

## Role of Students' Media Literacy on Their Health: A Narrative Review

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### ABSTRACT

**Introduction:** Media literacy can be considered as strengthening media experiences. The media has a great impact on the health of people, including children. However, so far this issue has been understudied and scientific evidence is needed to make a decision. This study aimed to investigate roles of students' media literacy on their health.

**Methods:** This study is a literature review with systematic search. Different electronic databases were used for a comprehensive literature search, including MEDLINE, Web of Science, CINAHL, PsycINFO, Scopus, Google Scholar, Cochrane Register of Controlled Trials and EMBASE to identify the records that match the mentioned inclusion criteria published from January 1st of 1990 to December 2020. The search resulted in 32 articles, of which 22 articles were removed (3 were not available, 12 were irrelevant, 7 were duplicates). Ten articles met the selection criteria and were included in the review. Exclusion criteria were those not published in peer reviewed journals, articles that address only one of the topics of media literacy or student health, and the age group of the subjects was over 18 years old or the students were not studied in primary and high school.

**Results:** This study showed that media literacy is effective on students' behaviors. These behaviors promote health or high-risk behaviors. The main studies have been conducted on nutrition, obesity, health tips, smoking, drug addiction and alcohol consumption.

**Conclusion:** It is concluded that the media has a great role in the health of students and this issue has been proven in previous studies. These effects both improve students' health and increase risky behaviors. Therefore, there is enough evidence for managers to decide to launch.

**Keywords:** Media literacy, Student, Children, Health

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## Introduction

From the past until now, the media has come forward with the advancement of technology(1). Today we are in the age of information explosion and in this age in the global village all the people of the planet can communicate with each other through the media(2). Every society has a degree of media literacy about health and each member of society has their own level of media literacy(3). The media are the biggest educators, especially in the field of health in today's societies(4).

Media literacy can be considered as strengthening media experiences(5). Media literacy in a very general definition is a kind of skill-based perception based on which the types of media and their types of products can be identified and distinguished from each other(6). This type of literacy; by empowering people to understand how media works and how to make sense of them, the nature and purpose of producing media messages and the effects and techniques of various media, it takes them out of mere consumption and makes him resistant to the effects of media today(7).

Critical health literacy can be a concept in areas related to other important structures(8). Nevertheless, the key focus is on the interaction between individuals and health information and how to use information at the individual and collective levels to achieve health-promoting outcomes(9). In general, whether with a critical approach or even without it, neither health literacy concepts nor research nor media literacy seem sufficient to explain how people view health-related content(10). Interpret in the mass media are not comprehensive. In the meantime, having critical thinking skills in interpreting and analyzing health-related content in the media is vital(11). The concept of health media literacy with a critical approach can be the result of combining concepts such as critical media literacy and critical health literacy(12). Conceptual development will lead to the development and application and especially critical media literacy of health and its processes in different groups (adolescents, students, adults, women, etc.)(13). Media health literacy based on a

combination of health literacy and media literacy are two basic concepts for understanding the scope and importance of media health literacy(14, 15). The concept of media health literacy is unique because it not only considers the information provided to individuals through the media to provide health guidance, but also includes the content of implicit and explicit mass media, usually by the system(15). Health products are produced, and can be health promoters, as well. But the priority is that media health literacy must take a critical approach(16). Research in this field has addressed issues such as the need for health media literacy training, health media literacy and social justice, and ways to promote health literacy in society(17).

The need for media literacy for students who deal with all kinds of media most of the day, but this does not mean that they understand well what they see and hear. It can be said that most students do not know at all what the function of the media is and how it will affect them(18). That is why "media literacy" is so important. Of course, media is not limited to mobile phones and the Internet; But newspapers, magazines, television, and computer games all fall into the category of media, and students must face them with full awareness; In fact, media literacy is the ability to encode and decipher the symbols in the media and analyze them(19). Since adolescents are among the groups in society that are most affected by the media in the field of health, given the importance of the issue and the extraordinary role of the media in adolescent health and in order to respond and identify the dimensions and components of media health literacy. The purpose of this study was to review the effect of media literacy on students' health.

## Methods

This study was a narrative review. Different electronic databases were used for a comprehensive literature search, including MEDLINE, Web of Science, Scopus, Google Scholar, CINAHL, PsycINFO, Cochrane Register

of Controlled Trials and EMBASE to identify the records that match the mentioned inclusion criteria.

Articles must meet the following conditions to be included:

- Articles should be published between January 1<sup>st</sup> 1990 and end of December 2020.
- Articles should be peer reviewed and available through public search.
- Articles should be about health of students and media literacy.

