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Hispanic Church Attending Youths' Perceptions of Healthy Bodyweight Promotion in Faith-Based Community

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Abstract

Objective: Childhood obesity disproportionately affects Hispanic children and youth in the United States, calling for innovative public health interventions. Due to Hispanics' religious affiliation, faith-based communities present a viable platform for childhood obesity prevention. This study aimed to gain insights on Hispanic church-going youths' perspective for designing healthy bodyweight programming for faith-based communities.

Methods: This qualitative study conducted nine focus groups with 56 youths aged 10 to 18 years from nine predominately Hispanic churches in Texas, USA. Using a semi-structured guide, the discussions were facilitated by trained moderators and audiotaped. Audio recordings were transcribed verbatim and inductively analyzed utilizing NVivo software. Member checking, debriefing, and team analysis approach were implored to enhance trustworthiness of findings.

Results: Participants perceived the connection between faith and health affirming that one's body is God's Temple. Church was viewed as a natural setting for supporting healthy lifestyle changes. Participants called for healthy food options and fun physical activities in conjunction with health education for congregants. Youth also identified facilitators (e.g. social support, role modeling and support from church), as well as barriers (e.g. culture, lack of money, bad neighborhoods and resistance to change) to successful program implementation.

Conclusion: Church is a promising setting for health promotion programming. Healthy Sunday school curriculum and church health environmental and policy changes, along with culturally appropriate, family-oriented health education and activities are potential strategies for childhood obesity prevention in Hispanic faith-community settings.

Keywords: Childhood obesity; Obesity prevention; Faith-based interventions; Qualitative; Community-based; Healthy lifestyle

Abbreviations:

CBPR: Community-based Participatory Research; U.S.: United States

Introduction

In the U.S., the last three decades have shown a dramatic increase in the prevalence of childhood obesity [1]. Approximately one-third of U.S. children ages 2-19 are overweight or obese [2]. Hispanic children and youth are disproportionately affected by obesity and obesity-related diseases [3]. Approximately four of every ten Hispanic children are classified as overweight or obese [4]. Overweight and obesity in childhood increases the adulthood risks of: type 2 diabetes, hyperlipidemia, hypertension, and obesity [2,5-7]. Moreover, the psychosocial burden of childhood obesity may cause difficulties with depression, verbal and physical abuse by peers, and discrimination, as well as have lasting effects on self-esteem, body image, and economic mobility [2,4,8]. Obesity prevention programs are urgently needed to address childhood obesity in the Hispanic population. It is important to note, Hispanics represent the largest, youngest, and fastest-growing minority group in the nation [3]. An innovative approach addressing the specific needs of this ethnic minority is warranted.

Faith-based communities may be a promising setting for obesity prevention in ethnic minorities, e.g., Hispanic children and youth [9]. Research suggests that places of worship may provide access to the immediate and extended family and offer valuable opportunities for family and culturally specific support for obesity prevention programming for ethnic minorities [10]. In fact, a majority of Hispanics have a Catholic or Protestant faith and participate in faith-based communities [11]. Faith communities serve foods, often unhealthy selections, to children and families at a variety of events including at worship and Bible or group study, as well as part of youth programming, and special events [12]. These events where foods are served offer critical points for intervention. Churches, which have supplied social, emotional, and material support in addition to religious worship, have served as a focal point for social networking and

are well-integrated into individuals' lives and communities. In addition, the transition from childhood to adulthood is a critical developmental period in a child's life [13]. During this time they are learning to be more autonomous in decision-making and behavior, yet they remain extremely impressionable. Youth are a population that many religious organizations target in order to exert influence in their lives [13]. With a family oriented culture and a high value placed on religion, faith-oriented health programing may prove to be particularly beneficial for Hispanic youth likely raised with similar values and religious affiliation. Recent research revealed that church leaders indeed recognize the importance of messages regarding physical and spiritual health [14,15]. Faith community leaders also envisioned a role for faith communities in addressing childhood obesity, which supports the ongoing development of health promotion programs through faith community engagement [16]. A recent literature review suggested that faith organizations are promising settings for obesity prevention among high-risk groups and called for involvement of diverse faith settings to address obesity in children [17]. Childhood obesity prevention programming through the faith-based community platform might be viable for Hispanics.

