Faith-placed cardiovascular health promotion: 
a framework for contextual and organizational 
factors underlying program success

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Abstract

The objective of this study was to assess the literature on faith-placed cardiovascular health promotion in order to construct a framework of factors meant to facilitate effective program design. Data source was empirical studies on the contextual and organizational factors underlying faith-placed cardiovascular program performance. Study inclusion criteria were papers reported from 1984 to 2003 that include contextual and organizational variables. Success factors identified in the literature fall under the following clusters: faith support, secular support, partnership (and obstacles to it), faith organization capabilities, secular organization capabilities and caring intervention. Each cluster consists of several factors, whose relative weights cannot be ascertained from the present state of the literature. These clusters of factors can be interrelated through a simple framework that is useful in program design.

Introduction and objective

The United States has one of the world’s highest rates of cardiovascular morbidity and mortality, especially among lower income groups and African American communities. In response, researchers have become interested in the effectiveness of faith-placed health promotion programs [1, 2]. We will refer to programs as ‘faith-placed’ when they (i) actually include spiritual reinforcement (and so are also ‘faith-based’), (ii) take place in a religious-setting or (iii) are organized and operated with the significant involvement of a faith group [3]. As all the studies here are of Christian denominations, the word ‘church’ serves as an accurate substitute for ‘faith-setting’.

Faith-placed programs can reach entire memberships, facilitating the diffusion of information. They take advantage of high church affiliation among US adults. They appear to be especially good avenues for reaching minority populations, particularly African Americans [4, 5], who have disproportionately high rates of mortality from coronary causes [6] and receive insufficient care from conventional medical sources due to inadequate access to medical care or under treatment [7–9]. Many churches, especially those serving African American communities, see health as one of their missions [10–12], though usually through charitable assistance to those already sick. Church-related programs may also be effective at reaching women, who are more likely than men to attend church [13]. African American women suffer higher rates of mortality from cardiovascular disease than white women, because of higher prevalence of obesity and related risk factors [14, 15], while they appear to have...
a lesser likelihood of favorable response to conven-
tional intervention [16]. Therefore, faith settings
may offer important health promotion opportunities
[17, 18].

The purpose of the faith-placed initiatives is
relatively easy to specify: to motivate the adoption
and sustained maintenance of healthy behaviors,
thereby to reduce cardiovascular disease. There is
now a growing literature with empirical findings on
the factors contributing to such improved health
behaviors. However, when examined in aggregate
across numerous studies, the factors turn out to be
diverse, sometimes arbitrarily chosen, and unclearly
interrelated. The fragmented results pose a problem
both for further research (which factors to test for?)
and for program design (what program features
effectively motivate health behavior adoption?).
The purpose of this article is to propose a framework
of interrelationships among factors underlying
program success.

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**Research method**

Conceptual frameworks are widely used in health-
related research because they can help reveal the
structure of multivariate relationships. For example,
factors may be divisible into hierarchies, such as
socioeconomic, organizational and contextual, behav-
ioral and biological. Some causal variables may
be direct (proximal), others remote (distal) and
still others having mediating roles. A properly con-
structed conceptual framework helps reveal these
interdependencies [19]. The results benefit research
by clarifying the factors to be studied and support
program design by identifying the sets of factors
subject to intervention.

For the field of faith-placed cardiovascular health
promotion, we set out to construct a framework by
assembling the variables identified in published
empirical research. We examined studies reported
from 1984 to 2003 with respect to blood pressure
control, weight loss, cholesterol education, diabetes
education, smoking cessation, physical activity and
nutrition education. Studies were identified using
‘Medline’ and ‘PsychInfo’ databases, using key words
‘faith’, ‘community’ and ‘church’, in combination
with ‘cardiovascular’ (or its risk factors ‘blood
pressure’, ‘diabetes’, ‘obesity’, ‘weight’ and ‘cho-
lesterol’). To be included, studies had to include at
least one empirical finding of an organizational
or contextual independent variable affecting adop-
tion of healthful behaviors or improved cardiovas-
cular outcomes. Studies that surveyed awareness of
cardiovascular risk factors without studying health
intervention were excluded.

As previous summaries of this literature point out
[3, 20], some studies are single-case descriptions or
have methodological insufficiencies. Where success
is empirically measured, it is measured by changes in
cardiovascular risk variables, changes in nutritional
or exercise behaviors or implementation (or accep-
tance) by faith-affiliated providers. Many studies do
not include control groups in their research design.
Most studies lack long-term follow-up. Despite such
limitations, the literature offers important findings
on program variables affecting health outcomes.

