JHAD
Health and Development Journal
https://jhad.kmu.ac.ir
10.34172/jhad.1190
JHAD. 2025;14:1190

Original Article

The Predictive Factors of Skin Cancer Preventive Behaviors in Medical Students: A Cross-Sectional Study

Mohsen Momeni[1], Fatemeh Ashrafzadeh[2], Mina Danaei[3*]

[1]Social Determinants of Health Research Center, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran
[2]Student Research Committee, Afzalipour Faculty of Medicine, Kerman University of Medical Sciences, Kerman, Iran
[3]Neuroscience Research Center, Institute of Neuropharmacology, Kerman University of Medical Sciences, Kerman, Iran

***Corresponding Author:** Mina Danaei, Email: m.danaei@kmu.ac.ir

Abstract

Background: Skin cancer represents a public health challenge worldwide. Preventive behaviors against ultraviolet radiation are crucial in decreasing the risk. This study aimed to investigate the predictive factors influencing skin cancer preventive behaviors among clinical medical students at Kerman University of Medical Sciences in 2024.

Methods: This cross-sectional study was conducted on 268 clinical medical students of Kerman University of Medical Sciences in 2024. The self-reported questionnaire included demographic variables, the Appearance-Attention Questionnaire (12 questions with a Likert scale of 1 to 5), and the Skin Cancer Preventive Behaviors Questionnaire (8 questions with a Likert scale of 0 to 4). Univariable and multivariable linear regression analysis were used.

Results: The mean scores for attention to appearance and skin cancer preventive behaviors were 40.58 and 13.17, respectively. The frequency of always wearing a wide-brimmed hat and gloves was 1.5% and 1.1% respectively. The frequency of using sunscreen and sunglasses was 25.4% and 14.9% respectively. The scores of skin cancer preventive behaviors among male students were significantly lower than those of female students ($P<0.001$), and internship students had higher scores of skin cancer preventive behaviors than externship students ($P=0.001$). Additionally, for every one-unit increase in appearance attention score, the score for skin cancer preventive behaviors increased by 0.14 units ($P=0.001$).

Conclusion: A significant number of medical students do not consistently exhibit skin cancer preventive behaviors. Female students, internships, and those who paid more attention to their appearance had a higher score in the area of skin cancer preventive behaviors.

Keywords: Skin cancer, Medical students, Prevention, Attention to appearance

Citation: Momeni M, Ashrafzadeh F, Danaei M. The predictive factors of skin cancer preventive behaviors in medical students: a cross-sectional study. Health Dev J. 2025;14:1190. doi:10.34172/jhad.1190

Received: June 1, 2025, **Revised:** September 23, 2025, **Accepted:** September 24, 2025, **ePublished:** October 29, 2025

Introduction

Skin cancer, characterized by the abnormal growth of skin cells that can invade other body parts, has emerged as a significant public health concern globally (1). Recent years have seen a dramatic increase in skin cancer incidence, making it the most common type of cancer in the Middle East. It is notably prevalent in Iran compared to other cancer types (2, 3, 4, 5). This high prevalence is linked to various factors, including frequent sun exposure, climate change, such as ozone layer depletion, and shifts in individual and societal behaviors (6). specially, provinces in central Iran, which experience greater sunshine hours, demonstrate a heightened need for skin cancer prevention interventions (7).

Ultraviolet (UV) radiation exposure, genetic predisposition, and environmental hazards are risk factors for skin cancer. Also, the incidence of skin cancer tends to be higher among older adults (8). Effective preventive measures, including encouraging patients to adopt sun safety practices, avoiding direct sun exposure during peak hours (10 a.m. to 2 p.m.), wearing protective clothing, hats, sunglasses, and using sunscreen, are essential components of public health initiatives aimed at reducing this risk (9).

In addition to its physical repercussions, skin cancer significantly impacts the quality of life of individuals and poses substantial financial burdens on society. Individuals' perceptions of their body image also play a crucial role in self-esteem and mental health; societal standards of beauty can lead to negative emotional outcomes when individuals feel they do not meet these ideals (10, 11, 12). Therefore, cultivating a positive body image along with awareness of skin cancer risks is important.

Medical students, as future healthcare providers, are in a good position to advocate for skin cancer preventive

behaviors in their communities. Their demonstration of these protective behaviors can serve as a behavioral role model for the general public. Therefore, the present study aimed to investigate the relationship between appearance concern and skin cancer preventive behaviors among clinical medical students of Kerman University of Medical Sciences in 2024.