In order to develop effective faith-based obesity prevention programs for Hispanic children and youth, it is important to gain insight from the priority population for strategies to be practical and sustainable. Community-based participatory research (CBPR) has been commonly used for effective health promotion programming through joint design and implementation between health professionals and community members [18]. CBPR usually begins with a research topic of importance to the community, aims to combine knowledge with action to achieve social change for improved health outcomes, and reduces health disparities. Qualitative research techniques used in CBPR provide an effective means for obtaining an emic viewpoint about what would be acceptable for the target population, prior to the development of an intervention [19,20]. Recently, CBPR has been used to develop faith-based childhood obesity interventions for African-Americans [21,22]. Specifically, African-American children's perspectives were incorporated into designing obesity prevention strategies [21]. To date, there is a paucity of research inviting Hispanic children and youths' viewpoint for designing obesity prevention programs in faith-based community settings. The purpose of the study was to gain insight on Hispanic church-going youths' perceptions of obesity and healthy weight promotion in faith communities.

Methodology

This qualitative study was conducted between 2009 and 2011 in underserved priority zip codes identified in San Antonio, Texas, USA by the city's official public health organization. The population in these areas is approximately 80% Hispanic [23]. Study approval was obtained from The University of Texas Institutional Review Board prior to commencement. Informed Parental consent and child assent were obtained prior to data collection.

Sampling Methods and Recruitment

Churches were required to have greater than 70% Hispanic congregants to participate in the study. Sample recruitment was conducted using a purposive sampling strategy to recruit churches with varying denomination and congregation size [24]. Of 138 churches in the priority areas, invitations were mailed and follow-up calls made to 32 congregation leaders. Churches were screened to ensure inclusion criteria were met. Among the 30 eligible churches, 18 (60%) agreed to participate. Youth ages 10 to 18 years were recruited via flyers, church bulletin, announcements, and parental encouragement. One focus group per church was conducted and only one youth from each family permitted to participate. If over 12 youths signed up, the first 12 were selected from the list for participation. Participant recruitment continued within the 18 consenting churches until theme saturation was reached. The team conceded that saturation was reached at completion of the 9th focus group (9 churches).

Data Collection and Analysis

Focus groups were facilitated at individual churches after Sunday worship. Refreshments were provided for all participants. An experienced moderator and assistant, with no participant connection, facilitated focus group discussions using a semi-structured discussion guide. This flexible guide structure allows for modification, expansion and clarification during discussion as new topics unfold. The discussion included topics such as: perceptions of health, link between faith and health, health-related activities at church, and facilitators and barriers to faith-based health promotion. The discussion guide was pilot tested for age-appropriateness in youth congregants in churches unassociated with the project. Modifications to the discussion guide were made based on pilot results. Focus groups were audiotaped and lasted approximately one hour. Audio recordings were transcribed verbatim. Sociodemographic information was collected from youth participants via an anonymous questionnaire.

Patton's inductive content analysis method was used by a three-member research team to independently review each transcript and identify emerging themes [24]. The team convened to share findings and merge themes into a single coding template. Challenges that arose were deliberated and consensus was reached regarding the final coding template. Two researchers utilized the final template to code all transcripts, assisted by NVivo software (version 10.0, QSR NVivo, QSR International Pty Ltd, Doncaster et al.). Transcripts were reviewed for 90% inter-coder agreement. To enhance the trustworthiness of the data member checking, peer debriefing, and a team-analysis approach were utilized [25].

