



## The Use of Written Media and Multimedia in Iran's Health Interventions and its Challenges

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### ABSTRACT

**Introduction:** In the recent years, the role of educational media has been considered to provide information and skills necessary for healthy decision-making and community health promotion. Therefore, evaluation of health education media is essential to improve and promote the quality of health education.

**Materials and methods:** The aim of this study was to investigate and compare written and multimedia media in Iran's health interventions in the last 5 years (1395-1401). For this purpose, all media-based intervention projects and theses that received the code of ethics in the country's biomedical research ethics committee and emphasized physical, mental, social, and spiritual aspects of health based on the definition of health were included in the study.

**Findings:** The results showed out of a total of 144 health interventions based on written media and multimedia that met the inclusion criteria, multimedia interventions accounted for 58% and written media accounted for 42% of the cases and the majority of media interventions emphasized the physical health dimension (88.8%) and the lowest amount of intervention was devoted to the social dimension of health (0.694%) also, only 0.09% of the researches focused on the children group, and there was no accurate and significant information about the elderly community.

**Discussion and conclusion:** Given the important role of educational media, especially new media in increasing the knowledge and community empowerment, it is recommended to pay more attention to the necessity of new media to inform health educators.

**Keywords:** Written media; Multimedia; Health interventions; Challenges

### INTRODUCTION

In the general definition of the World Health Organization, health is defined as complete physical, mental, social and spiritual well-being and the media as one of the determinants of health and contributing to health education can have an impact on improving the health of society in its various dimensions [1,2].

Educational media in the field of health, by using materials designed in printed or electronic form with the main goal of increasing the relationship between experts and audiences, try to improve the health status of the society by raising awareness, changing beliefs or changing behaviors in the audience [3]. Health education is effective in empowering people by providing awareness and information and showing health skills and experiences to people in different forms of traditional

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(written) and modern (multimedia) message transmission [4].

Multimedia is an interactive media that combines words with static and dynamic images and various forms of visual and audio content to lead to better learning compared to presenting words alone [5]. Compared to written media, multimedia is moving and dynamic, which can provide content with the advantages of easier understanding, more attractiveness and more comprehensible. Also, due to the double encoding of information (visual and audio) and stimulating the audience's senses more, they lead to better memorization, maintenance and recall of the contents and increase learning skills by 50% more than when these media are not used [6,7]. Also, the results of a systematic review about multimedia in teaching patients compared to other media focused on cost reduction, efficient time, convenient access, and user-friendliness of these media [8]. Also, one of the advantages of using multimedia in health education interventions compared to written media is improving the level of health literacy of people. Low health literacy poses a major barrier to education and self-management. Health literacy directly impacts health outcomes, such as hospitalization risk, particularly in those with chronic diseases [9]. Educational multimedia with simple information leads to a better understanding of educational information by people and ultimately improves the level of health literacy as a determining factor in health promotion [10].

## DESCRIPTION

### Method

The research community is all media-based intervention projects and theses in Iran's health interventions in the last 5 years (2018-2022), which have been coded in the ethical committee of biomedical research in the country, were selected by census method.

### Challenges

Some researchers in the field of health compared multimedia with written media in their interventions, and their results showed that multimedia interventions are more effective in increasing people's awareness and attitudes compared to written media [11-13].

Due to the advantages of multimedia compared to written media and due to the special emphasis that has been placed on new educational technologies in all areas of life, including learning and profession [14], it is expected that more health interventions than media multimedia should be used while the results of some research conducted in Iran in the past years have shown the frequency of using written media as opposed to multimedia [15].

Therefore, the first challenge created for the researchers in this study is how the use of written and multimedia media in Iran's health interventions has been in recent years. The results showed out of a total of 144 health interventions based

on written media and multimedia that met the inclusion criteria, multimedia interventions accounted for 58% and written media accounted for 42% of the cases. The result of this review seems reasonable due to the advancement of technology and communication in this area. However, the amount of use of written media is also significant. Other studies outside Iran have also acknowledged that despite the importance of multimedia interventions, the use of oral and written communication in health programs is still significant [16].

Another result obtained from this study showed that the majority of media interventions emphasized the physical health dimension (88.8%) and the lowest amount of intervention was devoted to the social dimension of health (0.694%). The findings of a study in Iran showed that among the four dimensions of health (physical, mental, social and spiritual), media programs focused more on physical health and less on mental and spiritual health [17]. While a balanced approach to all four dimensions of health should be considered and in order to empower and improve the health of society, educational planning in the field of health should also emphasize high levels of health including social and spiritual aspects and lead the society towards promote sustainable health.

Among other important issues in the study of health interventions in Iran, was the target group of the studies. The participants in the health interventions included students, nurses, patients with acute and chronic diseases, and pregnant and menopausal women. Considering the unique features of multimedia compared to written media, the greater impact of these media on the health of children and the elderly has been shown in various studies [18,19]. However, only 0.09% of the researches focused on the children group, and there was no accurate and significant information about the elderly community. This result is also one of the challenges of this review. Therefore, the design of multimedia educational programs should be considered due to the influence of these media on special groups of children and the elderly.

Another important challenge is how quality educational media are designed and distributed. Because the quality of educational media helps the audience's media literacy to correctly understand the content of the media and be able to make informed decisions. It also leads to the involvement and participation of more people in health care programs [20,21]. And it is necessary to evaluate the quality of the content through a formula or checklist. Regarding written educational media, there are assessment and appropriateness tools (SAM) and Clouse's educational level determination index and other evaluation indicators, and some researches have used these indicators to evaluate their written media. One of the reasons for the lack of change in health behavior among the audience is the inappropriate design of written educational media, such as neglecting the needs of the audience, vague and complex language in health interventions. Considering that most of the people who need such services generally have a low level of education.

Therefore, few of them can use this information [22].

This issue shows the necessity of evaluating educational media, including multimedia, due to its wider use compared to written media, however, little research evidence is available regarding the evaluation of the quality of educational multimedia, and a standard tool for evaluating different dimensions of multimedia (text, image, sound, and video) seems necessary. Evaluating the quality of multimedia from different dimensions of content, visual and audio leads to the correct reception and understanding of health messages by people and improves health literacy and ultimately changes attitudes and behavior in order to adopt health behavior. Therefore, considering importance of the media in health education and health promotion, it is necessary to prepare, produce and distribute standard media with greater effectiveness with a detailed planning and to have a standard criterion for media evaluation in order to provide effective education.

## CONCLUSION

Considering the importance of educational media, especially modern media, in increasing awareness and empowering the society, it is recommended that health educators pay more attention to different dimensions of mental and social health, in using multiple educational media. In order to correctly understand health messages, improve health literacy and change the behavior of the audience, it seems necessary to evaluate the quality of educational multimedia and design a tool to measure multimedia content.

## AUTHORS CONTRIBUTION

Authors contributed to developing the concept and design of the work. S-R extracted the information and Z-R conducted the literature assessment and information. Authors drafted and revised the manuscript. Finally, authors conducted the critical review of the final draft and approved final version of the manuscript.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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