Concept Analysis of Community Health Outreach: a systematic review

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Abstract

Background: The definition of community health outreach to promote the health of vulnerable populations depends heavily on the particulars of the given health project and community. There is no consistency in the meanings attached to the concept itself. Our study aimed to clarify the general definition of community health outreach in order to facilitate its understanding and use.

Methods: We used Walker and Avant's method to conduct the concept analysis of community health outreach. We searched texts on PubMed, Scopus, and CINAHL databases published from 2010 to 2018 and included a total of 38 articles in our analysis. We used Walker and Avant's method to conduct the concept analysis of community health outreach.

Results: The defining attributes of the concept of community health outreach were purposive intervention, temporary, mobile, collaboration with the community, and sponsorship. The antecedents were populations at health risk and awareness of health risks. The consequences were increased accessibility and health promotion.

Conclusion: This study proposed the definition of community health outreach that a sponsored, temporary, mobile project that collaborates with a community to undertake its purposeful health intervention to reach the population at health risk. Therefore, the definition will provide a general understanding of the outreach undertaken by health workers so that health professionals and community residents can better connect.

1. Background

Health inequalities receive attention worldwide, but they remain a challenging problem among and within countries today [1]. More tailored, multifaceted, community-based strategies are required. Community health outreach provides health-related services to community residents who are at a socioeconomic disadvantage [2]. Typically, this population has been exposed to many health risk factors and have a higher prevalence of cancer and cardiovascular and sexually transmitted diseases than the general population [3]. To date, several studies have reported on the effectiveness of community-based outreach projects to provide customized interventions. They use community health workers, who are familiar with the community, form multidisciplinary teams to encourage institutional cooperation within the community, or facilitate medical accessibility by moving directly to the individuals at risk [4–6].

Community health outreach generally entails engaging in social work with vulnerable populations to address homelessness, drug abuse, mental disorders, youth problems, and prostitution. However, even basic textbooks on social work rarely mention the definition of outreach, and then, it is not considered on its own terms; it is occasionally presented as "detached," "street-based," or "preventive" work [7]. The concept of outreach is seemingly easy to understand, but it is not easy to define. The definition of community health outreach depends heavily on a health project's goals and the community's context. Researchers tend to focus on specific strategies or activities that provide health services as part of a

community project [8]; thus, outreach strategies are strongly tied with the community in question [9, 10]. Several factors influence the process: the outreach staff ("personal factors"), outreach procedures ("process factors"), and the community in which the outreach is taking place ("environment factors"; [11]. Therefore, it is hard to find a general definition of outreach.

This study aimed to establish a clear-cut concept of community health outreach by analyzing the activities involved in health-related outreach projects that were performed in communities.

2. Methods

2.1 Concept analysis approach

Concept analysis is a formal, rigorous process by which an abstract concept is explored, clarified, validated, defined, and differentiated from similar concepts to inform theory development and enhance communication [12]. Although there are many approaches to analyzing a concept, Walker and Avant's (2010) method is often used by novices to conduct concept analyses because it has 8 clear steps that derive from the process developed by J Wilson [13]. Walker and Avant's (2010) method is the appropriate application for the concept of outreach because it is obscure and has not been developed yet. Although theory can differ from context, this study was conducted to find a generalized concept of outreach among the health community.

2.2 Literature search

We focused on literature that concerned the promotion of community health. Although Walker and Avant's (2010) method suggests that an unbiased understanding of a concept should not be limited to nursing or medical literature, we restricted our search strategy to community health promotion because there has not been a concept analysis of outreach in this particular context. This study was conducted according to the guidelines suggested by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) group [14]. In February 2019, we searched PubMed, Scopus, and CINAHL databases, using the following keywords alone and in combination in titles: health, community, and outreach. Articles were searched in Pubmed using the following terms: 'community outreach' [title] from 2010/01/01. We included literature that was published in English from 2010 to 2018 that had full texts attached to the databases. We selected a total of 153 articles and excluded 30 articles because of duplication. Then, two independent reviewers worked to remove studies that were not relevant. And we manually searched the reference lists of important articles to supplement electronically-obtained data (n = 4). We removed unrelated articles that did not focus on outreach based on their titles and abstracts (n = 76). We excluded full-text articles that not focused on community outreach projects (n = 13). We also sought dictionary definitions. A total of 38 articles were reviewed in full. This process is displayed in Figure 1.

