Journal of Engineering Applied Science and Humanities
Publisher: Sunyani Technical University
Editor-In-Chief: Professor Kwadwo Adinkrah-Appiah

ISSN: 2773-8418 (O), ISSN: 2773-8426 (P)
Volume 8, Number 01, pp. 85-89
DOI:10.53075/Ijmsirq/6577647546

Relationship between Religion and Health-Seeking Belief Outcomes in the Sunyani Municipality

Gordon Adomah

Catholic Diocese of Sunyani Box 450 Sunyani, Ghana
Corresponding author: Gordon Adomah, E-mail address: gordonadomah@gmail.com

Date received: November 11, 2022 Date published: January 27, 2023

Abstract: The leading causes of morbidity and mortality in Ghana include diseases such as malaria, lower respiratory tract infections, stroke, cardiovascular diseases, and diarrhoea diseases. Making quality and affordable healthcare accessible to the people ensures that people are protected from healthcare-related harm. However, many will still opt for faith healing despite the availability of proper medical attention. This study's primary objective is to examine the Relationship between Religion and Health-Seeking Belief Outcomes in the Sunyani Municipality. The study's goals were met by using a cross-sectional research approach. The study also employed a mixed-method approach, which involved the use of both qualitative and quantitative data gathering techniques. The present study viewed religion and spirituality as a multidimensional component and quantified it using a novel measure of religion and spirituality for research on health outcomes. A Mann-Whitney U test was used to determine if there was a difference in the health-seeking Behaviour between men and women study participants. The mean ranks for men and women were 45.23 and 52.39 respectively. The test results revealed that there was no statistically significant difference in the health-seeking behaviour of the older adult participants depending upon their gender, i.e. men and women (U=931.5, n1=66, n2=33, p=0.24).The findings of the study suggest that the inclusion of religious faith did have a significant impact on the lifestyle choices of those who practised them. It was discovered throughout the interviews that a person's religious affiliation affected many other parts of their lives, not only their health decisions. Diet, sanitation, cleanliness, modesty, clothing and grooming, family planning, blood transfusion, organ transplantation, pregnancy, care of the dying, burial, post-mortems, and festivities/celebrations were among these consequences, but they weren't restricted.

Keywords: Religion, faith healing, health-seeking belief, Sunyani Municipality, Ghana

1. INTRODUCTION

Religious or faith healing has been an age-old alternative for the many infirmed with a variety of medical conditions. Many have given their consent to the prayerful treatment offered to them by the men of God (Munz, Jansen, & Böhmig, 2019). There have been several accounts given by people who testified to the quality of the prayerful healing and the ability of spiritual men to diagnose what educated doctors could not diagnose (Simão et al., 2016). Several healthcare services exist, such as hospitals, clinics, pharmacies or drug stores, traditional healers, and self-medication, among others.

Several studies demonstrate that the decision to engage with a particular medical channel is influenced by a variety of factors such as socioeconomic status, sex, age, social status, the type of illness, access to services, and perceived quality of the service (Latunji & Akinyemi,

2018). Ghana has made major steps in improving access to health services. The health insurance scheme has ensured that anyone regardless of their financial situation can have access to health care at government-subsidized fees (Kelly, & James, 2021). However, different reasons may inform patients' choice of healthcare service. Other studies have shown such factors that influence health-seeking behaviour as cost or affordability (Boachie, 2015), distribution of healthcare services (Buor, 2002), and religious and cultural factors (Obidiya et al, 2011). According to Arias, Taylor, Ofori-Atta & Bradley (2016), many Ghanaians rely on traditional and faith healing because of their easy accessibility to their availability on television and radio. Everyday people are seen given testimonies from these prayer camps where very sick people have gotten healed. Whiles some researchers and organisations believe that making healthcare resources accessible and available improves healthcare-seeking behaviour, not much research has explored the religious influence on patients seeking healthcare, especially in the Sunyani Municipality. Therefore, there is a need to be more understanding of the choices of healthcare services made by different religious affiliations in the Sunyani Municipality. Also, the reasons for seeking health at the faith healing centres than the hospitals need to be identified within the Sunyani municipality. It is therefore in this regard that this research seeks to address the gap in the literature by considering among other things the healthcare choices made by adults and the factors that influence these choices, taking into consideration the religious affiliation differences.