The independent variables can be roughly divided
into ‘behavioral’ on the one hand and ‘contextual’
and ‘organizational’ on the other. Behavioral vari-
ables include incentive and reward types, self-
assessment versus supervised monitoring, numbers
of participants, type of risk factor being targeted,
targeting of one versus more risk factors at once
and the acceptability of nutritional versus exercise
interventions.

Contextual factors consist of the settings in which
the subjects were asked to make behavioral changes.
These settings include the physical settings (such as
a church gym), perceptions of social encouragement
or discouragement, types of participants in mutual
relationships, shared knowledge about health or
wellness and shared beliefs—especially religious
beliefs—that promote (or discourage) health behav-
ior change. Organizational factors include adminis-
trative divisions, policies and program offerings.
This article focuses exclusively on contextual and
organizational factors. (To be sure, the organiza-
tional/contextual and behavioral variables interact,
but are distinguishable for analytical purposes.)

Our method is as follows: (i) identify studies of
faith-placed programs that met our criteria, (ii) list
findings of contextual and organizational ‘independent
variables’ (a term used here interchangeably with ‘factors’) shown to affect cardiovascular outcomes, (iii) interrelate the factors in a simple—parsimonious—framework that has improved health behavior as its dependent variable. Parsimony is essential in assembly of the framework. We avoid speculatively extending the framework (about factor interrelationships) beyond the detail justified by the literature. Clarity about what is not known about interrelationships helps future researchers better choose paths to be investigated.

We find that the empirical results appear more coherent when variables are assembled into clusters. These are ‘faith organization support’, ‘secular organization support’, ‘partnerships’ (that interrelate the two kinds of support), ‘obstacles’ (to partnership) and ‘awareness’ (of cardiovascular health on the one hand and of religious and cultural values on the other). However, the literature does not help us understand the factor interrelationships within clusters. The rest of this article successively describes these clusters.

### Results

**Faith support**

Faith organizations carry out their mission to bring about better cardiovascular health through support extended through family, peers, volunteers, pastors and the very location of activity in a faith setting.

**Family support**

Several studies [21, 22] (including ones that were not church-related) reported the importance of family support in enhancement of physical activity and healthy eating, especially among women. One study reported that church volunteers taught family members how to better support the patient having high blood pressure in the family. The program achieved the lowering of diastolic and mean arterial blood pressure, as measured after treatment and at 3-month follow-up [23].

**Peer support**

In a study of nutrition and activity behavior among overweight African American women in Baltimore, congregant peer support turned out to be important in controlling blood pressure. The program directors fostered frequent contact of women participants with each other outside the weight-control classes in order to facilitate the formation of support groups. Participants reduced 2.5% of their initial weight after 8 weeks of intervention; their reduction was sustained by 65% of the subjects who attended the 6-month follow-up. The project succeeded in achieving significant blood pressure reductions. In addition, participants ranked the social support as possibly the most useful aspect of the program [2].

**Volunteer support**

Several studies reinforced each other in finding that lay volunteers motivated by religious background are important contributors to cardiovascular health promotion [24, 25]. One program conducted among African Americans in Baltimore trained and certified lay church volunteers as smoking cessation specialists [26]. Another program used lay volunteers in African American churches to provide health education, lead exercise classes and advocate smoking cessation [27]. Though the connection with the volunteers’ roles could not be confirmed, the program did achieve a significant decrease in cardiovascular risk factors by the end of the intervention.

In a randomized, controlled, church-based weight-loss program for urban African American women at risk of diabetes, trained volunteers conducted the intervention, but under supervision by research staff. The project increased positive eating behaviors (high fiber foods), decreased negative eating behaviors (high fat foods) and increased exercise [18]. Comparison between the relative success of supervised and unsupervised volunteers was not available. Still another cardiovascular health program in Rhode Island divided volunteers from 16 study churches into small groups, each trained in one of the five risk factors (blood pressure, smoking cessation, heart health nutrition, weight loss and fitness) and in behavior change and group management. Once certified, the volunteers were able to independently plan, promote and conduct programs in their affiliated churches [28]. No comparison was available between volunteers
with such specialized training and volunteers with more general training.

