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# Assessment of Preventive Behaviors of Head Lice Infestation Based on Health Belief Model in Female College Students

**Vahid Kohpeima Jahromi [1], Razieh Zahedi [1], Zeinab Balaghi [1], Sara Mardaneh [1], Nader Sharifi [2*]**

1. Research Center for Social Determinants of Health, Jahrom University of Medical Sciences, Jahrom, Iran
2. Department of Public Health, Khomein University of Medical Sciences, Khomein, Iran

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**Corresponding Author:**
Nader Sharifi
nadersharifi81@yahoo.com

**ABSTRACT**

**Background:** People's health behaviors are important in determining the prevalence of the head lice infestation. This study aimed to determine the preventive behaviors of head lice infestation using the Health Belief Model (HBM) in female students of Jahrom University of Medical Sciences.

**Methods:** This cross-sectional study was conducted on 255 female students of Jahrom University of Medical Sciences, Fars Province, South of Iran in 2021. Sampling was randomly selected from female students studying in the fields of public health, operating room, anesthesia, nursing, laboratory sciences, and medicine. The data collection tool was a four-part standard "preventive behaviors against pediculosis infection" questionnaire whose validity and reliability have been confirmed. The questionnaire was completed by the participants and the data were entered into SPSS 21 for analysis. Data analysis was performed descriptively with the report of frequency, percentage, mean and standard deviation. The correlation was evaluated using Pearson correlation test. Significance level was considered less than 0.05.

**Results:** The mean age and number of roommates (SD) of the participants were 22.4 (1.7) and 3.35 (1.3), respectively. There was a positive and significant correlation between the perceived benefits construct and knowledge ($r = 0.147$, $p = 0.04$) and the perceived susceptibility construct ($r = 0.413$, $p < 0.001$). In addition, a positive and significant correlation was observed between the behavior with knowledge ($r = 0.144$, $p = 0.04$) and self-efficacy construct ($r = 0.167$, $p = 0.02$). There was a significant inverse correlation between perceived barriers construct with knowledge ($r = -0.265$, $p < 0.001$) and behavior ($r = -0.213$, $p = 0.002$), as well as between self-efficacy construct and knowledge ($r = -0.219$, $p = 0.001$).

**Conclusion:** To improve preventive behaviors of lice infestation in students, in addition to improving people's knowledge, efforts should be made to identify and remove barriers to healthy behavior as well as improve people's perception of these barriers.

**Keywords:** Behavior, Lice Infestation, Health Belief Model, Students

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## Introduction

Head lice infestation is one of the most common public health problems (1, 2). Ways of transmitting the infection (direct head-to-head contact and the use of other people's personal belongings such as hats, sweaters, scarves, brushes, and combs) provide the conditions for its spread in crowded places such as schools and dormitories (3, 4). Although head lice infestation does not directly transmit the disease, it is a social problem. Head lice, in addition to secondary bacterial infections, cause social stigma, embarrassment, low self-esteem, lost productivity, and frustration among the involved people (5). Head lice infestation can affect everyone regardless of age and race, although it is more common in children and adolescents, women and people living in crowded environments (6). In recent decades, the prevalence of this infection has been reported between 1% and 20% in Europe (7). In low and middle-income countries, there is no accurate information about this parasitic skin disease (8). However, the rate of infestation is reported at 35% in Brazil, 29.7% in Argentina and 1.2% in Turkey (9). In Iran, the evidence shows a prevalence of 8.8% (10).

