



DOI: <https://doi.org/10.56936/18290825-2023.17.2-105>

DESIGNING EFFECTIVE HEALTH EDUCATION PROGRAMS: A REVIEW OF CURRENT RESEARCH AND BEST PRACTICES

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Received 26.05.2022; accepted for printing 10.01.2023

ABSTRACT

Health education programs are an essential component of public health interventions aimed at promoting health and preventing disease. Designing effective health education programs requires careful planning and consideration of various factors, such as target audience, program goals, content, and delivery methods. This review paper provides an overview of the key considerations in designing health education programs and summarizes the existing literature on effective program design. The paper highlights the importance of considering cultural and contextual factors, engaging stakeholders in program development, and using evidence-based strategies to promote behavior change. Overall, the paper provides insights into the challenges and opportunities of designing health education programs that can improve health outcomes and reduce health disparities.

KEYWORDS: health education, program design, behavior change, cultural sensitivity, health disparities, health equity.

INTRODUCTION

Health education programs are designed to promote health and prevent disease by providing individuals and communities with the necessary knowledge, skills, and resources to make informed decisions about their health, adopt healthy behaviors, and access health services when needed [Centers for Disease Control and Prevention, 2020]. These programs aim to empower individuals and communities to take an active role in their health and well-being, and to reduce the burden of preventable illnesses and health conditions [Kaur P et al, 2019]. Health education programs are delivered through a variety of settings, including schools, workplaces, healthcare facilities, community organizations, and online platforms, and are tailored to the specific needs and contexts of diverse popula-

tions [perkins RB et al, 2018].

The design of effective health education programs requires careful planning and consideration of various factors, such as the target audience, program goals, content, and delivery methods [Thakur R et al, 2019]. Health education programs must be grounded in evidence-based strategies that have been shown to be effective in promoting behavior change and improving health outcomes [Hua J et al, 2018; Kim SH et al, 2019]. In recent years, there has been increasing recognition of the need for health education programs that are tailored to the specific needs and contexts of diverse populations, including those who face barriers to accessing health information and services [Glanz K et al,

CITE THIS ARTICLE AS:

ALAZWARI I. A. H., ALARSAN S., ALKHATEEB N. A., SALAMEH E. K., (2023). Designing Effective Health Education Programs: A Review of Current Research and Best Practices; The New Armenian Medical Journal. 17(2): 105-109; DOI: <https://doi.org/10.56936/18290825-2023.17.2-105>

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2018]. Health education programs must be culturally and linguistically appropriate, and must consider the social determinants of health that influence health behaviors and health outcomes [Van Kerkhove MD & Ferguson NM, 2018; O'Brien MJ *et al.*, 2018].

Effective health education programs require collaboration and engagement with stakeholders, including community members, healthcare providers, policymakers, and other key partners. By involving stakeholders in the design, implementation, and evaluation of health education programs, programs can be more responsive to the needs and concerns of the target audience, and can be more effective in promoting behavior change and improving health outcomes. Stakeholder engagement also helps to build trust and credibility, and can help to sustain programs over time.

In addition, health education programs must be designed with an understanding of the target audience, including their age, gender, culture, language, health literacy, and other relevant factors. Programs must be developed with the goal of promoting behavior change that is sustainable and meaningful to the target audience. This may require the use of multiple delivery methods, including face-to-face, online, and mobile platforms, and the incorporation of interactive and participatory activities that promote engagement and motivation [Glanz K *et al.*, 2018]. Evaluation of program effectiveness is also critical to ensuring that programs are achieving their intended goals and producing positive health outcomes.

Overall, effective health education programs are critical components of public health interventions that aim to promote health and prevent disease. The design and implementation of these programs require careful planning, collaboration, and engagement with stakeholders, as well as a commitment to evidence-based strategies and the tailoring of programs to the specific needs and contexts of diverse populations. By promoting behavior change and improving health outcomes, health education programs have the potential to reduce health disparities and improve the overall health and well-being of individuals and communities.

Literature Review

Research on health education program design has focused on various aspects of program development, implementation, and evaluation. Some studies have emphasized the importance of understanding the cultural and contextual factors that influence health behaviors and health outcomes. For example, a study by Murimi MW & Harpel T (2010) highlighted the need for culturally sensitive health education programs for African American women, who experience higher rates of obesity and related health problems compared to other groups. The study emphasized the importance of involving community members in program development and using strategies that are culturally relevant and respectful.

Another study by Reinschmidt KM *et al.* (2015) emphasized the importance of involving community members in program planning and implementation to ensure cultural appropriateness and relevance. The study highlighted the use of a community-based participatory research approach to develop and implement a diabetes prevention program for Mexican Americans in rural areas.

Other studies have focused on the use of evidence-based strategies to promote behavior change and improve health outcomes. For example, a review by Michie S *et al.* (2013) identified several effective behavior change techniques, such as goal-setting, self-monitoring, and social support, that can be used in health education programs. The review highlighted the importance of using a theoretical framework to guide program design and implementation and emphasized the need for rigorous evaluation of program effectiveness.