3. Results

3.1 Identifying uses of the concept from dictionaries

According to *The Oxford English Dictionary* and *Collins English Dictionary,* definitions explain that outreach is:

- An organization's involvement with or influence in the community, especially in the context of religion or social welfare (Outreach, The Oxford English Dictionary);
- (Social welfare) any systematic effort to provide unsolicited and predefined help to groups or individuals deemed to need it (Outreach, Collins English Dictionary).

There was no definition provided for how outreach relates to health, nursing, or medicine. Therefore, we performed our analysis by identifying outreach programs or projects in order to arrive at a specific meaning in these fields.

3.2 Identifying uses of the concept based on programs and projects

The study identifies the use of the concept of community health outreach using community-based outreach projects or programs.

3.2.1 For increasing health screening compliance

The Wisconsin Comprehensive Cancer Control Program awarded 5 regional healthcare systems that held events, such as outreach booths at clinics, a comprehensive Hispanic health fair, and special events for invited participants to receive free fecal occult blood test kits, to increase colorectal cancer screening uptake. These outreach events, which formed partnerships with community healthcare systems to care for underserved groups, were implemented from 2010 to 2012, and about 81% of attendees received colorectal cancer screenings [15]. Meanwhile, an outreach program providing mailing service for fecal occult blood test kits has also been reported to be an effective strategy for increasing of colorectal cancer screening uptake [16, 17]. The Helping Her Live project, which seeks to improve breast screenings and follow-ups for abnormal breast screening findings, has been implemented among minority women experiencing racial disparities in Chicago since 2008. Its outreach strategies use community health workers and a navigation protocol within communities rather than in clinics; however, they cooperate with primary healthcare clinics and mammogram facilities for participant referrals. Community health workers carry out all outreach activities, including education and navigation for women with breast symptoms, abnormal findings, or breast cancer, through workshops, health fairs, other events, and processes for women's breast health needs. Due to these activities, the rate of mammogram screening completion increased from 35% in 2010 to 72% in 2014 [18]. E Brangan, TJ Stone, A Chappell, V Harrison and J

Horwood [19] reported on a telephone outreach intervention conducted to enhance the UK National Health Service(NHS) Health Check program, which provides cardiovascular risk assessment across England every 5 years to individuals who have not been diagnosed with the disease. It successfully engaged a population with higher health needs and reduced health inequalities in the city of Bristol, the most deprived area. Another outreach service to enhance compliance with the NHS Health Check program was conducted among a vulnerable target population including men, people of South Asian ethnicity, and people from deprived areas who had a high incidence rate of cardiovascular disease. Compared with services provided by GP practices, the outreach services were more effective at reaching people of South Asian ethnicity and from deprived areas [20]. A community outreach project aimed at people with a learning disability who have greater health needs than the general population resulted in better access to health and an improved compliance rate with health check-ups [21]. RL Hoffman, B Bryant, SR Allen, MK Lee, CB Aarons and RR Kelz [10] reported that a community outreach program involving surgeon engagement was developed, using CLEAN (culture, literacy, education, assessment, and networking) to address healthcare disparities regarding cancer screening and treatment. This program depended on the collaboration of several community-based organizations focused on cancer, medical student surgical interests, surgical faculty members, and surgical residents within the community. It yielded a unique and synergistic effect for the community's vulnerable populations. A young parents' outreach center (YPOC) in a large urban Canadian city has provided a full range of health-related services, including pregnancy and nurturing for young pregnant women, fathers, and infants, by building partnerships with family medicine, pediatrics, obstetrics, and psychiatry offices. Multidisciplinary outreach clinics have been established in non-clinical settings within the YPOC for the young parent population who require more specific medical needs. Compared with hospital-based mental health clinics, the outreach clinic results in fewer missed appointments [8]. A street outreach program was planned to encourage screening for sexually transmitted diseases among young male adults in the United States. The United States Office of Population Affairs funded this community-based outreach program. The outreach staff personally contracted young men on streets, at night clubs, in buses, and so on. They educated them on facts about sexually transmitted disease prevention methods and clinic information. After the outreach program was completed, the ratio of men visiting the clinic increased [22].

