

A systematic review of community-based interventions aimed at improving health literacy of parents/carers of children

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Background

Inadequate health literacy among caregivers is associated with ineffective (and decreases in) preventive behaviours, worse child health outcomes and an increase in emergency care utilisation. Increased health literacy has been shown to reduce health disparities. Improved health literacy enables people and communities to more efficiently access health services and manage health needs. Community-based health literacy Interventions can empower individuals to make positive changes that benefit their own and their dependents' health. Many community-based interventions have been developed to increase parental health literacy, yet no systematic review of their effectiveness has been published.

Aim

The aim of the present review was to examine the effectiveness of community-based health literacy interventions in improving the health literacy of parents.

Methods

A systematic review of the empirical literature was conducted using the following databases: MEDLINE, PsycINFO, CINAHL, Cochrane Library, Embase, Education Source. Inclusion criteria included: (i) population: parents; (ii) intervention: to improve health literacy; (iii) comparator: none, passive or active; (iv) outcome: quantitative measure of health literacy; (v) setting: community based; (vi) study design: all quantitative and mixed methods; (vii) studies written in the English language. Risk of bias were assessed using version 2 of the Cochrane RoB tool for randomised controlled trials (RCT) (RoB2) or the Cochrane Collaboration Risk of Bias in Non-Randomised Studies of Interventions (ROBINS-I). For each study containing a comparison group, the standardised mean difference was calculated. Effect size was then determined based on Cohen's d. Descriptive statistics of the synthesised effect size were reported as the median with interquartile range (IQR). Study findings

were reported following the Synthesis Without Meta-analysis (SWiM) guidelines.

Results

Following the removal of duplicates, 5581 records were screened. Four randomised and seven non-randomised studies were included in this review. The risk of bias was high in all RCT. For non-randomised studies risk of bias varied; serious (n=3); moderate (n=2); low (n=2). The median synthesised effect size d=0.28 (IQR 0.7475) for randomised studies and d=0.65 (IQR 0.4425) for non-randomised studies. Ten of the included studies significantly increased parental health literacy post intervention. Modalities differed, including text messaging, telephone-based, web-based and face to face. Ten unique health literacy measurement tools were used to assess health literacy pre- and post-intervention: six validated and four non-validated. Studies were heterogeneous preventing a meta-analysis.

Conclusion

Community-based, distance and face-to-face health literacy interventions emerged as a promising method for enhancing parental health literacy. One study employed telephone-based intervention delivery; this was the only study that did not demonstrate a significant increase in parental health literacy. These findings need to be interpreted with caution due to the limited number of included studies and their risk of bias. This review highlights the need for more theory and evidence-based research which captures the long-term impact of community-based interventions.

Implications

Methodologically stronger primary research, informed by theory, is needed to capture the components of effective health literacy intervention for parents. Researchers in the field of health literacy need to consider the suitability of using screening tools to measure change in health literacy post intervention.

Effectiveness of an Interprofessional Education Curriculum to Teach Health Literacy Best Practices at an Academic Medical University

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Background

Healthy People 2030 expanded definitions of health literacy to include both personal and organizational perspectives. This new definition highlighted organizational accountability and emphasized the role healthcare professionals play in addressing health literacy challenges. Providers must be trained to address health literacy limitations by improving the clarity in both written and verbal communication. In the interest of developing a consistent method of training interdisciplinary teams of students to use plain language and abide by the current best practices in overcoming the challenges that limited health literacy presents, our team has recently developed new health literacy-focused courses for our longitudinal, interprofessional education (IPE) curriculum.

Methods

Beginning with the Exposure phase of the IPE curriculum, all students in medicine, nursing, pharmacy, graduate school (basic and biomedical sciences), public health, and health-related professions review a family case and identify health literacy as a social determinant of health and clear communication as a necessary strategy to provide ethical, high-quality care. In the Immersion phase, interdisciplinary student teams participate in a Quadruple Aim Proposal workshop focused on health literacy. Small groups select one of several health communications problem statements and produce a written proposal that leverages health literacy strategies to advance one or more elements of the Quadruple Aim. Finally, during their Competence phase of learning, students engage in team-based assessment of written materials to apply plain language writing techniques that facilitate patients' and research participants' ability to read, understand, and act on written information.

Results

We responded to the pandemic-required shift to virtual presentation of the live, interactive sessions, and 677, 111, and 87 students completed the health literacy components of the respective phases during the 2020-2021 academic year. The following results illustrate pre- to post-session knowledge and confidence gains among students: (Exposure) Students' scores on the universal precautions knowledge questionnaires improved by over 60%, with 84% rating the health communication session as Excellent (Likert scale of 1-Poor to 4-Excellent); (Immersion) Over 50% of students who participated in the Quadruple Aim event valued the role health literacy interventions could play in advancing the Quadruple Aim and indicated that they would implement their propose programming if funding was available; (Competence)

The percentage of students who agreed that promoting effective communication among interprofessional team members, patients, and their families was very important increased by 44%.

Implications

Results support the effectiveness of our IPE curriculum in training students across health professions to value the importance of clear communication among interprofessional teams of healthcare and public health providers and develop some applicable skills. Lessons learned from implementing this program during a global pandemic has informed future curriculum development. Our hope is that these interdisciplinary training efforts will help to advance greater organizational accountability for addressing the challenges posed by equitably caring for individuals at risk for limited health literacy.