While much research has been done on the determinants of health-seeking behaviour, most researchers have limited their work to specific health outcomes such as maternal and child health, and on specific health-seeking behaviours such as self-medication or traditional/herbal medicine. Many lives are being lost in preventable death scenarios as the sick ones preferred faith healing over medical health applications. Many have worsened their condition due to the delays caused at the faith healing centres and by the time they have reached the hospital, it is too late for any treatment to be administered. This has caused an increase in the mortality rate in our societies. Understanding the healthcare behaviour of the population will help in achieving two main objectives in the course of ensuring that the proper health needs of the population are met and this research seeks to do that.

This current research work is intended to examine the influence of religion as a determinant of health-seeking behaviour in the Sunyani Municipality and provide information to health care professionals at the various health services in the Sunyani Municipality for operative policies to be made. It also add to the existing knowledge on health seeking behaviour with the religious denomination.

2. MATERIALS AND METHODS

Demographic Characteristics of Respondents

The demographic characteristics in this study include age, gender, Citizenship, Place of interview, Employment status, Marital Status, and Level of education. The estimated number of interviewees was 385. All qualitative and quantitative analyses of the survey data may be summed up to this total. Many individuals were hesitant to participate, permission was withdrawn days after being given, and some questions were avoided, all of which led to differences between the theoretical framework and the actual fieldwork. The differences can be seen when you add up the numbers for the different kinds of questions. The results from the analysis revealed that age group and health insurance status were the only independent demographic predictors of seeking care at government health facilities. As supported by the findings in research question two, respondents from older age groups reported seeking care from government health facilities more often compared to those from younger age groups. Again, this may be attributed to greater health care needs among older respondents due to the higher prevalence of chronic conditions among these groups of individuals for whom chronic long-term care at mainstream health facilities (government health facilities included) is the mainstay of treatment. The findings that the older age group predicts care from government health facilities agree with the findings of Grimsmo and Siem (1984), whose study uncovered increased age as a predictor of regular primary care and was tied to a higher prevalence of chronic disorders among the older

age groups.

Study Design and Type

A cross-sectional research design was used in the study to achieve its objectives. This study design was selected due to the following reasons. Firstly, in the collection of data by a cross-sectional design, it makes it possible for more than one case within a single point in time in connection to two or more variables (Bryman, 2012). Also, the researcher does not interfere with or manipulate the study environment with a cross-sectional design (Morse, 1991). The cross-sectional design helps in the examination of relationships between variables and makes finer distinctions between cases. The study used a mixed-method strategy where both qualitative and quantitative methods of data collection were used.

Qualitative method

This method serves the primary purpose of collecting textual data for research and analysis. The collected research data is used to examine social norms and contextual or cultural practices demeaning people or impacting a cause. The qualitative data is textual or non-numerical. Data at hand leads to a smooth process ensuring all the decisions made are for the betterment of the research objectives. With qualitative data, the researcher will be able to make informed decisions, with the relevant data collected. With quality data, the researcher will be able to improve the quality of decision-making and also enhance the quality of the expected results.

Qualitative data collection methods are exploratory, and they are usually more focused on gaining insights and understanding the underlying reasons by digging deeper. It makes use of individual face-to-face interviews. The interview questions were designed to have a specific structure and purpose. They were also presented in a manner that would elicit the interviewee's knowledge or perspective related to the research objective. It touched on their understanding, individual beliefs, values, feelings, experiences, and perspectives of the research objective. The researcher didn't want a structured fixed response from the respondents so open-ended questions were asked. That prevented having a biased discussion. In that way, the respondents did not feel their freedom to express themselves have been stifled or narrowed down by our way or style of thinking. The individual interview was an ideal qualitative data collection method, particularly because highly personalized information from the participants was required. And further probed follow-up questions were asked to gain more insights.

Quantitative Method

Quantitative research measures attitudes, behaviours, opinions, and other variables to support or reject a premise. This is done by collecting numerical data, which is easily quantifiable to identify "statistical significance". To get this "Numerical data" close-ended questions were used in an online questionnaire. Likert scales and multiple-choice question types were used. It is also used for the specification of models and to establish correlations between different variables (Castro, Kellison, Boyd, & Kopak, 2010). Although quantitative data cannot be quantified, measuring it or analysing it might become an issue.

Data collection

During the data collection, two researchers were assistants who both have backgrounds in engineering with a considerable knowledge base and experience in research. Having such capable assistants makes it ideal and easy for data collection as they have been made resilient through tough calculations in their courses of study. They went in person to the selected communities to conduct face-to-face interviews using audio recordings with the citizens and made real-time observations and documented their responses in handwritten notes. The recommendations made by the responses were later transcribed into a word document.