Pastoral support

The pastor (or other religious community leader) is necessarily involved in establishing a faith-placed intervention program. The pastor has the authority and the community trust to play a direct role in encouraging behavior changes, as by linking spiritual and physical health [4]. In a study that examined several denominations in Baltimore over a year [17], pastors’ (and their spouses’) regular urging of physical activity and healthful eating contributed to improving the cardiovascular risk profiles of African American women. In another study [2], pastoral health-oriented messages were shown to be more effective in promoting healthful behavior, such as increased fruit and vegetable consumption, than the standard provision of health messages. The pastors can contribute not just through direct persuasion but also through planning and data collection [26] and as task force directors and arrangers of training sessions [28].

Support through the faith setting

Although churches have been hosting a growing number of fitness programs, most carry them out at a Young Men’s Christian Association or similar location, since few have their own fitness facilities. An important possibility is the religious-oriented health club, a rapidly growing phenomenon in the United States, offering faith-based fitness [29]. Even if a health promotion program cannot be located on church premises, a faith-related location is a success factor in adherence to an exercise regimen [30, 31]. The facilities also enable members to socialize with family and peers [32], reinforcing the variables discussed above. However, Resnicow et al. [33] suggest no advantage to intervention within the church setting.

Secular support

Secular organizations that can assist faith-placed efforts include health care systems, academic institutions, government and private organizations. Their involvement appears to be a critical success factor. The most obvious form of secular support, namely funding, is being addressed by several government and foundation programs [34–38].

Several studies emphasized health care organizations’ importance in educating and assisting the faith participants, including family [23], volunteers [18, 26, 27] and pastors [30, 39–41]. In some programs, secular staff (sometimes including researchers) conducted the program, while assisted by faith community members [2, 17]. In others, secular staff acted as facilitators [26], while still others transferred program ownership to the church while remaining available for consultation [18, 23, 27, 41, 42]. The literature expressed the general belief that transfer to faith-affiliated control increased the sense of responsibility and the acceptance of the program by congregants, fostering success (though literature described below also pointed up the importance of high-visibility involvement by secular professionals).

Several sources put high hopes in potential roles of academic institutions in providing expertise across a range of disciplines [4, 40, 41]. The types of assistance included the design of health promotion protocols, creation of instructional programs for clergy and volunteers, grantsmanship and provision of facilities for conferences [41]. It has been suggested that nursing students could take an active part in the implementation of cardiovascular health promotion studies as a part of their clinical practice [30, 40].

Partnership and the obstacles to it

Since interventions benefit from both faith-placed and secular support, cooperation between these two sets of support groups becomes a critical success factor.

An event organized by multiple partners (faith-based communities, academic communities, medical communities and state and local agencies) can serve as a dynamic way to launch a health promotion partnership. A case in point was the collaboration by four universities and 30 churches to organize a healthy lifestyles conference [41]. Conference planning appeared to have had long-term benefits for collaboration, including joint efforts.
to seek additional grants, hire staff and create a monthly newsletter.

Obstacles arose from differing ideals of religion and science. On the part of academic and medical institutions, resistance to involvement in religion persisted despite the growing evidence demonstrating roles of religion and spirituality in physical and mental well-being [43–46]. Moreover, individuals raised in spiritual traditions may have had perspectives about health and disease very different from persons who draw their beliefs primarily from a medical and scientific education. The infringement of one group’s views on the other has led to a sense of violation of autonomy, undermining a productive partnership [47].

Intervention programs subjected to formal research face further constraints. The needs for control groups and randomized research design may violate the religious organization’s spiritual mission, because health benefits would not be provided equally to congregants [48]. Health research in African American communities faces a particular heritage of mistrust from past cases of unethical research and from memories of discrimination by health care providers [49–51], and may face local groups’ resistance to complicated bureaucratic procedures [52, 53]. Interveners must also work with faith-based organizations that differ widely in administrative capability, culture, location and size [54].

Despite the obstacles, the increasing need for health care in poor or minority neighborhoods and evidence on the effectiveness of faith-placed health promotion have fostered a number of two-sided partnerships: between religious organizations and academic institutions [54–56] and religious organizations and health care [54, 55, 57, 58]. A few examples of multisided partnerships have been reported [2, 30, 41].

Building faith partners’ awareness

This section summarizes factors in the development of the faith partners’ awareness of, and capability in, health matters. As we have seen, pastors and lay leaders can serve as activists in support of partnership, overcoming congregants’ suspicions and uncertainties and forging links between the secular intervener and other civic groups [60].