Empowerment may Mediate the Relationship between Health Literacy and Advocacy

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Background

Health literacy, empowerment, and advocacy may be important for parents when interacting with schools about their children's food allergies, which can involve complex management plans. Severe allergic reactions to food can be life-threatening. Parents not only need to train their children in self-management but also engage school personnel in food allergy management. Parental advocacy for safe food allergy practices in elementary schools may be an intermediate factor that influences the health behaviors of school personnel and students for the well-being of children with food allergies. Theoretical frameworks and limited evidence suggest relationships among health literacy, empowerment, and advocacy.

Research Question

Does parental empowerment mediate the relationship between parental health literacy and perceived effectiveness of advocacy efforts in the context of food allergies management in elementary school?

Methods

The cross-sectional study involved an anonymous online survey of parents of children with life-threatening food allergies. Measurements of parental health literacy, empowerment, and advocacy were refined through pre-testing and pilot-testing of the survey before data collection. The health literacy measure was adapted for

parental management of food allergies from Ishikawa et al.'s Functional Communicative, and Critical Health Literacy Scale. Participants were recruited online through twenty-seven food allergy organizations, including: support groups, informational groups, a food bank, and a research patient registry. A small participant incentive was offered for participation. The PROCESS macro for SPSS was used for mediation analysis.

Results

Participants (N=313) were predominantly white, college-educated mothers with moderately high food allergy knowledge. Almost 50% of their children had asthma, a risk factor for fatality associated with food-related anaphylaxis. The most frequently reported allergens were tree nut and peanut. Approximately 2/3 of participants reported that their child had one or more severe allergic reactions in their lifetime. The sample had moderately high levels of parental health literacy, empowerment, and perceived effectiveness of advocacy efforts (advocacy). Quality of the relationship with the school was strongly correlated with advocacy. The indirect effect of health literacy on advocacy through the mediator of empowerment was positive, moderate size, and significant ($ab = .114$, 95% CI [.050, .199]). The indirect effect of the mediator empowerment decreased the direct effect of health literacy on advocacy ($cl = .254$) by more than 55% (Figure 1). Reverse causality could not be ruled out.

Conclusions

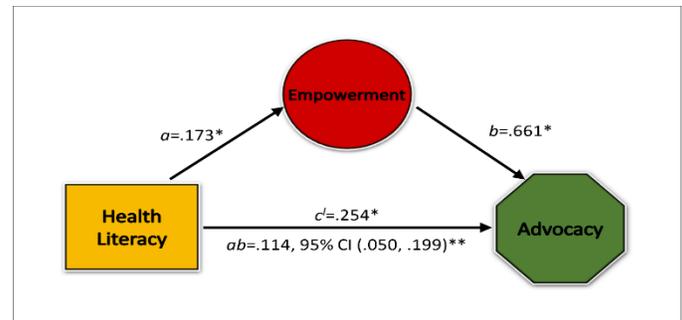
Partial support for the interrelatedness of health literacy, empowerment, and advocacy was demonstrated. A significant and mediated pathway was found from parental health literacy through empowerment to perceived effectiveness of advocacy efforts.

Implications

Parental health literacy may impact the effectiveness of their advocacy efforts for safe food allergies practices in schools, with parental empowerment influencing the relationship between health literacy and advocacy. Longitudinal research studies with greater diversity of participants are required to verify this mediating relationship. Health professionals should encourage parents to build good relationships with school personnel and help to empower families when educating them about food allergies management.

The Indirect Effect of Health Literacy on Advocacy Mediated through Empowerment

Note: Unstandardized coefficients in diagram, * $p < .001$. ** 5000 bootstrapped samples. The standardized



indirect effect was $(.245)(.429) = .105$, 95% CI (.047, .181)**

THE CONVERSATION / LA CONVERSACIÓN

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Background

[THE CONVERSATION / LA CONVERSACIÓN](#) is a national campaign to dispel myths and provide credible facts about the COVID-19 vaccines to Black and Latinx communities. The campaign offers an expansive, living video library featuring doctors, nurses, researchers, and community health workers answering commonly asked questions about the vaccines.

In this session, attendees will learn more about:

- 1) [THE CONVERSATION / LA CONVERSACIÓN](#) and the importance of creating culturally relevant public health education campaigns
- 2) How others can leverage campaign assets from the campaign to support their COVID vaccine education and outreach (all materials are free of use for educational purposes)
- 3) Reflections on challenges and opportunities working primarily in a digital space and during a pandemic

Methods

THE CONVERSATION / LA CONVERSACIÓN campaign is based on research from the Kaiser Family Foundation (KFF) and the results of several national survey results that provided the foundation for the outreach methods engaged by the team. As THE CONVERSATION / LA CONVERSACIÓN has not been through a systemic review process yet, the methods discussed in this presentation will be centered on how our outreach was conducted to reach the communities most impacted by COVID-19.

Results

As of August 2021, the videos have been viewed more than 82.7 million times on digital and social media. In addition to digital distribution, the campaign has connected with community-based organizations across the country to make sure folks have access to credible, relatable COVID vaccine information.

Conclusion

We expect to continue building on the campaign in 2022 and will adjust our materials as information from CDC and the federal government is updated and the needs in our communities change.

Implications

The national survey findings from KFF that THE CONVERSATION / LA CONVERSACIÓN are based upon surmise that on average, most Americans prefer to receive and trust medical information from their own health care provider, as opposed to online research or other sources. As our campaign features health experts from communities of color, the early success of our campaign provides a clear example of support for improved diversity of healthcare experts who represent diverse backgrounds.

Credit

Kaiser Family Foundation and our partners on the project including the Black Coalition Against COVID, UnidosUS, the American Academy of Pediatrics, Dr. Rhea Boyd, MD, MPH, and the healthcare workers who were featured in the campaign.