Sampling Technique and Sample Size

The purposive sampling technique was used to select four communities within Sunyani Municipality, Bono Region. The administration of the questionnaire was done by using the convenience sampling method. This convenience sampling is used by researchers to collect research data from a conveniently available pool of respondents (people at the faith healing centres and hospitals). It was used due to its credibility, uncomplicated and economical nature. Also, members as respondents are readily approachable to be part of the study sample. In many cases, potential respondents are

readily approachable to be a part of the sample.

Data Analysis

The data collected was processed using a spreadsheet package (Microsoft Excel) and then imported into a statistics software package (SPSS software). Descriptive statistics, such as frequencies, proportions and logistic regression analysis, were used as a means of data representation.

3. RESULTS

Demographic Characteristics

The response rate for the study was 41%. The researcher observed some respondents could not return or answer the questionnaire because it bothers on faith. People very reserved with regards to their faith believe and sometimes finds it difficult sharing them. The total sample size for the study is 159.

Table 1: Demographic Characteristics of Respondents

VARIABLE	CATEGORY	(F)	(%)
Gender	Male	97	61.0
	Female	62	39.0
Age	18-30	88	55.0
	31-40	41	25.0
	41-50	18	11.0
	50+	12	8.0
Citizenship	Ghanaian	154	97.0
	Non-Ghanaian	5	3.0
Place of interview	Abesim	38	24.0
	Sunyani	77	48.4
	Nwanwasua	15	9.4
	Kotokrom	29	18.2
Employment status	Working	68	43.0
	Retired	5	3.0
	Unemployed	86	54.0
Marital Status	Single	94	59.1
	Married	52	32.7
	Divorced	6	3.7
	Widowed	4	2.5
	Separated	2	1.3
	Cohabiting	1	0.6
Level of education	No formal education	5	3.1
	Primary	2	1.3
	Middle/JHS	6	3.7
	Secondary	22	13.8
	Vocational/Technical	30	18.8
	Tertiary	94	59.1

Source: Fieldwork, 2022

From Table 1 above a total of 159 people chose to disclose their gender identity. 97(61%) were males and 62(39%) were females. With regards to the age disparities of respondents, 88(55%) of them fell within the ages of 18-30years, 41(25.0%) were 31-40years 18 people made up

11% who were in the ages of 41-50years while the remaining 13(8%) were above 50years. The results show that, 68(43%) of them had active work while 86(54%) were unemployed and 3% had no jobs. Many of them were very learned as we had a tertiary level of education having the highest number of respondents 94(59.1%). A third of that number 30(18.8%) had acquired technical/vocational education and the remaining had some primary to tertiary level education. Only 5 (3.1%) respondents had no formal education. This gave confidence that there were people who had some basic reading and understanding skills. In this way, they could read the questionnaires on their own and answer the questions without the need of an interpreter as the document was prepared fully in English with no section featuring the use of the local dialect.

Table 2: Models for Multiple Linear Regression to analyse the relationship between religion, health-seeking behaviour and the five dimensions of wellness in the Sunyani Municipality

Variables	Model 1	Model 2	Model 3
Dependent Variable	Religion and Health-seeking behaviour	Religion and Health-seeking behaviour	Religion and Health-seeking behaviour
Independent Variables	Physical Function Fall Risk Resilience Social Wellbeing Spiritual Wellbeing	Physical Function Fall Risk Resilience Social Wellbeing Spiritual Wellbeing Awareness of Community support Services	Awareness of Community support Services
Adjusted R^2 Value	R^2=.02,F=.54,p=0.75	R^2=.17,F=4.34,p=0.01	R^2=.15,F=18.03,p=0.00

Source: Fieldwork, 2022

Model 1

In Model 1, the relationship was assessed between health-seeking behaviour and the five dimensions of wellness. The model explained -0.2 % of the variance in the dependent variable (R2 =-.02, F=.54, p=0.75). No significant relationship was found between scores on health-seeking behaviour and scores of physical functions (β=-.0.12, p =0.34), fall risk (β=.0.07, p=0.34), resilience (β=0.09, p=0.50), social wellbeing (β=0.04, p=0.94), or spiritual wellbeing (β=-0.03, p=0.84).