Education and training

One way that pastoral involvement can be encouraged is by including public health in pastoral education [59], though it is typically lacking in a Christian theological seminary [60]. Another way is to foster training programs (outside the seminary) for laity or pastors [17, 30, 40]. Studies have followed effects of lay leaders trained to independently conduct nutrition and exercise education sessions. One program measured success in the ability of trained volunteers to continue their work for 2 years [61], while another found significant improvement in subjects’ cardiovascular risk factors in a 1-year follow-up [17]. A multisector partnership that included training for clergy and lay leaders reported positive impacts through health fairs and provision of health advice [30]. A study proposed the creation of academic ‘centers of excellence’ meant for pastor training in health promotion and program planning [4]. Other studies suggested but did not empirically verify that parish nurses could provide valuable liaison between the medical and religious communities, through educational, counseling, screening and referral [62–65].

Steering committees

Although various names are given to these committees, and they are of varied composition, they share an interest in increasing pastoral commitment to health promotion by increasing pastoral control. In ‘Heart, Body and Soul’ [26], investigators formed a committee comprising three pastors representing as many denominations. Pastors worked closely with investigators on staff hiring, intervention strategies and data collection. Other studies also included steering committees or community panels [17, 66]. In all cases, these committees are reported to increase churches’ sense of the ownership of the program.

Social contracting

Social contracting consists of explicit commitments by participants to engage in recommended
activities, often with reward or penalties as incentives [67, 68]. Researchers considered this to be a strategy for positive social reinforcement, when there is an agreed-upon specific goal. The contract can be verbal or written and unilateral (involving one party) or multilateral (involving two or more parties). Two projects [17, 26] each introduced a ‘covenant’ (a term found more appropriate than ‘contract’) by which pastors agreed to support the project and came to be involved in both planning and intervention.

**Building secular partners’ awareness**

Though there are many interactions between culture, religious belief and health, health professionals tend to have relatively little knowledge in the interactions and often disregard them [69]. Several studies suggest that secular interveners should appreciate spirituality in community health, learn to respect religious sensibilities and incorporate reciprocity and community participation in programs [17, 18, 26, 57, 70, 71]. Suggested methods of building this appreciation include academic short courses and conferences on culture, religion and spirituality [72]; medical school courses on the subject, which are still rare [73] and courses in nursing curricula [74].

**Spiritual awareness**

Health promotion programs are reported to benefit when secular interveners appreciate the roles of spirituality in health promotion [17, 18, 26, 57]. In many minority and poor communities, religion is a part of the fabric of civic life and physical health is popularly understood as being intertwined with spiritual life [75–77]. This is one of the rationales for faith-placed intervention.

Also, clients’ spiritual beliefs appear to facilitate the adoption of healthy behaviors [78]. In response, some cardiovascular health promotion initiatives cited scriptural passages in intervention programs. Project Joy [17] contrasted spiritually oriented with non-spiritual health program for African American women. For the spiritual group, the program provided weekly group prayer sessions, health messages enriched with scripture and aerobics combined with gospel music and worship dance. The authors said that it was impossible to maintain the non-spiritual control group, since the ‘control group’ members added their own version of spirituality to the sessions.

A growing body of evidence demonstrates multifaceted roles for religious beliefs in individual physical and mental health [43–46]. Religious involvement may reduce smoking and alcohol abuse [79, 80]; influence mental health by fostering emotions such as hope [81] and protect against depression, especially in later life [82].

In one study, men who said religion was important in their lives had significantly lower blood pressure than those who did not believe religion to be very important [83]. In addition, clients have simply expressed a desire for religious understanding in health care. In a cross-sectional survey of 203 patients from family practices in North Carolina and Pennsylvania, USA, 77% said that physicians should consider patients’ spiritual needs, 37% wanted physicians to discuss religious beliefs with them more frequently, 48% wanted their physicians to pray for them, 98% said that they believe in God and 94% agreed that spiritual health was as important as physical health [84].

Yet, studies show that spirituality can be a barrier as well as facilitator of change. Spirituality may be accompanied by a sense of fatalism, which could foster resistance to changes in lifestyle. A fatalistic attitude appears to be more prevalent among African Americans than whites [85, 86]. According to a study of African American churchgoers, 30% of the respondents believed that their health was dependent upon fate and destiny; this belief was related to the frequency of church attendance [87].

At the prospect of exercise or dietary restriction, those with fatalistic beliefs may resort instead to prayer [88]. Such beliefs are common with respect to mental illness. Chronic diseases such as coronary heart disease and obesity often contribute to depression [89, 90]. Yet members of faith communities—including religious leaders—may regard depression merely as a state of mind that could be treated with prayer.
Cultural awareness

Religious communities are heterogeneous not only in their beliefs but also in cultural practices, such as dietary preference and modes of interpreting the provision of care [91, 92]. Studies suggest that attempts to modify diet may have complex culturally specific implications. Participants may sense that new dietary prescriptions deny cultural roots, violate the authority of parents and grandparents, deny upbringing and tradition and conflict with valued childhood memories [93–95].