3.2.2 For lifestyle change

The Community Outreach and Cardiovascular Health project was conducted to reduce cardiovascular disease risk factors and change perceptions of chronic illness care in medically underserved areas. The project was developed in collaboration with community health centers that were part of Baltimore Medical Systems Incorporated, which recruited study participants and provided outreach intervention services. Nurse practitioners and community health workers' interventions focused on individualized, tailored behavioral services. After 12 months, there were significant improvements in cardiovascular disease risk factors, including serum cholesterol, blood pressure, and HbA1c, compared with the usual care group [23]. Similarly, in the Community Outreach Heart Health and Risk Reduction Trial (COHRT) for high-risk subjects having primary or secondary cardiovascular events, telehealth lifestyle counseling was

more effective at decreasing blood pressure or cholesterol than the recommended guideline for 6 months [24]. The Outreach Pilot Program (OPP) in Puerto Rico was organized to increase smoking cessation and used community-based participatory research methods in which 8 organizations performed activities within the existing community infrastructures. From 2005 to 2008, the OPP activities included network development funding from the National Cancer Institute, research to build cancer control evidence, training and education for healthcare professionals, and promoting community awareness and physician referrals. Physician referrals and the number of annual smokers receiving cessation interventional community services increased significantly [25]. In Swaziland, there was an outreach program that mentored mothers, who received education about maternal and child health, nutrition, hygiene, and HIV prevention for 4 weeks. This program was supported by the Church of Sweden. The mentor program reported that it effectively encouraged exclusive breastfeeding for 6 months [26].

3.2.3 For increasing awareness and knowledge

The Healthy Start program, launched by the Community Health Network, developed the house party model for outreach and community-based health education to enhance knowledge about maternal and child health among diverse, hard-to-reach populations. The model was tied to community-based organizations to effectively deliver health educational messages and used community health workers to facilitate and arrange house parties with 8 to 10 participants at a house or other meeting place. After a total of 23 house parties were held, the knowledge of the study participants significantly improved [27]. A community outreach team from Ain Shams University Faculty of Medicine screened for hypertension among people living in Egypt [28]. This program was supported by community healthcare authorities from late 2011 to early 2012. The outreach team reported that the prevalence rate of hypertension is higher among obese people than non-obese adults and that undiagnosed and uncontrolled hypertension were 11% and 30%, respectively. They noted the importance of early detection of hypertension through the community outreach program. In Ethiopia, a community-based outreach program was conducted for Ethiopian women of reproductive age to improve their maternal health and family planning [29]. The project was supported with funding from international organizations and collaborated with the Ethiopian Health Development Army System for 2.5 years. It proved useful in enhancing maternal health knowledge and behaviors. LE Cofie, C Barrington, A Akaligaung, A Reid, B Fried, K Singh, S Sodzi-Tettey and PM Barker [9] reported that a community outreach collaborated with a facility-based project called Five Alive aimed to reduce maternal and child mortality in Ghana. It provided community-level outreach activities, including health education through group activities and mass media communication, and direct, personal-level outreach communication between community health workers and pregnant women and mothers of children under 5. TutoratPlus was an outreach program that trained mentors and provided worksite coaching and supervision to address a lack of healthcare professionals. It aimed to increase the use of contraceptives and decrease infant mortality. In the project, long-acting reversible contraceptives (LARC) kits were distributed to target women, resulting in a significant rise in the number of LARC users [30].

3.3 Determining the defining attributes

Defining attributes are a list of characteristics that "help you and others name the occurrence of a specific phenomenon as differentiated from another similar or related one" (Walker & Avant 2010, p.162). Reviewing the literature enabled us to identify and generalize the attributes of outreach. The 5 characteristics that seem to be most useful in explaining the term "community health outreach" are:

- Purposeful intervention
- Temporary
- Mobile
- Collaboration with community
- Sponsorship

3.4 Model and additional cases

Examples of model case, related case, borderline case and contrary case are used to clarify the concept of community health outreach.