Model 2

In Model 2, the relationship was assessed between health-seeking behaviour and the five dimensions of wellness, i.e., physical function, fall risk, resilience, social wellbeing, spiritual wellbeing, and awareness of community support services. The model explained approximately 17% of the variance in the dependent variable (R 2 =.17, F=4.34, p=0.01). Awareness of community support services (β=0.46, p=0.00) was the only independent variable found to have a significant positive relationship with the health-seeking behaviour score. No significant relationship was found between health-seeking behaviour and physical function (β=-0.10, p=0.38), fall risk (β=0.16, p=0.19), resilience (β=0.17, p=0.16), social wellbeing (β=.0.01, p=0.94), or spiritual wellbeing (β=0.02, p=0.83).

Model 3

In Model 3, the stepwise method was utilized, and the non-significant independent variables were removed. Model 3 depicted that awareness of community support services (β =0.40, p=0.00) had a significant positive relationship with health-seeking behaviour, accounting for approximately 15% of the variance (R 2 =.15, F=18.02, p=0.00). The regression model estimated a 0.32 increase in health-seeking behaviour score for every unit increase in awareness of community support services. A higher awareness of community support services indicates greater health-seeking behaviour.

4. DISCUSSION

A Mann-Whitney U test was used to determine if there was a difference in the health-seeking Behaviour between men and women study participants. The mean ranks for men and women were 45.23 and 52.39 respectively. The test results revealed that there was no statistically significant difference in the health-seeking behaviour of the older adult participants depending upon their gender, i.e. men and women (U=931.5, n1=66, n2=33, p=0.24).

Perceived susceptibility to illness was found to be significantly positively correlated with seeking care from government and private health facilities, self-medication with herbal drugs and faith healing, despite the small coefficients. Outside of the significance in correlations being possibly due to large sample size effects, it is likely those who perceive themselves to be susceptible to illness, in general, may feel the need to take prophylactic measures against illnesses through faith healing, self-medication with herbal drugs that tend to have a reputation for being safe and effective against a wide range of medical problems among Ghanaians, as well as resorting to seeking care from mainstream facilities (government and private health facilities) for both treatment and preventive purposes.

The findings of this study agree with that of (Chatters, 2000, Williams, 1994, Larson et al, 1986). The results of the correlation analysis in the Relationship between Religion and Health-Seeking Belief Outcomes in the Sunyani Municipality. The study revealed that significant, linear and positive correlations exist between each health-seeking behaviour and its respective perceived benefits and cues to action. In simple terms, this means that individuals, who believe there are specific benefits to derive from using a particular option of care, and who receive external cues from family members and friends toward that option of care, are more likely to engage that option as the first point of call during ill-health. This also means that intervention programs toward improved health-seeking behaviours may be targeted at modifying the perceived benefits of health-seeking options deemed unsupportive of health, in favour of those supported by sound scientific evidence and research.

Based on the findings, the review suggests the necessity to coach medical employees by strengthening the network and providing dialogues specializing in health-related advantages of seeking modern health services, particularly on physical and mental health, morality, and fashion. There ought to even be stress on education, coaching, and communication to boost understanding among doctors and patients' right to better health. Thus, understanding these dimensions of religion and spirituality can help build collaborations by providing holistic healthcare to practitioners of all spiritual faith.

5. CONCLUSION

The findings of this review clearly show that spiritual beliefs, spirituality, church teachings, and doctrines influence health service utilization among members of varied religions in Sunyani municipality. The research reviewed showed that spiritual members tend to own each positive and negative consequence that impacts health outcomes, has an effect on the danger of diseases, and influences response to seeking health services (Glei et al., 2003, Reeve, 2009 and Gyimah et al. 2006). Religious/spiritual beliefs and practices are normally utilized by both medical and psychiatric patients to deal with illness and stressful life changes. A large volume of analysis shows that more spiritual individuals who have higher psychological states more quickly have health issues compared to people with less spirituality potential advantages to psychological state and well-being have physiological consequences that impact physical health, have an effect on illness, and influence response to treatment. These reports are printed in peer-reviewed journals in medication, nursing, social service, rehabilitation, social sciences, counselling, psychology, psychiatry, public health, demography, economics, and faith. The majority of studies report significant relationships between religion and better health. The research findings, a need to produce high-quality care, and easy logic, underscore the necessity to integrate spirituality into patient care. The field of religion, spirituality, and health is growing rapidly, and that I dare to mention, is moving from the periphery into the mainstream of healthcare. All health professionals ought to be acquainted with the research base described in this paper, apprehend the explanations for

integrating spirituality into patient care, and be able to do this wisely and sensitively. At stake is the health and well-being of our patients and satisfy faction that health care suppliers experience in delivering care that addresses the total person body, mind, and spirit.