Beliefs are very effective in adopting people's behaviors and healthy behaviors of people, especially in adolescence and youth have a very important role in preventing diseases (11, 12). Head lice infestation can also be prevented, and people's health behaviors are important in determining the prevalence of the disease (13). One of the most important models of prevention and behavior change is the Health Belief Model (HBM). The HBM includes the constructs of perceived susceptibility, perceived severity, perceived barriers, perceived benefits, cues to action, and perceived self-efficacy (14, 16). Perceived susceptibility refers to a person's perception of the possibility of danger and the perceived severity refers to a person's perception of the seriousness of the risk. Perceived benefits and barriers show a person's perception of the effectiveness of measures to reduce the risk of the disease and its barriers. Cues to action lead people to adopt healthy behaviors (17, 19). Perceived self-efficacy is the concept of believing in the ability to do healthy behavior and overcoming obstacles (20, 21). This model has been used in many studies of disease-preventing behaviors in females, including perceived beliefs of the cancer warning signs (22), breast self-examination behavior (16), predictors of mammography (23), participate in the Pap screening test program (24), and osteoporosis preventive behaviors (25). Various studies have been conducted on head lice among school-age students around the world (26). The study on female elementary school students with the use of HBM showed a significant correlation between self-efficacy and behaviors to prevent head lice infestation (27). Also, the study in elementary schools and kindergartens in Yazd city showed that girls were more prone to head lice than boys and the high level of health knowledge among families is an effective factor in preventing it (28). But female college students, who often live in dormitories, have not been surveyed. Previous studies have shown a higher prevalence of head lice infestation in females compared to males (29,30). On the other hand, in recent years, several cases of the disease have been reported among female students in dormitories of Jahrom University of Medical Sciences. Therefore, this study aimed to determine the preventive behaviors of head lice infestation using the HBM in female students of Jahrom University of Medical Sciences.

## Methods

### *Study design*

This cross-sectional study was performed on female students of Jahrom University of Medical Sciences, Fars Province, South of Iran, in 2021. The sample size was determined according to the study by Daneshvar S et al., in which the mean and standard deviation of knowledge score were 5.21 and 1.63, respectively (27), confidence level 95%, the power 80%, and the maximum acceptable difference (effect size) was 2 points.

Formula:

$$n = \frac{Z^2_{1-\alpha/2}\ \sigma^2}{d^2}$$



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The minimum required sample size based on the correlation test was calculated 196 people, which according to the probability of similarity between the sample people based on the field and degree, design effect of 1.3 was considered. The final sample size required for the study was determined 255 people. Sampling was randomly selected from 680 female students studying in the fields of public health, operating room, anesthesia, nursing, laboratory sciences, and medicine at Jahrom University of Medical Sciences. Students who did not want to participate in the study were replaced by other people.

***Instrument and data collection***

The data collection tool was "preventive behaviors against pediculosis infection" questionnaire. A four-part questionnaire was designed by Moshki M et al. (31) and its validity and reliability have been confirmed. To determine the face and content validity, the questionnaire was reviewed by 10 professors in related fields and their opinions were applied in the questionnaire. To confirm the reliability, the questionnaire was completed by 20 students. Cronbach's alpha for the whole questionnaire was calculated 0.77, and for knowledge 0.86, perceived susceptibility 0.82, perceived severity 0.78, perceived barriers 0.85, perceived benefits 0.74, self-efficacy 0.76, and behavior 0.78. The first part of the questionnaire included 10 background questions such as age, field of study, parents' occupation. The second part included nine questions about students' knowledge such as ways of transmission and ways to prevent lice infestation. For the correct answer (two points), wrong answer (zero), and do not know (one point) were considered. The third part included HBM constructs (perceived susceptibility, perceived severity, perceived barriers, perceived benefits, and self-efficacy) including five questions for each construct. The scoring of this section was based on a 5-point Likert scale (strongly disagree, disagree, have no opinion, agree, and strongly agree). Each answer was assigned a score between zero and four. Cues to action construct questions were measured in frequency and percentage. The fourth section, related to the preventive behavior of lice infestation, consisted of five questions, the answers of which were designed as always, sometimes, and never, with a score between zero and two (31). In order to assess the reliability of the questionnaire in the present study, 30 female students of Jahrom University of Medical Sciences completed the questionnaire by test-retest method with a two-week interval. Sample participants at this stage of the study did not participate in the next stages. Intra-class correlation coefficient for the knowledge was calculated 7.7, perceived susceptibility 0.84, perceived severity 0.88, perceived barriers 0.79, perceived benefits 0.70, self-efficacy 0.76, behavior 0.79, and whole questionnaire 0.81.

