

FAITH BASED HEALTH MINISTRY: An Analysis of Faith-Based Health Screenings Impact on Cardiovascular Risk Factors



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Abstract

The purpose was to explore the impact of faith-based health ministry in the reduction of cardiovascular risk factors. Two African American churches' health ministry provide cardiovascular screenings for the community. The screenings consist of height, weight, waist circumference, Body Mass Index (BMI) calculation, blood pressure, blood sugar, and cholesterol levels and one-on-one exit counseling by a registered nurse to discuss values. Participants received a copy of the values and a copy was maintained by the ministry. As future screenings were conducted, returning participants' files were updated with current values. A total of 77 participants age 18 and older were screened. A total of 58 participants returned for two or more screenings. In a retrospective study, the pre-existing data was analyzed. Variables of blood pressure, glucose, and cholesterol levels were transformed into dichotomous variables with yes/no for high blood pressure, diabetes, and high cholesterol. There was not a significant interaction for blood pressure and cholesterol, there was a significant interaction between glucose levels and diabetes ($p=.029$). The analysis demonstrates a direct correlation with glucose levels and diabetes. More research is needed to evaluate the impact on the reduction of cardiovascular risk factors with a longitudinal study of faith-based health screenings.

Theoretical Framework

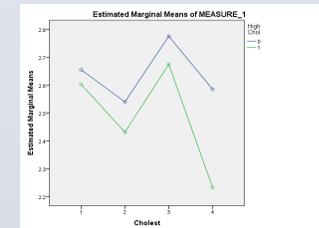
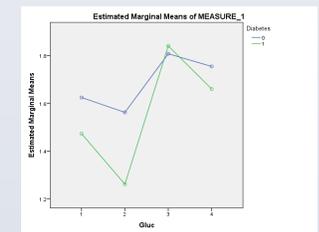
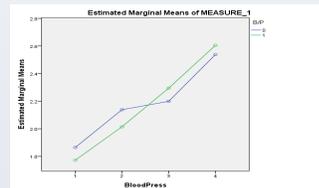
Pender's Health Promotion Model
The Social Learning Theory

Methodology

- This study consisted of data from two African American churches in a southern state with established faith-based health ministry since 2010.
- The investigator intends to analyze data collected during various screenings from 2010 to 2013.
- A formal request was provided to the pastor and health ministry coordinator
- IRB approval was obtained. No human blood sampling was conducted as the data is already collected.
- All consenting participants screened are age 18 or older.
- Each person has the option to participate screening activities: height and weight, Body Mass Index (BMI), waist circumference, blood pressure, blood sugar, cholesterol levels, and health education information was provided by a registered nurse during a one-on-one exit counseling session.
- Participants was provided with a copy of values at each screening and a copy is maintained by the health ministry.
- As future screenings are conducted, those returning participants files are updated with current demographic information, blood pressure, blood sugars, cholesterol levels, and BMI's.

Analysis

- The research design was a retrospective study design. The pre-existing data was evaluated for inconsistencies and outliers prior to conducting the statistic analysis utilizing SPSS Statistical Software Package 20.
- Statistical tests are repeated measures ANOVA and Pearson Correlation using a 0.5 level of significance.
- The analysis of data collected answered the PICOT question "Do faith base health screenings impact the reduction of cardiovascular risk factors".
- Missing values were replaced with the linear trend function.
- The Assumptions of Repeated-Measures Factorial ANOVA are normality of residuals and homogeneity of variance. The assumption for normality of residual was met. Homogeneity of variance was not violated with a p value less than .001 ($p<.001$). There was also no violation of the assumption of sphericity.



Discussion

- The results indicate a positive impact from participation in faith-based health screenings in regards to the reduction of cardiovascular risk factors.
- This information gives support to the research question of participation in the faith based health screenings.
- The significant interaction between the glucose and diabetes suggests the control of blood sugars can decrease the risk of cardiovascular complications associated with diabetes.
- More research and data is needed to gauge the level of impact, however any improvements in health that can help reduce cardiovascular risk factors are worth the effort.

Limitations

- Small sample size and limited to one ethnicity
- Inconsistent data collection, documentation of data, and unavailability of data concerning participation in other aspects of health ministry (exit counseling, relevant education materials, meetings, etc.).
- The designated measurements, blood pressure readings, and blood sample levels were missing at some of the screenings because the participation at each station was voluntary.
- The measurements of weight, height, BMI, and waist circumference were not included in the analysis because the data collection was inconsistent and did not lend themselves to an accurate assessment of change in these measures as it related to the research questions.

Implications to Nursing Practice

- Incorporates a person's faith and values with their health.
- Use of a faith-based health ministry strengthens the Health Ministry Association's work with ANCC to recognize faith community nursing as a practice specialty (ANA/HMA, 2012).
- Provide access to care for the uninsured/underinsured population, and provide health promotions.
- Provide an entry point of access care to other services provided by providers through medical care partnerships, resources, and referrals.
- Efforts correlates with goals and objectives set forth in *Healthy People 2020*.

Future Research

- The continued study of faith-based health screenings and its impact on other health related issues to improve health disparities and improve the health determinants of the population.
- The potential to focus on a more longitudinal study of faith-based health screenings and their impact on cardiovascular health

Conclusions

The church is known as a place of healing, social gatherings, and a gateway for health promotions. Through faith based health ministry programs, the incorporation of prayer, scripture, and hymns, and education cardiovascular risk factors can be reduced. The finding of this study concurs with Frank & Grubbs's (2008) conclusion of there is a need for continued involvement of health professionals and churches to increase knowledge and decrease risk for diabetes, cardiovascular disease, and cardiovascular accidents.

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