6. ACKNOWLEDGEMENT

My sincere thanks to God for whose strength I have been to accomplish this research which I hope will be of help to our contemporary living. My sincere appreciation goes to Rev. Fr. Prof. Peter Nkrumah Amponsah, for his indefatigable effort in guiding me to come out with this work. I also wish to express my appreciation to Mr. Michael Yeboah, Mrs. Benedicta Aganiba Atulbiri and Mrs. Gloria Baffour for their candid guidance and suggestions, which made this work better. I am grateful to all the participants who voluntarily opened their hearts and minds to me during the data collection.

7. REFERENCES

Alosaimi, F. D., Alshehri, Y., Alfraih, I., Alghamdi, A., Aldahash, S., Alkhuzayem, H., Al-Beeshi, H.. (2015). *Psychosocial correlates of using faith healing services in Riyadh, Saudi Arabia: a comparative cross-sectional study*. Intern J Mental Health Syst. 2015; 9:8.

Aryeetey, R, Ansong, J (2011) *Overweight and hypertension among college of health Sciences employees in Ghana.* Africa Journal of Food, Agriculture and Nutrition and Development 11(6): 5444-5456.

Awoke, M. A., Negin, J., Moller, J., Farell, P., Yawson, A. E., Biritwum, R. B., and Kowal, P. (2017). *Predictors of public and private healthcare utilization and associated health system responsiveness among older adults in Ghana*. Global Health Action, 10(1). https://doi.org/10.1080/16549716.2017.1301723

Benjamins, M. R, Ellison, C. G., Krause N. M., Marcum, J. P. (2015) *Religion and preventive service use: do congregational support and religious beliefs explain the relationship between attendance and utilization?* Journal of Behavioral Medicine. 2015; 34(6):462–476. DOI: 10.1007/s10865-011-9318-8 [PubMed: 21286800]

Cohen, S. (2009). *Basic psychometrics for the ISEL 12 item scale. 2009. Retrieved June 12, 2010*. Retrieved from http://www.psy.cmu.edu/~scohen

Campbell, J. D, Yoon, D. P., Johnstone, B. (2014). Determining relationships between physical health and spiritual experience, religious practices, and congregational support in a heterogeneous medical sample. Journal of Religion and Health. 2014; 49(1):3–17. DOI: 10.1007/s10943-008-9227-5 [PubMed: 20162451]

Chatters, L. M., Taylor, R. J., Woodward A. T., Nicklett, E. J. (2015). *Social support from church and family members and depressive symptoms among older African Americans.* American Journal of Geriatric Psychiatry. 2015; 23(6):559–567. DOI: 10.1016/j.jagp.2014.04.008 [PubMed: 24862679

Cummings, J. P., & Pargament, K. I. (2010). *Medicine for the spirit: Religious coping individuals with medical conditions.* Religions, 1(1), 28–53.

Debnam, K., Holt, C. L., Clark, E. M., Roth, D. L, Southward, P. (2015*). Relationship between religious social support and general social support with health behaviours in a national sample of African Americans*. Journal of Behavioral Medicine. 2015; 35(2):179–189. DOI: 10.1007/s10865-011-9338-4 [PubMed: 21487724]

DUHL, L. (2001). *Handbook of religion and health. Journal of Epidemiology & Community Health*, 55(9), 688–688. https://doi.org/10.1136/jech.55.9.688

Elifson, K. W., Klein, H., & Sterk, C. E. (2006). *Predictors of sexual risk-taking among new drug users. Journal of Sex Research,* 43(4), 318–327. doi:10.1080/00224490609552331 PMID:17599253

Ellison C. G. (1999) *Race, religious involvement, and depressive symptomatology in the southeastern U.S.* community. Soc Sci Med. 1995; 40:1561–72.

Ejike, C. E., Ugwu, C. E., & Ezeanyika, L. U. (2010). *Variations in the prevalence of point (pre) hypertension in a Nigerian school-going adolescent population*

living in a semi-urban and an urban area. BMC pediatrics, *10*(1), 1-7.

Grimm, P. (2010). *Social desirability bias. Wiley international encyclopedia of marketing. Heaney CA, Israel BA. Social networks and social support in health education.* In: Glanz K, Lewis FM, Rimer BK, editors. Health Behavior and Health Education: Theory Research and Practice. San Francisco, Calif: Jossey-Bass; 2010.