Results

The denominations of participating churches included Catholic (46%), Pentecostal (11%), Baptist (30%), and Presbyterian (13%). In total nine focus groups were conducted with a mean of 6 participants/focus group. Of the 56 youth that

participated, 56% were male and 44% were female with a mean age of 12 years old (SD 2.3). All participants, 100%, were Hispanic. Approximately 86% of participants attended church one or more times per week. **Table 1** displays participants' demographic profile.

Table 1: Participants' demographic profile (N=56).

		n	Percent (%)
Gender n=55	Male	31	56
	Female	24	44
Age (years) n=50	< 10	3	6
	10-12	26	52
	13-15	15	30
	16-18	6	12
Race/Ethnicity n=56	Hispanic	56	100
	Non-Hispanic	0	0
Church Attendance n=56	Less than once a month	2	4
	Once or twice per month	6	11
	Every Sunday	29	52
	2-4 times per week	16	28
	More than 4 times per week	3	5

Note: N=total population included in the survey; n=number of participants answered question or gave specific response; Due to missing values n will vary by category.

Five major themes emerged from focus group discussions: 1) youth definitions of perception of healthy lifestyle 3) youth perceptions of faith and health 4) plausible church interventions for family from youth perspective and 5) facilitators and barriers to healthy lifestyle programs in faith-setting. The hierarchy of extraction presented in our results is as follows: Theme, the main overarching categories emerging from discussions; subthemes, more specific concepts comprising each theme; and supporting quotations, verbatim quotations from participants displayed to substantiate each subtheme.

Theme 1: Youth's definitions of health

Youth had varying perceptions when asked to describe health, but two major subthemes arose from discussions: (a) behaviors and (b) medicine/science. A majority of youth defined health as specific behaviors such as "exercise", "sports", "eating healthy" (i.e. "more fruits" and "vegetables" (FV) and "less junk food") and "goal setting". On the other hand, other youth related health to medicine and/or science. They described health as being-related to "doctors", "diagnoses", "disease", "drug addiction", "vaccines" and "research".

Theme 2: Perceived risk factors to unhealthy weight

Youth described multiple habits that had the ability to reduce obesity-related health risks. Three main subthemes emerged for healthy lifestyle improvements: (a) healthy eating, (b) physical activity, and (c) sedentary behavior. Quotations from youth for each subtheme can be found in **Table 2**. A majority of youths described the necessity to eat healthy to improve well-being. Behaviors such as increasing FV consumption and adding variety to diet were discussed. Additionally, some participants focused more on reducing consumption of red meat, junk food (e.g. chips, candy, cake, pizza, hamburgers and hotdogs), soda, and high sodium foods. Portion control and moderation were also mentioned as components of healthy eating.

Physical activity was another subtheme related to perceptions of healthy lifestyle. Youth distinguished between exercise and physical activity. While some youth stated the need to increase exercise, others did not agree exercise was the key. Instead, they promoted youth to engage in any activity, have fun, and burn energy. Several youth also mentioned that family activities were a good choice for staying fit.

Sedentary behavior was discussed as a major source of unhealthy habits. All youth agreed that technology (e.g. television, video games, and computer) played a large role in enabling sedentary behaviors. A majority of youth described the negative impacts of technology overuse including: laziness, mindless eating, weight gain, and less time engaging in outdoor activities. Conversely, a small number of youth pointed out that technology can influence health in positive ways to improve motor and cooking skills, as well as increase physical activity via exercise videos and kinesthetic video games. Moreover, youth agreed that setting limits on video games, television viewing and computer time is the key to improve health for youth.

Table 2: Theme 2-Youth perception of healthy lifestyle.

Subthemes	Representative Quotations
Healthy Eating	"We mostly think about eating vegetables …"
	"Basically if you eat a lot of sugar, you can get diabetes."
	"[cutting back] especially like chips, and stuff like that I think that stuff has like more fat and more sodium in it."
	"Drinking water"
Physical Activity	"Basically exercise every day."
	"The difference is like you're like doing a hobby instead of just pushing up."
	"Being active is good for you and because instead of you being in the bed and lying down and all that you could be outside and playing with your friends and…burning off all that energy."
Sedentary Behavior	"I think it would make you less healthy, because you like probably just sit around and stop using energy and get really used to it and it starts to damage your brain and your eyes and everything."
	"I think video games and TV will affect your eating habits because you're too focused on the game and forget about

	eating or working out outside you just focus on the game and that's it."