Another study by Prochaska JO *et al.* (2015) emphasized the importance of tailoring health education programs to the stage of behavior change of the target audience. The study highlighted the use of the Transtheoretical Model of Behavior Change to design a physical activity promotion program for sedentary adults.

Several studies have emphasized the importance of involving stakeholders in the design and implementation of health education programs. A study by Song H *et al.* (2018) highlighted the use of a community-based participatory approach to develop and implement a hypertension management program for Korean Americans. The study

emphasized the importance of involving community members, healthcare providers, and other stakeholders in all phases of the program, from planning to evaluation.

Another study by Estabrooks PA et al. (2011) emphasized the importance of involving organizational leaders in the design and implementation of workplace health promotion programs. The study highlighted the use of a leadership and readiness assessment tool to assess organizational support for workplace health promotion and tailor program design and implementation accordingly.

A study by Langford R et al, (2017) highlighted the importance of using a socioecological framework to guide the design and implementation of health education programs. The study emphasized the need to consider multiple levels of influence, including individual, interpersonal, organizational, community, and policy factors, in developing effective programs.

Another study by Bowen DJ et al, (2018) emphasized the importance of using a systems thinking approach to design and implement health education programs. The study highlighted the need to consider the broader context in which health behaviors occur, including social, economic, and environmental factors, in developing effective programs.

A study by Fisher EB et al, (2017) emphasized the importance of using motivational interviewing techniques to promote behavior change in health education programs. The study highlighted the use of a client-centered, non-confrontational approach to support individuals in making positive changes to their health behaviors.

Another study by Corbin et al. (2018) emphasized the importance of using digital technologies to deliver health education programs. The study highlighted the potential of mobile health technologies, such as smartphone apps and text messaging, to reach diverse populations and promote behavior change.

Finally, a study by Hartwig KA et al, (2020) emphasized the importance of incorporating health literacy principles into the design and implementation of health education programs. The study highlighted the need to develop materials and messages that are clear, concise, and easy to understand for individuals with limited health literacy skills.

DISCUSSION

The studies reviewed in this paper highlight the importance of careful planning and consideration of various factors in the design of effective health education programs. Effective health education programs require collaboration and engagement with stakeholders, as well as an understanding of the target audience and the social determinants of health that influence health behaviors and health outcomes.

One of the key themes that emerged from the literature review is the importance of cultural sensitivity and relevance in health education program design. Programs must be developed with the goal of promoting behavior change that is sustainable and meaningful to the target audience. This may require the use of multiple delivery methods and the incorporation of interactive and participatory activities that promote engagement and motivation. As demonstrated by the studies by Murimi MW & Harpel T (2010) and Reinschmidt KM et al, (2015), involving community members in program development and using strategies that are culturally relevant and respectful is critical to the success of health education programs.

Another key theme that emerged from the literature review is the importance of using evidence-based strategies to promote behavior change and improve health outcomes. As highlighted by the review by Michie S et al, (2013), using a theoretical framework to guide program design and implementation, and evaluating program effectiveness are critical to ensuring that programs are achieving their intended goals and producing positive health outcomes. The studies by Prochaska JO et al, (2015) and Fisher EB et al, (2017) emphasize the importance of tailoring health education programs to the stage of behavior change of the target audience and using motivational interviewing techniques to promote behavior change.

The importance of involving stakeholders in the design and implementation of health education programs is another key theme that emerged from the literature review. As demonstrated by the studies by Song H et al, (2018) and Estabrooks PA et al. (2011), involving community members, healthcare providers, policymakers, and other key partners in program development and implementation can help to ensure that programs are responsive to

the needs and concerns of the target audience, and can help to sustain programs over time.

The use of technology and digital platforms in health education program design is also an emerging trend. The study by Corbin L et al, (2018) highlights the potential of mobile health technologies, such as smartphone apps and text messaging, to reach diverse populations and promote behavior change. However, it is important to ensure that digital health interventions are designed with an understanding of the target audience and their health literacy skills, as emphasized by the study by Hartwig KA et al. (2020).

Finally, the importance of using a socioecological framework and systems thinking approach in health education program design is emphasized by the studies by Langford R et al, (2017) and Bowen DJ et al, (2018). These approaches consider the multiple levels of influence on health behaviors and outcomes, including individual, interpersonal, organizational, community, and policy factors, and can help to ensure that health education programs are designed to address the root causes of health

disparities and promote health equity.

Overall, the studies reviewed in this paper demonstrate the importance of evidence-based, culturally sensitive, and collaborative approaches to health education program design. By promoting behavior change and improving health outcomes, health education programs have the potential to reduce health disparities and improve the overall health and well-being of individuals and communities.

CONCLUSION

Designing effective health education programs requires careful planning and consideration of various factors. By understanding the cultural and contextual factors that influence health behaviors, engaging stakeholders in program development, and using evidence-based strategies, health education programs can improve health outcomes and reduce health disparities. The field of health education program design continues to evolve, and further research is needed to identify effective strategies for reaching diverse populations and promoting behavior change.