The inclusion criteria included all the students who were studying at the university and the exclusion criteria included the students who took leave of absence or transferred. After explaining the objectives of the study and ensuring the confidentiality of the research information to the participants, they completed a written consent form, then the questionnaire was completed by the participants.

***Statistical analysis***

The data were entered into SPSS software version 21 for analysis. Data analysis was performed descriptively with the report of frequency and percentage for qualitative variables and mean and standard deviation for quantitative variables. The correlation between knowledge and behavior with the HBM constructs was evaluated using Pearson correlation test. Significance level was considered less than 0.05.

## Results

The results showed that 63 (30%) students were in the field of public health and the rest in other fields including medicine, nursing, anesthesia, laboratory sciences, and operating room. The mean age and number of roommates (SD) of the participants were 22.4 (1.7), 3.35 (1.3), respectively. Moreover, 29% (61) of fathers were employees and 79.5% (167) of mothers housewives. Among the students participating in



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the study, 85.2% lived in dormitories and 9.5% (20 people) reported a history of head lice in the last three months. One-third (67 people) of students had a history of head lice in a family member in the previous three months. Also, 56.2% (118 people) had been trained in the prevention and treatment of lice in the last three months.

The results showed that health education had an important impact on preventive behaviors of 111 participants (52.4%), also health education was an important source for obtaining information about the prevention of head lice infestation in 111 subjects (52.4%) (Table 1).

**Table 1.** Demographic variables, history of infestation, education, and cues to action about head lice in students

| Variable | | | N (%) |
|---|---|---|---|
| Field | | Public health | 63 (30) |
| | | Physician | 31 (14.8) |
| | | Nurse | 39 (18.6) |
| | | Others | 77 (36.7) |
| Age (Mean (SD)) | | 22.4 (1.7) | |
| Place of residence | | Dormitory | 179 (85.2) |
| | | With family | 26 (12.4) |
| | | With friends | 5 (2.4) |
| **Number of roommate** (Mean (SD)) | | 3.35 (1.3) | |
| **Father's job** | | Employee | 61 (29) |
| | | Worker | 17 (8.1) |
| | | Tradesman | 16 (7.6) |
| | | Teacher | 20 (9.5) |
| | | Farmer | 11 (5.2) |
| | | Others | 84 (40) |
| **Mother's job** | | Housewife | 167 (79.5) |
| | | Employee | 41 (19.5) |
| History of head lice infestation in the last three months | | Yes | 20 (9.6) |
| | | No | 189 (90.4) |
| Family history of head lice infestation in the last three months | | Yes | 67 (31.9) |
| | | No | 143 (68.1) |
| History of receiving training on head lice in the last three months | | Yes | 118 (56.2) |
| | | No | 92 (43.8) |
| Number of take a bath (Mean (SD)) | | 3.1 (1.1) | |
| **Cues to Action** | Which of the following can best help prevent head lice infestation? | Master | 21 (9.9) |
| | | Parents | 28 (13.2) |
| | | Physician | 35 (16.5) |
| | | Friends | 24 (11.3) |
| | | TV | 17 (8) |
| | | Social networks | 36 (17) |
| | | Health education | 111 (52.4) |
| | | Myself | 61 (28.8) |
| | | Fear of lice infestation | 28 (13.2) |
| | What sources of opinions do you accept in preventing lice infestation? | Master | 36 (17) |
| | | Parents | 31 (14.6) |
| | | Physician | 92 (43.4) |
| | | Friends | 10 (4.7) |
| | | TV | 13 (6.1) |
| | | Social networks | 18 (8.5) |
| | | Health education | 111 (52.4) |
| | | Myself | 38 (17.9) |



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Based on the results of the study, the mean scores of students' knowledge and preventive behaviors about head lice infestation were 72.1 ± 17.2 and 69.9 ± 9.7, respectively. Also, among the HBM constructs, perceived benefits had the highest mean score (81.9 ± 12.4) and perceived barriers had the lowest mean score (44.9 ± 14.9) (Table 2).