Materials and Methods

Study Design and Participants

The present study was a cross-sectional study conducted on medical students at Kerman University of Medical Sciences in the clinical stage in 2024. Convenience sampling was used to select participants among medical students who are currently in clinical stages. Using previous studies and considering the correlation coefficient of the appearance attention score with the skin cancer preventive behaviors score (r = 0.237) (13), the alpha coefficient of 0.05, and the beta coefficient of 0.05, the sample size was calculated using the following formula, as 227 participants. Considering a withdrawal rate of 15%, the final sample size was calculated as 268 participants.

$$n = \left(\frac{Z_{1-\frac{\alpha}{2}} + Z_{1-\beta} \times \sqrt{1-r^2}}{r} \right)^2 + 2$$

The inclusion criterion for the study was enrollment in the clinical stage of medicine at Kerman University of Medical Sciences, and the exclusion criterion was refusal to participate in the study.

The data collection method was a self-administered questionnaire. The first part of the questionnaire included demographic variables, including age, gender, family income adequacy, marital status, place of residence, educational level, parents' education, and parents' occupation. The second part was the Appearance-Attention Questionnaire, which consisted of 12 questions. The appearance-attention questions were scored on a Likert scale (ranging from "not at all" to "very much") from 1 to 5. Therefore, the range of appearance-attention scores was 12 to 60. In the study by Mohammadi et al the content and face validity of the questionnaire were examined. Its reliability was also confirmed by Cronbach's alpha (alpha range in the preliminary study was 0.62 to 0.85, and in the total sample size was 0.66 to 0.87) (13). The third part of the questionnaire was the Skin Cancer Preventive Behaviors questionnaire, which consisted of 8 questions. To score skin cancer preventive behaviors, scores were assigned based on a Likert scale, ranging from "never" (score 0) to "always" (score 4). In a study conducted by Kaviani et al all Cronbach's alpha coefficients of the questionnaire were above 0.7 (14).

The questionnaires were distributed among the study participants after obtaining verbal consent from them to participate in the study and explaining the study objectives by the project researcher. The researcher distributed the questionnaires in different educational hospitals and in different departments. During the data collection process, the researcher was present in the research environment and answered participants' questions as needed.

Statistical Analysis

The data were analyzed using SPSS version 26 software. Descriptive statistics indicators such as frequency, percentage, mean, and standard deviation were used to describe the research data. To better describe the data, the mean score was calculated using the following formula for the scores of attentions to appearance and skin cancer preventive behaviors, on a scale of 100.

$$((\text{Mean-Min}))/((\text{Max-Min})) \times 100$$

Univariable linear regression analysis was used to examine the relationship between the variables under study and the score of skin cancer preventive behaviors. In the next step, variables with p-values lower than 0.2 were identified, and a multivariable linear regression model was used to assess the predictive factors of skin cancer preventive behaviors. A statistical significance level of less than 0.05 was considered.

Ethical Considerations

This study was approved by the local ethics committee of Kerman University of Medical Sciences (IR.KMU.AH.REC.1402.108)

Results

A total of 268 clinical students participated in the present study. The mean age of the participants was 24.14 ± 1.58 years. More than half of the participants were female (52.2%). Most of the participants were single (84.3%) and in the externship stage (68.7%). Nearly 42.3% of the participants lived in a private home with their families. In terms of family income adequacy, about 57.1% of the participants stated that their income was relatively adequate. In terms of parental education level, 43.8% of fathers had a postgraduate or higher education level. Approximately 44.8% of participants' mothers were housewives. (Table 1)

The average score of students regarding their attention to appearance was 59.55 on a scale of 0 to 100, indicating that they scored above half. In contrast, their average score for skin cancer preventive behaviors was 41.16, which is below half the scale (Table 2).