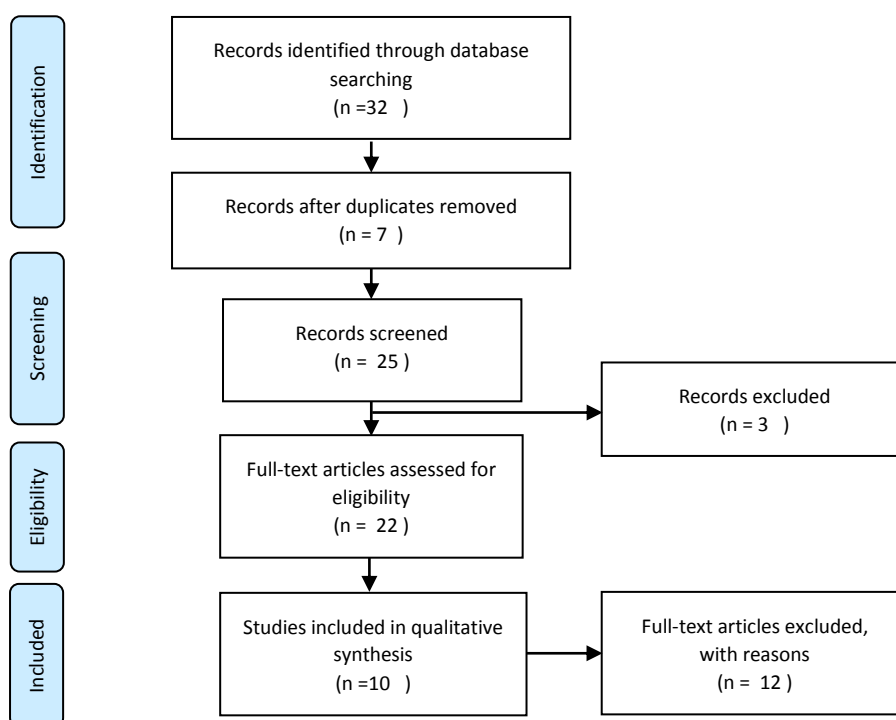
Exclusion criteria are including:

- Manuscripts those not published in peer reviewed journals (such as grey literature)
- Articles that address only one of the topics of media literacy or student health.
- The age group of the subjects was over 18 years old or the students were not studied in primary and high school.
- The language of publication of the article was other than Persian or English.
- The full text of the article is not available.

All articles are covered with different methods such as quantitative, qualitative, and mix methods. The main search terms were ‘media literacy, ‘students, and ‘health. Four types of data were extracted from the qualified studies including authors, year, findings, and roles of media literacy on health determinants. Studies were included in the literature reviews those were published in peer review journals in Farsi or English languages. In the selection process were participated three authors and an Endnote software was used to data extraction. The analysis was conducted by narrative format. The search resulted in 32 articles, of which 22 articles were removed (3 were not available, 12 were irrelevant, 7 were duplicates). Ten articles met the selection criteria and were included in the review. The flow diagram of selection is shown in Figure 1.

## Results

In the review, ten articles were found that their characteristics are shown in Table 1.



**Figure 1.** Flow diagram for included articles in review

Table 1. Characteristics of reviewed articles

Authors	Year	Finding	Role of media literacy on health determinants
Kes et al. 2020 (20)	2020	It was found in this study that the media literacy of obese students was at a medium level, and that media literacy affected their attitudes and beliefs regarding obesity.	Obesity
Yang z.C., et al. 2020(21)	2020	Moreover, students with lower MM media literacy were more likely to be dietary supplement users, to take dietary supplement more frequently, and to have higher intentions for future frequent dietary supplement use. Finally, those who placed extreme importance on health were more likely to take dietary supplement frequently and have higher intentions for future frequent dietary supplement use.	Using dietary supplement
Nordheim et al. (22)	2019	When interpreting the skill to request relevant information as expressing students' proficiency in critical appraisal of health claims, It was found that only students with very high proficiency in science possessed that skill.	Appraising health claims
Nurjanah et al. (23)	2017	They were very easy to access online health information but had difficulties to evaluate the right and trusted health information.	Appraising health claims
Bier et al. (24)	2016	Smoking media literacy levels for middle school students were similar to those of high school students in earlier studies.	Smoking
Gordon et al. (25)	2016	The program significantly increased media literacy skills and understanding of persuasive intent. An Australian alcohol media literacy program for upper-primary school children appears feasible, and has potential to lead to measurable outcomes.	Alcohol consumption
Draper et al. (26)	2015	Participants significantly increased their: preferences for non-alcohol-related advertisements, ability to identify advertising techniques, media deconstruction skills, negative opinions about drinking and smoking behaviors, and significantly decreased their positive perceptions of cigarette and alcohol content in advertising.	Alcohol and drug addiction
Primack et al. (27)	2014	A school-based media literacy curriculum is more effective than a standard educational program in teaching media literacy and improving perceptions of the true prevalence of smoking among adolescents.	Smoking
Page et al. (28)	2010	The association of SML with reduced smoking suggests the need for further research involving SML, including the testing of media literacy training interventions, in Vietnamese adolescents and also other populations of adolescents.	Smoking
Primack et al. (29)	2009	High smoking media literacy is independently associated with lower odds of smoking.	Alcohol and drug addiction

**Smoking:** It was found in the literature review that media literacy is effective on students' smoking. If effective media programs are designed to address the dangers of smoking, it will reduce smoking among students. It was also found that negative media patterns promoting smoking would increase students' smoking.