**Table 2.** Knowledge, preventive behaviors, and HBM constructs scores about head lice infestation in students

| Variable | M ± SD | Min- Max |
|---|---|---|
| Knowledge | 72.1 ± 17.2 | 0- 100 |
| Behavior | 69.9 ± 9.7 | 40- 93.3 |
| Perceived susceptibility | 77.3 ± 13.9 | 32- 100 |
| Perceived severity | 81.8 ± 13.2 | 28- 100 |
| Perceived barriers | 44.9 ± 14.9 | 20- 100 |
| Perceived benefits | 81.9 ± 12.4 | 20- 100 |
| Self-efficacy | 60.1 ± 11.6 | 20- 100 |

According to the findings, there was a positive and significant correlation between perceived benefits and knowledge ($r = 0.147$, $p = 0.04$) and perceived susceptibility ($r = 0.413$, $p < 0.001$). A positive and significant correlation was observed between perceived severity with perceived susceptibility ($r = 0.45$, $p < 0.001$) and perceived benefits ($r = 0.598$, $p < 0.001$), as well as between self-efficacy with perceived susceptibility ($r = 0.345$, $p < 0.001$), perceived benefits ($r = 0.226$, $p = 0.001$), perceived severity ($r = 0.294$, $p < 0.001$), and perceived barriers ($r = 0.289$, $p = 0.001$). In addition, a positive and significant correlation was observed between behavior with knowledge ($r = 0.144$, $p = 0.04$) and self-efficacy ($r = 0.167$, $p = 0.02$). There was a significant inverse correlation between perceived barriers with knowledge ($r = -0.265$, $p < 0.001$) and behavior ($r = -0.213$, $p = 0.002$), as well as between self-efficacy and knowledge ($r = -0.219$, $p = 0.001$) (Table 3).

**Table 3.** Correlation between knowledge, preventive behaviors, and HBM constructs scores about head lice infestation in students

| variable | Knowledge | Behavior | Perceived susceptibility | Perceived severity | Perceived barriers | Perceived benefits | Self-efficacy |
|---|---|---|---|---|---|---|---|
| Knowledge | 1.000 | | | | | | |
| Behavior | .144* | 1.000 | | | | | |
| Perceived susceptibility | .006 | 0.114 | 1.000 | | | | |
| Perceived severity | 0.058 | 0.127 | .450** | 1.000 | | | |
| Perceived barriers | -.265** | -.213** | 0.069 | -0.119 | 1.000 | | |
| Perceived benefits | .147* | 0.125 | .413** | .598** | -0.125 | 1.000 | |
| Self-efficacy | -.219** | .167* | .345** | .294** | .289** | .226** | 1.000 |

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

## Discussion

This study was conducted to investigate the preventive behaviors of head lice infestation using the HBM in female college students. The participants were at a relatively good level in terms of knowledge. The results of Daneshvar (32) and Gholamnia (33) studies showed the knowledge of elementary school girl students at a moderate level. Magalhães's study on elementary school children in Angola showed low levels of knowledge about head lice (34). Given that the participants in the present study had a university education, while other studies were conducted on elementary school students or people with low literacy, this difference in the level of knowledge seems reasonable.

The results showed a positive correlation between knowledge with perceived benefits and behavior, while it had an inverse correlation with



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perceived barriers and self-efficacy. Several studies have shown the effect of enhancing the knowledge on improving preventive behaviors of head lice infestation (31, 34, 35). Moshki's study did not show a positive correlation between knowledge and preventive behaviors of lice in students (31). In contrast to the present study, Daneshvar's study showed a positive correlation between knowledge and self-efficacy (27). It should be noted that because the participants in these studies were from different groups, the results are contradictory. The level of knowledge of individuals seems to play an important role in adopting behaviors that prevent head lice infestation. In addition, a higher level of knowledge reduces barriers that a person feels towards adopting a healthy behavior.