In terms of skin cancer preventive behaviors, only 4 participants (1.5%) reported that they always wear a wide-brimmed hat. About 25.4% of participants consistently use

Table 1. Frequency distribution of demographic characteristics of individuals participating in the study

Variable	Category	Frequency	Percentage (%)
Gender	Female	140	52.2
	male	128	47.8
Marital Status	Married	42	15.7
	Single	226	84.3
Education stage	Exterrnship	184	68.7
	Internship	84	31.3
Family Income Sufficiency	Completely Sufficient	98	36.6
	Relatively Sufficient	153	57.1
	Insufficient	17	60.3
Residence Type	Dormitory	91	34.1
	Personal Home without Family	63	23.6
	Personal Home with Family	113	42.3
Father's Education	Diploma and Below	62	23.2
	Bachelor's Degree	88	33.0
	Postgraduate and higher	117	43.8
Mother's Education	Diploma and Below	72	27.1
	Bachelor's Degree	118	44.4
	Postgraduate and higher	76	28.6
Father's Occupation	Self-Employed	74	27.8
	Government Employee	91	34.2
	Retired	101	38.00
Mother's Occupation	Self-Employed	15	50.6
	Government Employee	69	25.7
	Housewive	120	44.8
	Retired	64	23.9

sunscreen. Only 3 participants (1.1%) always wear gloves, while 14.9% reported that they always use sunglasses. Approximately 46.3% of participants indicated that they most often or always wear clothing that covers more of their body. Only 7.8% of participants are exposed to sunlight during the early morning or afternoon hours; however, just 5.6% mentioned that they make an effort to limit their sun exposure. Additionally, only 12.7% of medical students stated that they would immediately consult a doctor if they noticed any suspicious symptoms (Table 3).

The results of the univariate linear regression analysis indicated that several variables—specifically, gender, educational level, family income adequacy, and appearance attention score—had a significant relationship with participants' scores on skin cancer preventive behaviors. Notably, male students had a significantly lower score compared to female students ($P<0.001$). Additionally, students in internships scored higher than those in externships ($P<0.016$). Medical students who reported relatively sufficient family income had significantly higher scores than those with insufficient family income ($P<0.016$). Furthermore, for each one-unit increase in the appearance attention score, the score for skin cancer preventive behaviors increased by 0.15 units ($P=0.049$) (Table 4).

The results of the multivariable linear regression analysis indicated significant relationships between gender, educational level, and appearance attention score with skin cancer preventive behaviors among the participants. Male students scored significantly lower than female students ($P<0.001$), while internship students had higher scores compared to externship students ($P=0.001$). Furthermore, for every one-unit increase in

Table 2. Measures of central tendency and dispersion of appearance attention (in range of 0 to 100) and skin cancer preventive behaviors scores (in range of 0 to 100) in the study participants

Score Category	Maximum	Minimum	SD	Mean
Appearance Attention Score (12-60)	60	14	6.54	40.58
Appearance Attention Score (0-100)	100	4.17	13.63	59.55
Skin Cancer Prevention Behavior Score (0-32)	28	1	4.59	13.17
Skin Cancer Prevention Behavior Score (0-100)	87.50	3.13	14.36	41.16

Table 3. Frequency distribution of skin cancer preventive behaviors in the study participants

Behavior	Never	Sometimes	Half of the time	Most of the time	Always
			Frequency (Percentage)		
Using a wide-brimmed hat	153 (57.1)	90 (33.6)	12 (4.5)	9 (3.4)	4 (1.5)
Using sunscreen	56 (20.9)	44 (16.4)	36 (13.4)	64 (23.9)	68 (25.4)
Using gloves	185 (69.0)	55 (20.5)	16 (6.0)	9 (3.4)	3 (1.1)
Using sunglasses	62 (23.1)	59 (22.0)	56 (20.9)	51 (19.0)	40 (14.9)
Wearing clothes that cover most of the body	21 (7.8)	57 (21.3)	66 (24.6)	80 (29.9)	44 (16.4)
Working in the early morning and afternoon hours	31 (11.6)	83 (31.0)	60 (22.4)	73 (27.2)	21 (7.8)
See a doctor if you experience symptoms	36 (13.4)	61 (22.8)	60 (22.4)	77 (28.7)	34 (12.7)
Reduce sun exposure	21 (7.8)	84 (31.3)	64 (23.9)	84 (31.3)	15 (5.6)

the appearance attention score, there was an increase of 0.14 units in the score for skin cancer preventive behaviors ($P = 0.001$) (Table 5).

Discussion

In the present study, the average score of medical students in terms of skin cancer preventive behaviors and the mean score of students in terms of attention to appearance were low. Also, some medical students did not use all personal protective measures to prevent skin cancer. Female students, interns, and those who paid more attention to their appearance had higher scores in the area of skin cancer preventive behaviors.