**Alcoholism:** The reviewed studies showed that the design of interventions to reduce alcohol and drug use is also effective in changing students' behavior. They recommended that programs should be flexible, informative, engaging, age-relevant and engaging.

**Obesity:** One article found that the media literacy of obese children was moderate. This article suggests that the visual media should broadcast short educational videos at regular intervals on obesity prevention. Another article found that students with less media literacy used more dietary supplements at shorter intervals. It was also found that people with less media literacy are more likely to consume more of these drugs in Taiwan in the future.

**Appraising health claims:** Another article found that students with more media literacy were more likely to research health-related topics and use credible sources. Therefore, it is suggested that different resources be used for research for the use of students. On the other hand, students with less media literacy had difficulty in distinguishing right from wrong, and it was suggested that students' media literacy be increased through social media, and that capacity building be done in this regard.

## Discussion

This study showed that as media literacy increases, students' positive behaviors that lead to better health increase. On the other hand, low media literacy has shown to be riskier behaviors by students. In other words, students who engage in high-risk behaviors, such as smoking, have moderate to low media literacy. Therefore, it can be said that media literacy education can be a useful strategy to promote students' health. In the past, more theoretical evidence was presented to prove this point, and fewer programs were evaluated. However, this literature review shows the importance of media literacy education by examining the evaluations of interventions in this regard(30). In this review, we used peer-reviewed articles to examine the impact of media literacy education on students' health. Due to the novelty of this topic, there were few articles in this regard to be reviewed. Therefore, the literature review was done with ten articles. The greatest emphasis in this study was on the determinants of students' health that has been affected by media literacy.

Health professionals have used a variety of strategies to regulate the effect of media on

health(21, 31-33). These include legislation on media content, reducing children's access to media, and forcing social networks to set specific rules for children. However, media literacy training seems to be essential, especially in the last twenty years(34-38).

Our study showed that media literacy had a reverse association with obesity of students. Studies have discovered that the pervasiveness of stoutness among college understudies is expanding for such reasons as an expansion in the utilization of inexpensive food type prepared meals, missing dinners, an expansion in physical and passionate stressors, insufficient actual work, and investing the greater part of their free energy(14, 20, 39-42). Corpulence causes cardiovascular sickness, diabetes, hypertension, illnesses of the musculoskeletal framework, and a few kinds of malignant growth, making youngsters helpless to these infections or making them strike prior, consequently lessening the nature of life. In expansion, stoutness can likewise cause psychosocial issues, for example, a deficiency of confidence, despondency, or a withdrawal from social relations. Consequently, anticipation of stoutness in youngsters is significant to make a solid age of youngsters and grown-ups(43-48).

Other finding of our study was role of media literacy on tobacco, drug, and alcohol prevention. Since the improvement of these projects, notwithstanding, the methodology of 'media literacy' as an anti-tobacco device has been suggested by associations, for example, the American Academy of Pediatrics, the Centers for Disease Control and Prevention and the Office of National Drug Control Policy(22, 49-51). These proposals have been a result of the revelation that media introduction to smoking contributes emphatically to commencement of juvenile smoking, regardless of whether that presentation happens in account settings, for example, films or in powerful settings, for example, publicizing and advancement(52-59). Albeit one technique for decreasing young adult smoking is lessening presentation to media portrayal of smoking, it isn't

generally conceivable as well as achievable to do this(60-68).

Many researchers agree that the media is the greatest educator in today's society(69). A person today spends a lot of time using the media. Therefore, the content of these media should be considered in various fields, especially health. Improving media literacy means that people are aware of how to get the positives from the media and identify the negatives as well. The impact of the media and how the concept of media literacy can reduce the negative effects of the media should be considered in matters related to health such as nutrition, drugs, stress, etc. For example, poor diet can have long-term effects on people's health.

In general, media literacy has a great impact on students' behavior. These behaviors will manifest themselves in society as a collective behavior and lifestyle. Given the life expectancy of students, they will live in the community for many years, so investing in media literacy can be invaluable. To promote media literacy for student health can suggest teaching students to evaluate and analyze media, Introducing correct and valid information and content to students, teaching about the function of the media and its effect on health, and encouraging students to participate in the creation of appropriate content for the media as well as the media.

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## Conclusion

This study showed that media literacy has a effect on students' behaviors ( promote health or high-risk behaviors the main studies have been conducted on nutrition, obesity, health tips, smoking, drug addiction and alcohol consumption.

It is suggested that policy makers and decision makers increase their media literacy to prevent social harm among students. Also, through attractive media programs, reduce their risky behaviors and identify alternatives. It seems that due to the emergence of this issue, more research is needed in this regard.

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## Conflict of interest

Authors declare no conflict of interest.

## Author Contributions

Conceptualization, L.M.; methodology, L.M., H.E. and A.A.; formal analysis, L.M.; writing—original draft preparation, L.M.; writing—review and editing, H.E.; review,A.A. All authors have read and agreed to the published version of the manuscript.

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