The score of preventive behaviors of head lice infestation in this study was above average. However, Daneshvar's study on elementary school students evaluated people's behavior very well (27). It should be noted that the level of perception of participants of questions related to behavior in these two studies is different, so it can be expected that college students gave more accurate answers to the questions. In the present study, a positive correlation was observed between the behavior with self-efficacy, while there was an inverse correlation between the behavior with perceived barriers. Consistent with these results, Moshki's study also showed a significant correlation between the preventive behavior of head lice infestation with perceived barriers and self-efficacy (31). These results underscore the importance of trying to reduce perceived barriers to adopt health behaviors, including lice prevention behaviors. In addition, it emphasizes the importance of self-efficacy as individuals' perception of their ability to adopt a particular behavior in relation to preventive behaviors of head lice.

The highest and lowest scores among the HBM constructs were related to perceived benefits and perceived barriers, respectively. Interestingly, the perceived barriers construct showed an inverse correlation with knowledge and behavior, and the perceived benefits construct showed a positive correlation with behavior. A positive correlation between perceived benefits and behavior was also observed in studies by MorowatiSharifabad (37) and Namdar (38). On the other hand, given the positive correlation observed between perceived barriers and preventive behavior of head lice in elementary school students, Moshki points to the need to place more emphasis on perceived benefits and reduce perceived barriers (31). It seems that the more awareness of the benefits of health behavior, the more likely it is to adopt healthy behaviors about head lice. Also, fewer barriers perceived by people increase the likelihood of adopting behaviors that prevent head lice infestation, which in the present study has led to a relatively high score of behavior.

The two perceived susceptibility and perceived severity constructs showed a positive correlation with each other as well as with the perceived benefits and self-efficacy constructs. Consistent with the results of the present study, there was a positive correlation between perceived susceptibility and perceived severity in Panahi (39) and Daneshvar (27) studies. Also, in Sharafkhani (40), Namdar (38), and Daneshvar (27) studies, a positive correlation was observed between perceived severity with perceived benefits and self-efficacy.

The limitation of the study was selecting the study population among female students. There was also the problem of access to students due to the COVID-19 pandemic. On the other hand, due to the fact that the self-report questionnaire was used in this study, it was possible that female students did not answer honestly about head lice infestation, which the researchers tried to remove this limitation by ensuring the confidentiality of information.

## Conclusion

To improve preventive behavior of head licein students, in addition to improving people's knowledge, efforts should be made to identify and remove barriers to healthy behavior as well as improve people's perception of these barriers. People's self-efficacy in adopting preventive



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behavior of head lice should also be considered. It is suggested that future studies be conducted considering social factors affecting the adoption of preventive behavior of head lice.

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## Conflict of interest

The author(s) declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Author contribution

N. SH, V. KJ, Data curation; B. Z, M. S, N. SH, Formal analysis; R. Z, V. KJ, Methodology; N. SH, V. KJ, Project administration; B. Z, M. S, Writing–original draft; N. SH, V. KJ, R. Z, Writing–review and editing, all authors.