The average score of students in terms of skin cancer preventive behaviors was 13.17, and on a scale of 0 to 100, 41.16 (below average). Also, the mean score of students in terms of attention to appearance was 40.58, and on a scale of 0 to 100, 59.55 (slightly above average). This finding was consistent with the studies of Nadrian et al. on students in Tehran (15) and Mazloomy Mahmoodabad et al on teachers in Yazd (16). The results of a systematic review in 2018 showed that medical students can not routinely protect themselves well from sunlight (17). In a study conducted on female high school students in Yazd, using a questionnaire similar to the present study to assess attention to appearance, the mean score for attention to appearance was reported to be 47.25 ± 6.8, which is slightly higher than in the present study. Given that adolescence is a critical period in terms of attention to appearance, this difference is justifiable (13). Medical students are expected

Table 4. Predicting variables affecting the score of skin cancer preventive behaviors in study participants (Univariable regression)

Variable	Category	β	Standardized β	95% Confidence Interval	*P*-value
Age (year)	-	0.13	0.05	(-0.22, 0.48)	0.474
Appearance Attention Score	-	0.15	0.22	(0.07, 0.23)	<0.001
Gender	Male	-3.48	-0.38	(-4.51, -2.45)	<0.001
	Female			Ref	
Marital Status	Married	-0.06	-0.01	(-1.58, 1.46)	0.936
	Single			Ref	
Education Level	Internship	1.44	0.15	(0.26, 2.63)	0.016
	Externship			Ref	
Family Income Adequacy	Completely Sufficient	1.75	0.18	(-0.62, 4.11)	0.148
	Relatively Sufficient	1.17	0.25	(-0.03, 4.58)	0.049
	Insufficient			Ref	
Residence	Dormitory	0.34	0.04	(-1.16, 1.83)	0.659
	Personal Home with Family	0.16	0.02	(-1.26, 1.59)	0.819
	Personal Home without Family			Ref	
Father's Education	Diploma and below	1.07	0.09	(-0.35, 2.49)	0.139
	Bachelor's Degree	-0.34	-0.04	(-1.61, 0.94)	0.602
	Postgraduate and higher			Ref	
Mother's Education	Diploma and below	0.85	0.08	(-0.65, 2.34)	0.264
	Bachelor's Degree	0.31	0.03	(-1.03, 1.64)	0.651
	Postgraduate and higher			Ref	
Father's Occupation	Employed	0.37	0.04	(-0.78,1.52)	0.524
	Unemployed			Ref	
Mother's Occupation	Employed	0.77	0.08	(-0.42, 1.96)	0.204
	Unemployed			Ref	

Table 5. Predicting variables affecting the score of skin cancer preventive behaviors in study participants (Multivariable regression)

Variable	Category	β	Standardized β	95% Confidence Interval	*P*-value
Appearance Attention Score	-	0.14	0.19	(0.06, 0.21)	0.001
Gender	Male	-3.32	-0.36	(-4.32, -2.32)	<0.001
	Female			Ref	
Educational Level	Internship	1.78	0.18	(0.71, 2.86)	0.001
	Externship			Ref	

to possess a good understanding of skin cancer preventive behaviors and, as a result, exhibit acceptable behavior in this regard. Emphasizing sun protection behaviors in classrooms and related clinical departments can motivate students to better protect themselves from sun exposure.

The results of skin cancer preventive behaviors in medical students showed that the frequency of skin cancer preventive behaviors in clinical medical students at Kerman University of Medical Sciences did not even reach 50% in any of the areas of using a wide-brimmed hat, sunscreen, gloves, sunglasses, wearing clothes, visiting a doctor, and avoiding exposure to sunlight. Given that medical students should focus on disease prevention in the future, it is crucial for individuals to recognize and observe these factors themselves. Therefore, it is suggested that educational interventions be designed and implemented with an emphasis on changing students' attitudes and behaviors so that we can witness better preventive behaviors in students to prevent skin cancer.