3.4.1 Model case

The prevalence of smoking among adolescents in Korea has increased to 30% since 2010. Professionals who help adolescents planned to establish a one-year outreach project to reduce the smoking rate to 20%. They received sponsorship from the Korean Cancer Society, Youth Care Center, and Seoul City Hall and recruited volunteer nurses, doctors, and healthcare professionals, who were trained to educate adolescents. They made instructional materials, videos, and leaflets in collaboration with the Media Technology Department of the University of Korea. Korea University Medical Center contributed a health van. The project team visited a middle school once a month regularly in order to provide smoking cessation education and mailed instructional leaflets regularly. If advanced treatment or counseling were needed, the project team referred individuals to Korea University Medical Center. Finally, 1 year later, the smoking rate had decreased to 10%.

This model case included all the essential attributes and described an ideal community health outreach. The outreach project team provided an intervention for 1 year that included visiting a school to educate youth and mailed information leaflets to reduce the smoking rate to 20%. It had a purposeful intervention and was temporary and mobile. The project team operated through sponsorship from several organizations. The collaboration with the community was evident in the referral service to Korea University Medical Center and the support of the school principal.

3.4.2 Related case

The New York City Health and Hospital System is famous for cardiac surgery, and many patients wait a long time for an operation. To lessen patient stay times, the hospital system launched a home visit program for patients who were discharged within 3 days of the surgery. The program consisted of multidisciplinary teams, including nurses, doctors, nutritionists, and physical therapists. They visited patient homes to provide services and assess patients' health conditions. The period and frequency of visiting the homes depended on patient conditions and patients' ability to pay. According to the home visit program, patient satisfaction increased, and the waiting time for operation was reduced by 75%.

This home visit program is similar to community health outreach in a few ways. It had the attributes of purposeful intervention and mobility. The purposeful intervention was to provide services and assess patients' health conditions at home. To reach out to patients, the project team visited patient homes, demonstrating movement. However, the home visit program did not specify a period for the project to run, and there was no collaboration with the community. The program operated within the existing hospital system without any sponsorship. Therefore, it was not an example of community health outreach, though it was a hospital-based home visiting care program.

3.4.3 Borderline case

According to the National Police Agency, the suicide rate of people older than 60 years in Korea is the highest in the world. Elderly women have shown a higher depression rate and elderly men have shown a higher level of stress than young populations. The public health center opened an elderly care program, sponsored by the Ministry of Health and Welfare, which operated for 3 years. The program provided depression screenings, counseling, group discussion, and a referral system to local psychiatric clinics in collaboration with the public health center. The project was successful in that more than 10,000 elderly individuals visited the public health center, and the suicide rate in older people dropped to 10%.

This example is a borderline case because it contained most of the attributes of community health outreach. It involved a purposeful intervention; it was temporary; it happened in collaboration with the community; and it received sponsorship. There were efforts to decrease the suicide rate in elderly people for 3 years, a collaboration with local psychiatric clinics, and the sponsorship of the Ministry of Health and Welfare. However, this case was not mobile. Instead of moving toward the population, this program operated as part of the elderly care program in a public health center.

3.4.4 Contrary case

SS, a medical appliance manufacturer, developed a new blood glucose test machine. This product was easier to handle at home and was noninvasive. After finishing all tests on the accuracy of the machine, the company engaged in promotional activities in front of their company. Whoever wanted to test their blood sugar could use the machine.

This case is contrary to the definition of community health outreach because it has none of the defined attributes. There was no purposeful intervention. Moreover, it did not take a temporary, mobile, or collaborative approach to reach the community, and it did not receive sponsorship. Through promotion activities, SS informed the public of its new product. Therefore, this case was not an example of community health outreach.

3.5 Identifying antecedents and consequences

Walker and Avant (2010) explain that antecedents are events or incidents that must occur or be in place prior to the occurrence of the concept, and thus, antecedents cannot also be defining attributes of the same concept. Consequences, on the other hand, are events or incidents that result from the occurrence of the concept; they are the outcomes of the concept (Walker and Avant 2010, p.167). These antecedents are necessary for the occurrence of community health outreach:

- Populations at Health Risk
- Awareness of the Health Risk

A case of community health outreach must have a target population under a health risk. It should outline who needs attention or a special approach. The community health outreach activity is undertaken based on awareness of a community's health risks.