Holt, C. L., Le D, Calvanelli, J., Huang, J., Clark, E., Roth, D. L., (2015). *Participant retention in a longitudinal national telephone survey of African American men and women. Ethnicity and Disease*. 2015; 25(1):187–192. [PubMed: 26118147]

Israel, B. A., Schulz, A. J., Parker, E. A., Becker, A. B. (1998). *Key principles of community-based research. Annu Rev Public Health*. 1998; 19:173–202.

Krause, N., Ellison, C. G., Shaw, B. A., Marcum, J. P., Boardman, J. D. (2017*). Church-based social support and religious coping. Journal for the Scientific Study of Religion*. 2017; 40(4):637–656.

Kanu M., Baker, E., Brownson, R. C. (2018). *Exploring associations between church-based social support and physical activity*. Journal of Physical Activity and Health. 2018; 5(4):504–515. [PubMed: 18648116]

Levin J. S., Chatters L. M., Ellison C. G., Taylor R. J. (1996). Religious involvement, health outcomes, and public health practice. Curr Issues Public Health. 1996; 2:220–5.

Levin J. S., Chatters L. M. (1998*). Research on religion and mental health: an overview of empirical findings and theoretical issues*. In: Koenig HV, editor. Handbook of Religion and Mental Health. San Diego, Calif: Academic Press; 1998.

Le D., Holt, C. L., Hosack DP, Huang J, Clark EM. (2016). *Religious Participation is Associated with Increases in Religious Social Support in a National Longitudinal Study of African Americans.* Journal of Religion and Health. 2016; 55(4):1449–1460. DOI: 10.1007/s10943-015-0143-1 [PubMed: 26493343]

Ministry of Health. (2014). *Ministry of Health Ghana Holistic Assessment of the Health Sector Programme of Work 2014*.

Obidiya, O. S., Chima, I. E., Ekadi, T. S., and Ilodigwe, E. E. (2011*). Health-seeking behaviour among adult residents of Yenagoa city, Nigeria.* Continental J Pharm Sci, 5(2), 14.

Oman, D. & Thorensen, C.E. (2002). *Does Religion Cause Health? Differing Interpretation and Diverse Meanings. Journal of Health Psychology*, 7: 365-380.

Pargament, K. (1997). The Psychology of Religion and Coping: Theory, Research, and Practice. New York: The Guilford Press. P288-291.

Peprah P, Razak M. G. M, Prince Osei-Wusu P. A, Agyemang-Duah W. Mawuli E. A and Amon K. J. (2018). *Religion and Health: exploration of attitudes and health perceptions of faith healing users in urban Ghana*. Peprah et al. BMC Public Health (2018) 18:1358 https://doi.org/10.1186/s12889-018-6277-9.

Parker EA, Schulz AJ, Israel BA, Hollis R. Detroit's East Side Village Health Worker Partnership: community-based health advisor intervention in an urban area. Health Educ Behav. 1998; 25:24–45.

Roth, D. L., Usher, T., Clark, E. M., Holt, C. L. (2016). Religious Involvement and Health Over Time: Predictive Effects in a National Sample of African Americans. Journal for the Scientific Study of Religion. 2016; 55(2):417–424. DOI: 10.1111/jssr.12269 [PubMed: 28502992]

Simão, T., Caldeira, S., & de Carvalho, E. (2016). The Effect of Prayer on Patients' Health: Systematic Literature Review. *Religions*, *7*(1), 11. https://doi.org/10.3390/rel7010011

Seyum, B., Mebrahtu, G., Usman, A., Mufunda, J., Tewolde, B., Haile, S., ... & Negassi, E. (2010). *Profile of patients with diabetes in Eritrea: results of first phase registry analyses. Acta diabetologica*, *47*(1), 23-27.

Watson, D. W., Bisesi, L., Tanamly, S., Sim, T.,

Branch, C. A., & Williams, E. III. (2003). *The Role of Small and Medium-sized African-American Churches in Promoting Healthy Lifestyles.* Journal of Religion and Health, 42(3), 1911–200. doi:10.1023/A:1024835500987

Williams D. R. (1998). The measurement of religion in epidemiologic studies: problems and prospects. In: Taylor R. J., Chatters LM. Church members as a source of informal social support. Rev Relig Res. 1988;30: 193–203.

WHO (2016). Constitution of the World Health Organization. Geneva, World Health Organization.

Zimmet, P. Z., Magliano, D. J., Herman, W. H., & Shaw, J. E. (2014). *Diabetes: a 21st century challenge. The lancet Diabetes & endocrinology, 2(1),* 56-64