The study of factors predicting skin cancer preventive behaviors showed that female students and students in internships had higher scores than male students and students in externships. Also, with an increase in the appearance attention score, the skin cancer preventive behaviors score increased. Consistent with the results of the present study, a significant positive linear relationship was observed in a study of female high school students in Yazd (13). Additionally, a study of medical students at the University of Tehran revealed that age, gender, and educational level are associated with skin cancer preventive behaviors (18). A study of medical students' knowledge and performance in Spain also showed that students in higher educational levels had more knowledge about skin cancer preventive behaviors. The frequency of sunscreen use was significantly higher in female students than in male students (19). Studies have shown that most people, especially adolescents and young adults, and particularly women, are highly preoccupied with their body image and appearance, spending a significant amount of time and money on daily appearance changes (20). This can be problematic if it becomes a significant concern. However, this trait can be used to encourage people to engage in skin cancer preventive behaviors. Men are generally less concerned about their appearance than women, and sunscreen is often viewed as a cosmetic rather than a health product; for this reason, it is less commonly used by men. Teaching skin cancer preventive behaviors to male students and offering multiple training courses at various educational levels can help improve these behaviors.

This study has some limitations. The present study was conducted as a cross-sectional study, which limits its ability to understand causal relationships effectively. However, an attempt was made to eliminate the confounding effect to some extent by using regression statistical models. The use of the convenience sampling method increased the risk of selection bias in this study. The exclusion criterion for the study was refusal to participate, which could also increase the risk of selection bias. Considering the results of the present study, which indicate that skin cancer preventive behaviors were not well observed among clinical medical students, it is suggested that interventional studies be conducted to educate students with new methods in this field, and the results of these interventions be examined.

Conclusion

The results of the present study showed that a large number of clinical medical students at Kerman University of Medical Sciences do not always observe skin cancer preventive behaviors. Female students, internships, and those who paid more attention to their appearance had higher scores in the area of skin cancer preventive behaviors. This issue shows the need to emphasize training students at different educational levels to observe skin cancer preventive behaviors. Identifying target groups and conducting creative training that leads to changes in students' attitudes and performance is important.

Acknowledgements

This research was conducted by Fatemeh Ashrafzadeh to partially fulfill the requirements for a Doctor of Medicine degree at Kerman University of Medical Sciences. The authors thank all the students of Kerman University of Medical Sciences who participated in this study.

Authors' Contribution

Conceptualization and design: Mina Danaei, Mohsen Momeni.
Data curation: Fatemeh Ashrafzadeh.
Formal analysis: Mina Danaei.
Project administration: Mina Danaei, Mohsen Momeni, Fatemeh Ashrafzadeh.
Supervision: Mina Danaei, Mohsen Momeni.
Writing–original draft: Mina Danaei, Fatemeh Ashrafzadeh.
Writing–review & editing: Mina Danaei, Mohsen Momeni, Fatemeh Ashrafzadeh.

Competing Interests

The authors have no conflicts of interest associated with the material presented in this paper.

Ethical Approval

IR.KMU.AH.REC.1402.108

Funding

None

References

1. Mendez T, Saffari S, Cowan JM, Laver NM, Baleja JD, Alt-Holland A. Delineating cell behavior and metabolism of non-melanoma skin cancer in vitro. In Vitro Cell Dev Biol Anim. 2020;56(2):165-80. doi: 10.1007/s11626-019-00416-6.
2. Perez M, Abisaad JA, Rojas KD, Marchetti MA, Jaimes N. Skin cancer: primary, secondary, and tertiary prevention. Part I. J Am Acad Dermatol. 2022;87(2):255-68. doi: 10.1016/j.jaad.2021.12.066.
3. Hu W, Fang L, Ni R, Zhang H, Pan G. Changing trends in the disease burden of non-melanoma skin cancer globally from