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## References

1. Bartosik K, Tytuła A, Zając Z, et al. Scabies and Pediculosis in Penitentiary Institutions in Poland-A Study of Ectoparasitoses in Confinement Conditions. Int J Environ Res Public Health. 2020; 17(17).
2. Saghafipour A, Mohammadbeigi A, ÓVesalimonfared E, et al. Effect of educational intervention based on the health belief model in reducing head lice infestation in treatment-resistant individuals. J Educ Community Heal. 2020; 7(3): 161–8. [Persian]
3. Alberfkani MI, Mero WMS. The Incidence of Scabies and Head Lice and Their Associated Risk Factors among Displaced People in Cham Mishko Camp, Zakho City, Duhok Province, Iraq. Polish J Microbiol. 2020; 69(4): 463–9.
4. Toloza AC, Laguna MF, Ortega-Insaurralde I, et al. Insights About Head Lice Transmission From Field Data and Mathematical Modeling. J Med Entomol. 2018; 55(4): 929–37.
5. Cummings C, Finlay JC, MacDonald NE. Head lice infestations: A clinical update. Paediatr Child Health. 2018; 23(1): e18–24.
6. Stevenson B, Tesfaye W, Christenson J, et al. Comparative efficacy and safety of interventions for treating head lice: a protocol for systematic review and network meta-analysis. BMJ paediatrics open. 2021; 5: e001129.
7. Feldmeier H. Pediculosis capitis: new insights into epidemiology, diagnosis and treatment. Eur J Clin Microbiol Infect Dis. 2012; 31(9): 2105–10.
8. Coscione S, Esau T, Kekeubata E, et al. Impact of ivermectin administered for scabies treatment on the prevalence of head lice in Atoifi, Solomon Islands. PLoS Negl Trop Dis. 2018; 12(9): e0006825.
9. Nezhadali A, Babazadeh T, Nadrian H, et al. Cognitive Factors Associated to Pediculosis Preventive Behaviors Among Mothers of School-Age Children in Chaldoran County, Iran. J Multidiscip Healthc. 2020; 13: 19–26. [Persian]
10. Moosazadeh M, Afshari M, Keianian H, et al. Prevalence of Head Lice Infestation and Its Associated Factors among Primary School Students in Iran: A Systematic Review and Meta-analysis. Osong public Heal Res Perspect. 2015; 6(6): 346–56. [Persian]
11. Sharifi F, Sharifi N. The effect of educational intervention on lifestyle modification associated with osteoporosis in female students. Iran J Obstet Gynecol Infertil. 2017; 20(7): 36–43. [Persian]
12. Afsahi F, Kachooei M. Relationship between hypertension with irrational health beliefs and health locus of control. J Educ Health Promot. 2020; 9(1): 110.
13. Bartosik K, Buczek A, Zając Z, et al. Head pediculosis in schoolchildren in the eastern region of the European



[ DOI: 10.18502/jchr.v12i23.13925 ]