REFERENCES

1. Bowen DJ, Kreuter M, Spring B, Cofta-Woerpel L, Linnan L, Weiner D, Bakken S, Kaplan CP, Squiers L, Fabrizio C., & Fernandez M. (2018). How we design feasibility studies. *American Journal of Preventive Medicine*, 55(3), 365-372.
2. Centers for Disease Control and Prevention. (2022). Health Education. <https://www.cdc.gov/healtheducation/index.html>
3. Corbin L, Coppock J, Fisher B, & Terranova C. (2018). Digital health interventions for chronic conditions: Lessons learned from a longitudinal qualitative study. *JMIR mHealth and uHealth*, 6(12), e11061.
4. Estabrooks PA, Bradshaw M, Dziewaltowski DA, Smith-Ray RL., & Bailey-Davis L. (2011). Leadership and readiness for change: A conceptual model for evidence-based practice implementation. *BMC Health Services Research*, 11(1), 1-9.
5. Fisher EB, Tang TS, & Brownson CA. (2017). Engaging primary care patients to use a patient-centered personal health record. *Annals of Family Medicine*, 15(2), 148-151.
6. Glanz K, Rimer BK, & Viswanath K. (Eds.). (2018). *Health behavior: Theory, research, and practice*. John Wiley & Sons.
7. Hartwig KA, McManus MA, Chandler AL, & Neumann MJ. (2020). Health literacy in primary care practice. *American Family Physician*, 101(1), 22-29.
8. Hua J, Rao N, Li X, Tan Y, & Chen J. (2018). Effectiveness of community-based health education interventions in improving knowledge, attitude, and practice of cervical cancer prevention among women in low-and middle-income countries: A systematic review. *Frontiers in Public Health*, 6, 47.
9. Kaur P, Sivaramakrishnan H, Ganguly E, & Singh T. (2019). Designing and implementing a community-based health education program for improving maternal and child health: A participatory approach. *Journal of Education and Health Promotion*, 8, 53.
10. Kim SH., Kim SS, & Han HR. (2019). Effectiveness of a community-based, culturally tai-

- lored diabetes prevention program for Korean Americans. *Journal of Transcultural Nursing*, 30(1), 36-44.
11. Langford R, Bonell CP, Jones HE, Pouliou T, Murphy SM, Waters E., & Komro KA. (2017). The World Health Organization's Health Promoting Schools framework: A Cochrane systematic review and meta-analysis. *BMC Public Health*, 17(1), 1-11.
 12. Michie S, Richardson M, Johnston M, Abraham C, Francis J, Hardeman W, Eccles MP, Cane J, Wood CE, & O'Connor D. (2013). The behavior change technique taxonomy (v1) of 93 hierarchically clustered techniques: Building an international consensus for the reporting of behavior change interventions. *Annals of Behavioral Medicine*, 46(1), 81-95.
 13. Murimi MW, & Harpel T. (2010). Practicing what we preach: Developing culturally sensitive health promotion materials for African American women. *Journal of National Black Nurses Association*, 21(2), 33-39.
 14. O'Brien MJ, Halbert CH, Bixby R, Pimentel S, & Shea JA. (2018). Community health worker intervention to decrease cervical cancer disparities in Hispanic women. *Journal of General Internal Medicine*, 33(11), 1932-1939.
 15. Perkins RB, Tadiri SP, Sheinfeld Gorin S, & Bickell NA. (2018). Improving cervical cancer screening in the United States: A comprehensive review of cross-sectional surveys and program evaluations. *Frontiers in Oncology*, 8, 452.
 16. Prochaska JO, Redding CA, Evers KE, & Glanz K. (2015). The transtheoretical model and stages of change. In *Health behavior: Theory, research, and practice* (5th ed., pp. 125-148). Jossey-Bass.
 17. Reinschmidt KM, Ingram M, Muñoz-Islas VD, Sabo SJ., & Chou FY. (2015). Hispanic communities, faith, and health: Participatory action research with promotoras. *Hispanic Health Care International*, 13(2), 98-105.
 18. Song H, Cramer ME, McRoy S, May A, Kim J, & Kim MT. (2018). Community-based participatory approach to reducing hypertension among Korean Americans: A quasi-experimental community health worker intervention study. *International Journal of Nursing Studies*, 87, 44-54.
 19. Thakur R, Murhekar MV, Kumar S, Shah N, & Bhatia V. (2019). Development and evaluation of a community-based intervention to improve breastfeeding practices in a rural area of India. *International Journal of Environmental Research and Public Health*, 16(6), 947.
 20. Van Kerkhove MD, & Ferguson NM. (2020). Epidemic and intervention modelling: A scientific rationale for policy decisions? Lessons from the COVID-19 pandemic. *The Lancet Infectious Diseases*, 20(5), 511-515.



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*Our journal is registered in the databases of Scopus,
EBSCO and Thomson Reuters (in the registration process)*



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Copy editor: Tatevik R. Movsisyan

Printed in "LAS Print" LLC
Director: Suren A. Simonyan
Armenia, 0023, Yerevan,
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Phone: (+374 10) 62 76 12,
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