1990 to 2019 and its predicted level in 25 years. BMC Cancer. 2022;22(1):836. doi: 10.1186/s12885-022-09940-3.
4. Hambisa MT, Dolja-Gore X, Byles JE. A longitudinal analysis of factors associated with age-related cataract among older Australian women: a cohort study of 7851 older Australian women 79-90 years. Ir J Med Sci. 2023;192(3):1525-36. doi: 10.1007/s11845-022-03130-7.
5. Kiani B, Tabari P, Mohammadi A, Mostafavi SM, Moghadami M, Amini M, et al. Spatial epidemiology of skin cancer in Iran: separating sun-exposed and non-sun-exposed parts of the body. Arch Public Health. 2022;80(1):35. doi: 10.1186/s13690-022-00798-2.
6. Poojan S, Pandey R. Cancer of the skin: types and etiology. In: Dwivedi A, Tripathi A, Ray RS, Singh AK, eds. Skin Cancer: Pathogenesis and Diagnosis. Singapore: Springer; 2021. p. 1-20. doi: 10.1007/978-981-16-0364-8_1.
7. Khanali J, Kolahi AA. National and subnational cancer incidence for 22 cancer groups, 2000 to 2016: a study based on cancer registration data of Iran. J Cancer Epidemiol. 2021;2021:6676666. doi: 10.1155/2021/6676666.
8. Abubakar M. Overview of skin cancer and risk factors. International Journal of General Practice Nursing. 2024;2(3):42-56.
9. Cooper BR, Krishnamurthy K. Overview of environmental skin cancer risks. In: StatPearls [Internet]. Treasure Island, FL: StatPearls Publishing; 2025.
10. Latifi Z, Soltani M, Mousavi S. Evaluation of the effectiveness of self-healing training on self-compassion, body image concern, and recovery process in patients with skin cancer. Complement Ther Clin Pract. 2020;40:101180. doi: 10.1016/j.ctcp.2020.101180.
11. Soltani M, Latifi Z, Moosavi S. The efect of self-healing education on self-compassion, body image concern and improvement of disease process in suffering from skin cancers. J Dermatol Cosmet. 2020;10(4):222-34. [Persian].
12. Nahata H, Singh SP. Deep learning solutions for skin cancer detection and diagnosis. In: Jain V, Chatterjee JM, eds. Machine Learning with Health Care Perspective: Machine Learning and Healthcare. Cham: Springer International Publishing; 2020. p. 159-82. doi: 10.1007/978-3-030-40850-3_8.
13. Mohammadi S, Baghiani Moghadam MH, Noorbala MT, Mazloomi SS, Fallahzadeh H, Daya A. Survey about the role of appearance concern with skin cancer prevention behavior based on protection motivation theory. J Dermatol Cosmet. 2010;1(2):70-7. [Persian].
14. Kaviani A, Roozbahani N, Khorsandi M. The assessment of the protection motivation theory construct of skin cancer preventive behaviors in rural women. Avicenna J Nurs Midwifery Care. 2016;24(4):229-37. doi: 10.21859/nmj-24043. [Persian].
15. Nadrian H, Tol A, Shojaeizadeh D, Khalili Z, Hossaini M, Beigom Aghamiri Z. Development an educational program in order to promote skin cancer preventive behaviors using PRECEDE model among students in Tehran city. J Health Syst Res. 2013;9(9):979-92. [Persian].
16. Mazloomy Mahmoodabad SS, Noorbala MT, Rahaee Z, Mohammadi M. Knowledge, attitude and performance study of secondary school teachers of Yazd city regarding skin cancer. J Eur Acad Dermatol Venereol. 2010;24(4):424-8. doi: 10.1111/j.1468-3083.2009.03431.x.
17. Nahar VK, Wilkerson AH, Ghafari G, Martin B, Black WH, Boyas JF, et al. Skin cancer knowledge, attitudes, beliefs, and prevention practices among medical students: A systematic search and literature review. Int J Womens Dermatol. 2018;4(3):139-49. doi: 10.1016/j.ijwd.2017.10.002.
18. Baghani M, Mahmoud Robati R, Mozafari N, Baghani M, Kassir M, Sheibani F, et al. Knowledge, attitude, and practice toward skin cancer among patients of dermatology clinics and medical students/general practitioners. J Skin Cancer. 2024;2024:9081896. doi: 10.1155/2024/9081896.
19. Revelles-Peñas L, Dompablo JM, Puebla-Tornero L, Revilla-Nebreda D, Rodríguez-Baeza D, Conde-Ferreirós A, et al. Awareness of skin cancer and practice of photoprotective behaviours among medical students. Res Sq [Preprint]. February 25, 2021. Available from: https://www.researchsquare.com/article/rs-227739/v1.
20. Hashemian M, Aflakseir A, Goudarzi M, Rahimi C. The relationship between attachment styles and attitudes toward body image in high school girl students: the mediating role of socio-cultural attitudes toward appearance and self-acceptance. Research in Cognitive and Behavioral Sciences. 2021;11(2):1-26. doi: 10.22108/cbs.2022.131524.1598. [Persian].