Theme 3: Perceived faith and health connection

Three subthemes capture how youth describe the connection between faith and health: indirect connection, (b) direct connection, and (c) absent connection. Representative Quotations from youth are displayed in **Table 3**. Many youth describe an indirect connection between faith and health. This is conveyed by having faith in God.

Having faith in God, as explained by youth, helps relieve stress, increase happiness, and allows one to see healthy opportunities God has made available. Additionally, faith in God allows for prayers of good health, which may influence one's ability to deal with health challenges.

Furthermore, some youths described a direct, concrete, connection between faith and health. Scripture verses identify the body as God's temple, God's given foods, and the sin of gluttony. Besides scripture, the church itself has the ability to improve healthy lifestyles by implementing health-related activities. Although the majority of youth saw some connection between faith and health, a small number of participants perceived there to be no relationship between faith and health. This appeared to be related to younger participants that have had less time to explore their faith.

Table 3: Theme 3-Youth perception of faith and health.

Subthemes	Representative Quotations
Indirect Connection	"Well he [God] obviously wants us to live great lives and one aspect of a great life is to have a healthy body so I guess he [God] would care if we are gaining a lot of weight or have bad eating habits or not taking care of our bodies I guess in a way that he [God] gave to us."
Direct Connection	"… obviously he [God] does want us to be healthy because he [God] made gluttony one of the deadly sins."
Absence of Connection	"I think totally different, he [God] just wants you to be happy with what you are and what you're doing right now because if he [God] just wants you to be happy for the rest of your life whatever you are doing…so I don't really think he [God] cares about your health… that's just about my opinion."

Theme 4: Plausible church interventions for family from youth perspective

Youth describe three subthemes under which positive healthful interventions may take place in the faith setting: (a) offering healthy food options, (b) physical activity and physical activity environment, and (c) health education and health promotion. Quotes regarding these subthemes are presented in **Table 4**. A majority of youth described the need for healthy food options as a main strategy for health improvement at the church. This involves healthy substitutions during church events, meals, refreshments, and snacks for youth. Another area for improvement identified by youth is increase in physical activity. On one hand, the church should offer more group activities that encourage movement such as team sports, health competitions, walking groups, prayer walks, park field trips, and healthy community service activities (i.e. carwashes, house painting). On the other hand, the church can improve their physical activity environment by offering rolling sports sets, sport courts, obstacle courses, and updating playground equipment. Health education and health promotion was also identified by some youth as possible avenues of church intervention. This includes offering cooking demonstrations, healthy recipes, physical activity classes, guest speakers, and health fairs. These youth concluded that these events, as well as the benefits and consequences related to living a healthy lifestyle should be promoted via flyers, brochures, posters, and announcements at the pulpit.

Table 4: Theme 4-Plausible church interventions for family from youth perspective.

Subthemes	Representative Quotations
Offering Healthy Food Options	"Well, there's junk food, there's sodas, cakes, cookies and all that, like there should be more like fruit, salad, for the drinks there could be water…"
	"Yeah, because like to them the fruits and vegetables are like a good snack for them instead of the junk food and all that."
	"Yes, we can like serve some meals while we're in CCD we can like healthy foods, like when we're at CCD we can serve them just like the breakfast."
Physical Activities and Physical Activity Environment	"Yeah, like sure it's fun but like at the same time it's exercising and that the only way, you're probably gonna get people's attention by like having fun."
	"…those races, where there's like two of them and you race through obstacles."
	"Like the biggest loser something like a competition something along those lines."
Health Education and Promotion	"In the bulletins they have instead of eating this you can try this healthy alternatives."
	"Like they could go around and make like papers and stuff and put on poster board if your healthy you'll be able to do certain stuff if not you won't be able to."
	"Like in your class you can talk about healthy foods."