Several studies [8–10, 15–22] showed that community outreach has resulted in increasing levels of public health screenings and accessibility. Other studies [9, 23–30] reported achieving improved healthy lifestyle changes and increased awareness and knowledge due to their provision of services via their community health outreach activities. Thus, the following consequences of community health outreach are supported by our literature review:

Community health outreach results in:

- Increased accessibility
- Health promotion (final result)

The antecedents, attributes, and consequences of community health outreach are summarized in Figure 2.

3.6 Empirical referents

The empirical referents are the final step to defining a concept's attributes. They are classes or categories of actual phenomena, which answer the question "if we are to measure this concept or determine its existence in the real world, how do we do it?" (Walker and Avant 2010, p. 168) This study identified empirical indicators for each attribute of community health outreach. First, intervention strategies for

achieving project goals were identified as empirical indicators of purposeful intervention. For instance, the aim of the project Five Alive was to reduce maternal and child mortality under 5 years through personal and community-level outreach activities [9]. Projects including mailing test kits, health education, workshops, tailoring services, and using community health workers were conducted to improve compliance with colorectal cancer screening and mammograms [15–18].

Second, specified operational periods serve as empirical indicators of the attribute of temporality. A project for improving maternal health and family planning has been operating for 2.5 years in Ethiopia [29]. The Community Outreach and Cardiovascular Health project, which sought to improve cardiovascular disease risk factors, ran for 12 months [23].

Third, moving toward the target population serves as an empirical indicator of mobility. For instance, the outreach staff of a street outreach program goes to certain places such as streets, night clubs, and buses to meet the target young male adults to educate them on sexually transmitted disease prevention methods [22]. Telephone outreach activities enhance health checks [19], and mailing outreach activities increase colorectal cancer screenings [16, 17]. These various methods reach target populations wherever they are.

Fourth, collaboration with a community was identified as collaborating with experts, systems, or leaders in a community. For instance, the project for improving cancer screenings collaborated with a medical student surgical interest group, surgical faculty, and surgical residents within a community [10]. The project for the maternal health and family planning of Ethiopian women collaborated with the Ethiopian Health Development Army System [29].

Fifth, the operating of an outreach project through individual or institutional funds served as an empirical indicator of sponsorship. The Outreach Pilot Program (OPP) for increasing smoking cessation was funded by the National Cancer Institute [25], and the maternal health and family planning project was sponsored by international organizations and collaborations [29].

3.7 Definition

Based on our concept analysis, community health outreach is:

A sponsored, temporary, mobile project that collaborates with a community to undertake its purposeful health intervention to reach the population at health risk.

4. Discussions

This study aimed to investigate concept of community health outreach, by revealing its attributes, antecedents, and consequences using health-related outreach projects performed in communities. The defining attributes of the concept of community health outreach were both essential attribute including purposive intervention to improve health (increasing for health screening compliance, building for healthy

life style, and increasing for health awareness and knowledge) and methodological attributes including temporary, mobile, collaboration with the community, and sponsorship to achieve the purposive intervention. The required antecedents for the occurrence of community health outreach included populations at health risk and awareness of health risks. After all, the consequences of its antecedents and project intervention including attributes of community health outreach included increased accessibility and health promotion. Thus, based on our findings, we defined the community health outreach as a sponsored temporary, mobile project that collaborates with a community to undertake its purposeful health intervention to reach the population at health risk

Despite of continuous effort at the government level, even in developed countries, health inequalities remains [1]. The Community-based heath outreach strategies that can applied directly to socioeconomic disadvantage population have implemented as one of the most effective strategy in resolving health inequalities and building healthy communities [2]. Here, our study findings could contribute providing precise knowledge for community health outreach to health professionals who play a critical role in establishing community health strategies and in providing health related services. That is, the knowledge can provide guidance for setting target community, for members to set the goals, and for detailed planning of community interventions to health professionals. In addition, proposed definition of community health outreach in our study can provide a theoretical basis for health related disciplines, establishing a boundary with other academic disciplines.

This study had a couple of limitations. The methods for concept analysis are generally applied to theories, but this study looked at the practice of community health outreach literature. Moreover, our review was restricted to 3 databases. However, it provides a basis for further, more rigorous studies and corrects the absence of a concept analysis of outreach as it pertains to community health promotion.