A faith-placed weight-loss program for urban African American women at risk of diabetes took into consideration the culturally accepted large-body sizes of the participants. The researchers encouraged weight loss, but not slenderness, in the experimental group. After the completion of a 14-week program, experimental group members lost an average of 5% of bodyweight, while control group members gained an average of 1%. This culturally sensitive approach was reported to be one of the important reasons for the success rate [18].

Methods of adapting to dietary beliefs include congregants’ participation in assessing their own cuisine. An example would be the development of healthy recipes in the church kitchen. The introduction of unfamiliar food in the church (as with cooking contests) and consumption of the food in church can foster long-term adoption of the foods [66]. The Healthy Body/Healthy Spirit Project [70] provided a cookbook, ‘Eat for Life’, containing healthful recipes submitted by members of local churches. The researchers proposed that culturally adapted educational materials would result in improved diet and increased physical activity compared with the standard health education materials.

Incorporating caring and trust

Several studies stress that effective intervention depends on the development of trusting relationships between secular interveners and the faith community.

Caring research

For Leininger [96], ‘caring research’ required researchers’ visible involvement during the program. One study [28] tested the effect of low versus high involvement. In the ‘high-involvement’ group, staff engaged in frequent meetings and phone calls with trained volunteers and church members. In the ‘low-involvement’ group, face-to-face meeting and phone calls occurred infrequently. Results of these interventions were unspecified. The conduct of the health program in the church facility has been seen as another way to increase secular interveners’ visibility to congregants [2, 17, 18, 26, 66].

Community participation

Studies stressed that health interventions achieved greater success through community-based participation, including participation in managing the research itself [97, 98]. In a study in which the church pastor and volunteers helped tailor the intervention program, the authors reported greater participant acceptance, with no loss of scientific integrity [26]. In results published so far, a 5-year randomized study of churches in 60 North Carolina counties, church leaders expressed high belief in the importance of participation and empowerment [99]. In Droege and Wenger [39], the faith community was involved throughout the research, including the defining of health needs and some of the planning for the studies; collected data were made available to the community for its own interpretation.

As such studies contend, the participatory approach gives to the faith community a sense of responsibility for and control over the programs [100, 101]. Though the importance of community-based participation to project success is highly plausible, the published literature tends to be characterized by such strongly expressed favorable sentiments, combined with relatively little empirical evidence, that further rigorous studies are called for.

Conclusion

The studies reviewed here demonstrate that faith-based programs are a promising means of reducing cardiovascular health risk factors among minorities and women, who tend to be at greatest risk than the rest of the population from cardiovascular illnesses. The studies make a strong case that success depends
on a number of identifiable factors, but do not say how these factors interrelate. We propose that contextual and organizational factors be grouped into ‘clusters’ as systematically interrelated in Fig. 1.

In short, factors clustered under ‘faith support’ and those under ‘secular support’ drive outcome variables (leading to health behavior modification) directly. Otherwise, they drive them indirectly by interacting through ‘partnership’, an interaction modified through respective secular and faith-based clusters of ‘capacity building’ variables (Fig. 1). We contend that, for the cumulative development of knowledge on this subject, researchers should select factors to be studied (and explicitly add or subtract factors) with respect to a framework such as this. Moreover, designers of intervention programs should consult such a framework to better take advantage of the success factors identified to date.

This framework is partly hypothetical and far from complete. Studies are needed on factors that have so far been inadequately studied. They include the potentials of parish nurses and the potential roles of media and religious broadcasters [102, 103] in reinforcing healthful behaviors. Further studies are needed that explicitly compare religious denominations in their effectiveness at mounting health promotion programs while observing their members’ relative cardiovascular risk factors [104, 105].

Researchers could endeavor both to confirm the relationships identified here between clusters of factors and to clarify the relationships among factors within clusters. For example, we identified one cluster of factors that facilitate health promotion as faith support. Further studies are needed to better differentiate the relative contributions to faith support by, and potential synergies among, family, peers, volunteers, pastors and activity location. To sufficiently analyze the relative contributions of these factors and clusters of factors, and thereby verify or disprove frameworks such as this one, studies should be considered in at a large and possibly national scale and using standardized variables [106].

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