Theme 5: Facilitators and barriers to healthy lifestyle programs in faith setting

Some youth identified actions that may be taken to facilitate healthy changes in the faith setting such as petitions to demonstrate interest, fundraisers to offer and afford healthy options, as well as education of benefits and consequences to living a healthy lifestyle. Additionally, other youth mentioned the importance of role modeling and social support from parents, church leaders, and peers as key enablers of improving congregants' health.

On the contrary, youth identified several barriers to implementing wellness programs at church. Several youth mentioned the lack of resources (e.g. money, time, and transportation) needed to facilitate healthy changes. Other youth revealed that culture may play a role in hindering health

programming in regards to parental priorities, lack of commitment to change, and the need for changes to be gradual. Danger in the surrounding neighborhood was also identified as a barrier. Quotations from youth identifying facilitators and barriers can be found in **Table 5**.

Table 5: Theme 5-Facilitators and barriers to healthy lifestyle programs in faith-setting.

Subthemes	Representative Quotation
Facilitators	"Yes of course because you are not doing it by yourself but in a group and puts less pressure on you and everyone is helpful."
	"I think if people don't have the resources to go and do it by themselves and a central place like a church providing it there."
	"Set the example…I tried it once where I was eating carrots and they actually asked if they can have some. Little kids like around eight years old try to imitate what older people do."
Barriers	"Well, it would be hard because our culture already so used to grease and stuff and if we do without it, it wouldn't be the same."
	"Slowly trying to progress it where it's a change instead of automatically doing it. Some people might be mad or offended…"
	"Danger is around here."
	"Money."

Discussions

This is the first study where insight on a direct and indirect connection between faith and health from Hispanic youths' perspective is observed. Youth perceive the church to have the ability to offer social and instrumental support for healthy lifestyle changes. Faith-based childhood obesity prevention programming should consider integrating health promotion with religious education, promoting healthy church environment and policy, and offering culturally relevant health promotion activities that engage the immediate and extended families.

Findings from the current study indicate that spiritually oriented health education is an acceptable option for childhood obesity prevention in church setting. It is encouraging that youth viewed the linkage between faith and health. More importantly, youth affirmed that one's body is God's Temple and the importance and guidance for maintaining a spiritually and physically healthy Temple is delivered through scripture. Minor suggests that Sunday school is an existing ministry in many denominations that could provide opportunity for obesity prevention activities [26]. A qualitative study in African American churches suggested that church leaders are willing to occasionally replace Sunday School Curriculum with health education lessons; however, these church leaders voiced this with reservations regarding interruption of spiritual education, which is the mission of the church [21]. He et al. revealed that Hispanic church leaders call for integration of spiritual and physical health when health promotion is taking place in a faith-based setting [15]. To this end, a spiritually oriented Sunday school curriculum would be a natural fit and sustainable in faith-settings. It is worth noting the variety of denominations among the Hispanic faith community. Healthy Sunday school curriculum development should include the option for tailoring curriculums to fit the rituals of different denominations. In addition, Vacation Bible School, a one-week long summer program, is common in many denominations across the United States. This could offer another opportunity for implementing a spiritually oriented health curriculum.