5. Conclusion

This concept analysis provided a basic definition and identified antecedents, critical attributes, and consequences from a very general perspective. Our proposed definition offers a general understanding of outreach meant to promote community health, and thus, it will enable better communication and facilitate outreach to overcome health inequalities. Future researchers will be able to use this definition more accurately in their studies, and healthcare professionals will be able to identify antecedents, critical attributes, and consequences of outreach on the ground. Our analysis can help guide outreach organizers and healthcare professionals.

Abbreviations

CINAHL: Cumulative index to Nursing & Allied Health Literature; PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses; NHS: UK National Health Service; CLEAN: culture, literacy, education, assessment, and networking; YPOC: young parents' outreach center; HbA1c: hemoglobin A1C;

COHRT: Community Outreach Heart Health and Risk Reduction Trial; OPP: Outreach Pilot Program; HIV: human immunodeficiency virus; LARC: long-acting reversible contraceptives

Declarations

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

All authors conceived the study. Ka Young Kim and Purum Kang contributed to establishing the search strategy. Hye Young Shin performed a title screening and abstract screening. Ka Young Kim and Purum Kang contributed to the refinement of the inclusion and exclusion material. Hye young Shin screedned the completed full text review. Ka Young Kim and Purum Kang conducted the data extraction. Hye Young Shin interpreted the obtained data. All authors reviewed the manustript and approved the final manuscript.

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Figures
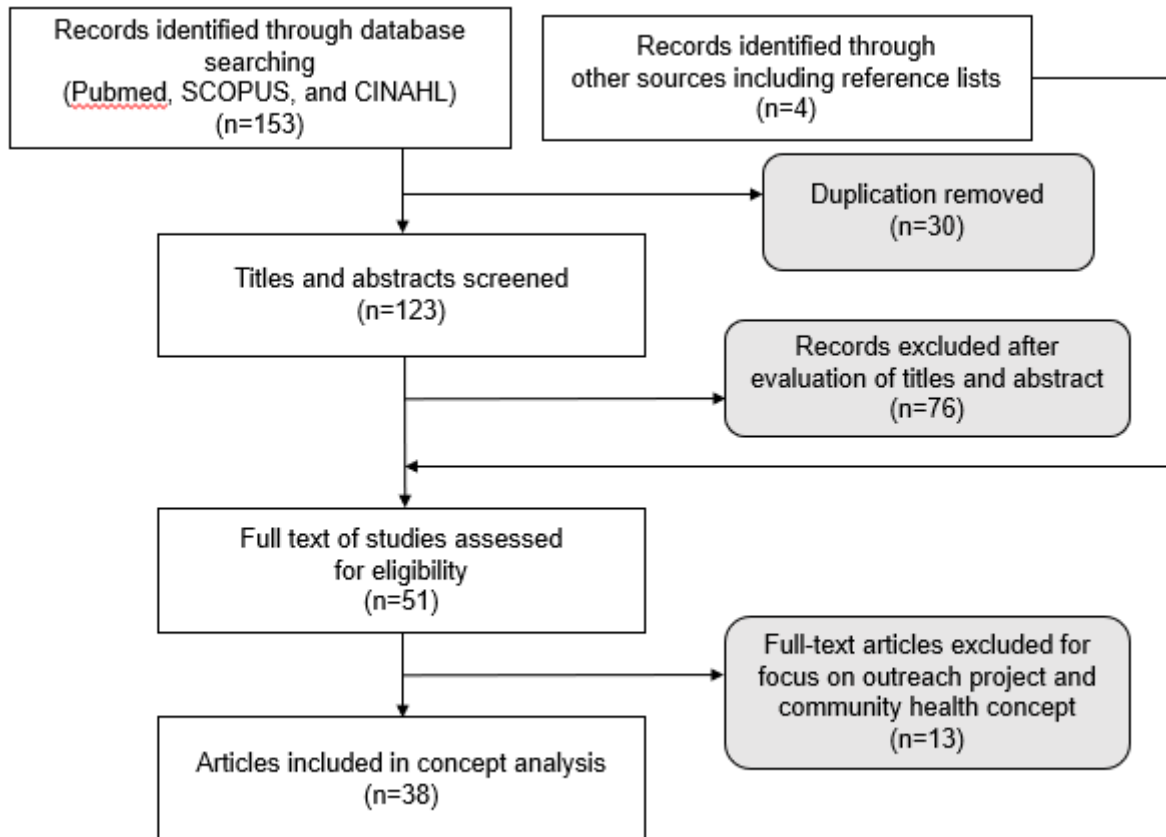
Figure 1