Union. Ann Agric Environ Med. 2015; 22(4): 599–603.
14. Wu S, Feng X, Sun X. Development and evaluation of the health belief model scale for exercise. Int J Nurs Sci. 2020; 7: S23–30.
15. Sadeghi R, Tol A, Moradi A, et al. The impacts of a health belief model-based educational program on adopting self-care behaviors in pemphigus vulgaris patients. J Educ Health Promot. 2015; 4: 105. [Persian]
16. Didarloo A, Nabilou B, Khalkhali HR. Psychosocial predictors of breast self-examination behavior among female students: an application of the health belief model using logistic regression. BMC Public Health. 2017; 17(1): 861. [Persian]
17. Ghaffari M, Esfahani SN, Rakhshanderou S, et al. Evaluation of Health Belief Model-Based Intervention on Breast Cancer Screening Behaviors among Health Volunteers. J Cancer Educ. 2019; 34(5): 904–12. [Persian]
18. Villar OAE-D, Montañez-Alvarado P, Gutiérrez-Vega M, et al. Factor structure and internal reliability of an exercise health belief model scale in a Mexican population. BMC Public Health. 2017; 17(1): 229.
19. Shirazi Zadeh Mehraban S, Namdar A, Naghizadeh MM. Assessment of Preventive Behavior for Cervical Cancer with the Health Belief Model. Asian Pac J Cancer Prev. 2018; 19(8): 2155–63. [Persian]
20. Andrade L, O'Malley K, Hynds P, et al. Assessment of two behavioural models (HBM and RANAS) for predicting health behaviours in response to environmental threats: Surface water flooding as a source of groundwater contamination and subsequent waterborne infection in the Republic of Ireland. Sci Total Environ. 2019; 685: 1019–29.
21. Mohammadi S, Ghajari H, Valizade R, et al. Predictors of Smoking among the Secondary High School Boy Students Based on the Health Belief Model. Int J Prev Med. 2017; 8: 24. [Persian]
22. Sharifikia I, Rohani C, Estebsari F, et al. Health Belief Model-based Intervention on Women's Knowledge and Perceived Beliefs about Warning Signs of Cancer. Asia-Pacific J Oncol Nurs. 2019; 6(4): 431–9. [Persian]
23. Khazir Z, Morrowati Sharifabad MA, Vaezi AA, et al. Predictors of mammography based on Health Belief Model in Khorramabad women. J Educ Health Promot. 2019 ; 8: 180. [Persian]
24. Karimy M, Azarpira H, Araban M. Using Health Belief Model Constructs to Examine Differences in Adherence to Pap Test Recommendations among Iranian Women. Asian Pac J Cancer Prev. 2017; 18(5): 1389–94.
25. Jeihooni AK, Askari A, Kashfi SM, et al. Application of health belief model in prevention of osteoporosis among primary school girl students. Int J Pediatr. 2017; 5(11): 6017–29. [Persian]
26. Hatam-Nahavandi K, Ahmadpour E, Pashazadeh F, et al. Pediculosis capitis among school-age students worldwide as an emerging public health concern: a systematic review and meta-analysis of past five decades. Parasitol Res. 2020; 119(10): 3125–43. [Persian]
27. Daneshvar S, Aivazi AA, Naghizadeh MM, et al. Factors Associated with Preventive Behaviors of Pediculosis Infection among Elementary School Girl Students in Eyvan: An Application of the Health Belief Model. J Educ Community Heal. 2019; 6(1): 3–9. [Persian]
28. Ebrahimzadeh Ardakani M, Fayazi Bargin MH. Prevalence of pediculosis capitis in Yazd primary schools in 2013. J Heal. 2018;8(5):587–95.
29. Firoozfar F, Moosa-Kazemi SH, Bahrami A, et al. Head lice infestation (Pediculus humanus capitis) prevalence and its associated factors, among the Kormanj tribes in North Khorasan province. Shiraz E Med J. 2019; 20(4). [Persian]
30. Tawfeeq AE. Comparison of prevalence of head lice Pediculus humanus capitis among male and female students of some primary schools in Tikrit City. Tikrit J Pure Sci. 2020; 25(3): 10–3.
31. Moshki M, Mojadam M, Zamani Alavijeh F. Preventive behaviors of female elementary students in regard to Pediculosis infestation based on Health Belief Model (HBM). Heal Dev J. 2014; 3(3): 269–81.
32. Daneshvar S, Aivazi AA, Naghizadeh MM, et al. Efficacy of Educational Intervention on Preventive Behavior against Head Lice Infestation in Girl School Students. J Educ Community Heal. 2021; 8(3): 215-21. [Persian]
33. Shirvani ZG, Shokravi FA, Ardestani MS. Evaluation of a health education program for head lice infestation in female primary school students in Chabahar City, Iran. Arch Iran Med. 2013; 16(1): 42. [Persian]
34. Magalhães P, Figueiredo E V, Capingana DP. Head lice among primary school children in Viana, Angola: Prevalence and relevant teachers' knowledge. Hum Parasit Dis. 2011; 3.
35. Moshki M, Zamani-Alavijeh F, Mojadam M. Efficacy of peer education for adopting preventive behaviors against head lice infestation in female elementary school students: a randomised controlled trial. PLoS One.



[ DOI: 10.18502/jchr.v12i23.13925 ]

2017;12(1):e0169361.
36. Sharifat R, Mohamadian H, Cheragi M, et al. Impact of theory-based educational intervention on explaining preventive pediculosis infestation behavior among primary school students. Electron physician. 2017; 9(4): 4101. [Persian]
37. MorowatiSharifabad MA, EbrahimZadeh M, Fazeli F, et al. Study of Pediculus capitis prevalence in primary school children and its preventive behaviors determinants based on Health Belief Model in Their Mothers in Hashtgerd, 2012. Tolooebehdasht. 2016; 14(6): 198–207. [Persian]
38. Namdar A, Bigizadeh S, Naghizadeh MM. Measuring Health Belief Model components in adopting preventive behaviors of cervical cancer. J Fasa Univ Med Sci. 2012; 2(1): 34–44. [Persian]
39. Panahi R, Ramezankhani A, Tavousi M, et al. Predictors of Adoption of Smoking preventive behaviors among university students: Application of health belief model. J Educ Community Heal. 2017; 4(1): 35–42. [Persian]
40. Sharafkhani N. Survey of prostate cancer-preventive behaviors based on the health belief model constructs among male teachers of Urmia city, in 2015. Nurs Midwifery J. 2016; 14(3): 271–81. [Persian]



[ DOI: 10.18502/jchr.v12i23.13925 ]