To be an effective obesity prevention program, it should go beyond health education. In the current study, youth are knowledgeable about what a healthy lifestyle entails and call for healthy food options and physical activity opportunities to displace their current sedentary behaviors. For future health program planning in faith-based communities, a focus on church health environmental and policy changes should be at the forefront, as implied by this study. A recent study indicated that faith organizations have unique resources and human capital that can be key partners in childhood obesity prevention [27]. The authors recommended that program planners assess church resources prior to planning interventions to ensure efforts are relevant and beneficial for faith organizations [27]. In a church context, breakfast, snacks, and church gatherings are often filled with unhealthy beverage and food options. These provide opportunities for improvement in church environment through policy change to be in alignment with healthy objectives. For example, healthy changes to policy and environment may include: no soda, healthy substitutions, low-fat options, healthy snacks (e.g. fruits, vegetables, and whole grains), access to physical activity facilities, marked courts, walking trails, safe playgrounds, and a community garden. These environmental and policy changes will be more sustainable and remain in the community beyond any specific health program [28]. Indeed, a recent pilot study used policy, systems, and environmental (PSE) change approaches for childhood obesity prevention in churches and found that early changes were usually environmental changes, while mid and later changes focused more on policy and systems changes [29]. Furthermore, it may also be strategic to incorporate funding in grant budgets in order to empower faith organizations to act on findings from the environmental/policy assessment process [29].

To further facilitate healthy behavior changes, youth call for fun physical activities and healthy role modeling. As indicated in the current study, church is a natural fit for providing health promotion activities, especially for those with limited access to recreational opportunities. Davis et al. also found that church members view church as a good setting to provide health promotion activities, as congregants are viewed as an extended family with obligation and responsibility [21]. For future program planning, physical activities at church need to be fun and entertaining as indicated by this study's participants. In addition, program planners should provide group activities that utilize a supportive setting to encourage individual child participation, since children come in all sizes. When implementing a program such as this role modeling will be important. As indicated by this study, church leaders and peers will serve as models for youth to develop sustainable health

behaviors. Such health promotion activities can be a part of the youth ministry.

Family-involvement is also a crucial part of childhood obesity prevention programming. Participants in the current study suggest the need for churches to educate their family. Research suggests, communication through church can reach a large audience and often in a positive way [21].The means of communication to reach families and all congregants to promote healthy lifestyle could include church bulletin inserts, posters, and classes, as suggested by our participants. Promoting health messages from the pulpit may also be appropriate and effective in church setting. For health messaging, health programming needs to be mindful of cultural relevance. It has been indicated that culture plays a large role in health promotion [30]. When we communicate this information to families we need to do so in a way that is culturally appropriate. For example, if a program is attempting to educate Hispanic families on healthy eating, emphasis for food substitutions should be culturally relevant to Hispanic food practice. Additionally, our study indicates that for low-income communities, programs promoting healthy eating practices should incorporate promoting healthy options on a budget. Ongoing communication and healthy role modeling in conjunction with church health environmental and policy changes can eventually lead to adoption of healthy lifestyle as a social norm in Hispanic faith-settings.

Study Limitations

The strength of this study is centered in the qualitative nature of its data collection approach, which acquired rich information about the priority population's viewpoints with respect to obesity prevention strategies that they see as feasible and beneficial. Nevertheless, a few limitations were associated with this study. First, although a purposeful sampling strategy was used, like other qualitative studies of this nature, participants may have had parental encouragement to participate in a study their parents had an interest in. However, generalizability beyond the priority population is not the purpose of this qualitative study. Second, social desirability may have influenced participant responses. Third, focus groups participants were from the same congregation, known vocal congregants tended to dominate conversations and in some instances, girls were less vocal. This may be due to participant's interaction with each other on a regular basis in the church, or may be culturally related. To limit this exchange, efforts were made by facilitators to encourage participation from every individual. Lastly, while differences may exist (e.g. terminology differences between Sunday school in reformed churches and Confraternity of Christian Doctrine (CCD) in catholic churches) among focus groups conducted with individuals of different denominations, current sample size did not allow for comparison of church-going youths' views between denominations.

Conclusions

In conclusion, church is a promising setting for health promotion programming. Healthy Sunday school curriculum and church health environmental and policy changes, along with culturally appropriate, family-oriented health education and activities are potential strategies for childhood obesity prevention in Hispanic faith-community settings.

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Conflict of Interest

The authors have no conflicts of interest to declare.

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