Flowchart of literature search
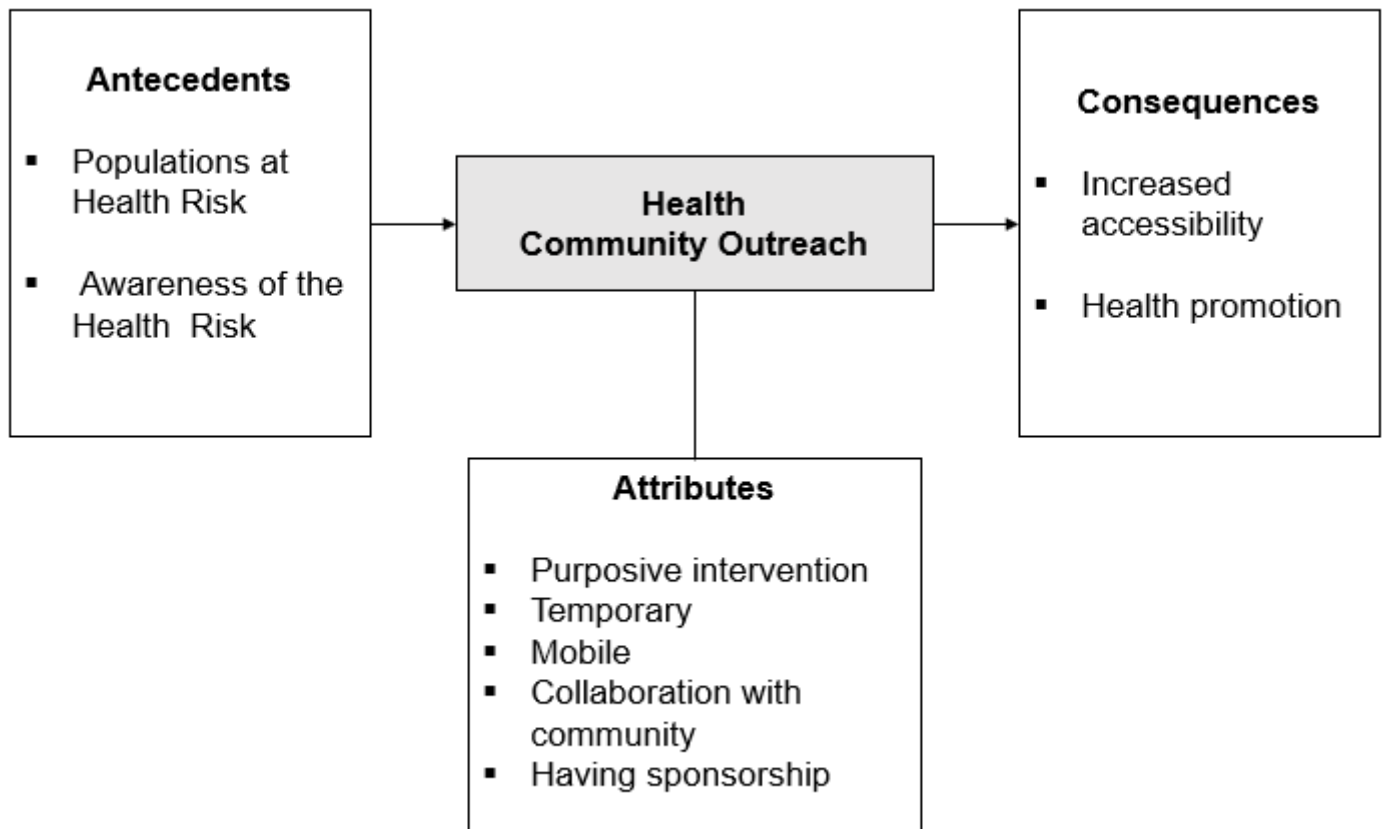
Figure 2

Antecedents, attributes, and consequences of community health outreach