social, economic and educational differences could be the main factors affecting the formation of social stigma. It was reported in other studies that individuals under 20 years of age with little symptoms of COVID-19 had a lower level of social stigma perception, while individuals over 65 years of age had higher (27). We found in our study that age did not impact the perception of social stigma. As similarity Duan, Bu and Chen (2020) reported age was not a risk factor for social stigma. Zhang et al (2021) stated that young participants were less likely to approve of social stigmatizing. Erdogan and Ersoy (2022) reported that age was a variable that affected social stigma perceptions. Our findings have shown that there was no statistical difference between gender. As similarity Erdogan and Ersoy (2022) reported that gender was not variable that affected social stigma perceptions. In our study, the difference between education, income status and social stigma was not found to be significant. In our study, no statistical difference was found between the educational status of the mothers, and fathers, having a job, having psychiatric illness in the family and social stigma. It could be explaining that our study group consisted of young participants under the age of 18 with low risk perception. They were generation z, which constituted the under-18 group known as digital natives, and is result-oriented. What matters to them is how much exposure they are to the events (28).

For infectious diseases, early diagnosis, treatment opportunities and taking necessary preventive measures are effective ways to control hereby the contagiousness would be reduced. On the other hand, although social distancing is an effective way to reduce morbidity and mortality, it may increase the Social stigma towards affected populations unintentionally (29, 30). In our study, 77.6% of the participants answered yes to the statement "If I have COVID-19, it is thought that I will contact it to the others". This meant negative thoughts or behaviors caused by being labeled or marginalized by others were about to happen. Our study supported the findings of Zhang et al. (2021). They reported that individuals who had COVID-19 were held more responsible for contagiousness and spread of the disease (24). Outbreaks such as COVID-19 are known to increase fear of infection and social stigma and discrimination against people as they spread around the world (31). In light of our findings, we can say that the adolescents in our study group also experienced similar threats.

Another aim of this study was to determine whether there was a relationship between social stigma and personality types. Because social stigmatization could be shaped with personal characteristics. In our study, there was a statistically significant difference between having the personality type of openness to experience and COVID-19 social stigma. Considering that individuals with openness to experience were developed in terms of imagination, emotionality and curiosity, the high levels of social stigmatization associated with COVID-19 were expected. In the study as the perception of COVID-19 social stigma increased, the score of openness to experience also increased. A similar finding was also valid for the emotional stability. It defined individuals as calm, self-confident, or live to the extremes, angry, depressed and insecure. Uncertainties and unknowns of

the infection threatened the safety of individuals. The findings we obtained might be similar to the characteristics of personality types. Also it might have caused COVID-19 to be perceived as a threat and the social stigmatization score to be high for individuals who were predominate emotionally. Our findings were in line with Smith, Zhu and Fink (2017) (32). In addition, there are also studies supporting our findings that people who feel angry, wrathful or desperate were more likely to perceive social stigmatizing ideas (24).

The limitation of this study is that the calculated sample could not be reached. Another limitation is the expected seasonal feature that adolescents experience in expressing their emotions. Our study was conducted for an age group within 14-18. It may be evaluated for other ages such as younger than 14, too.

Conclusion

In our study, we aimed to evaluate the level of social stigma of adolescents who are the target group in terms of social stigmatization during the COVID-19 outbreak. As far as we know, there is no other study in the literature examining the relationship between social stigma and epidemics in the 14-18 age group. So our study is a unique study due to the sample group and the absence of an example in the literature. Although the level of exposure of adolescence to disease was low, their potential for social stigmatization was high and they should be informed in this regard. Adopting effective, practical measures for adolescents can help to keep themselves and their loved ones. Also talking about “acquiring” or “contracting” COVID-19, not talking about “transmitting COVID-19” “infecting others” or “spreading the virus” were recommended as it implies intentional transmission and assigns blame. And communication with adolescents by sharing sympathetic narratives that humanize the experiences and struggles of individuals or groups affected by the virus because the way we communicate can affect the attitudes and perceptions of the others.

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