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The Moderating Role of Stress on the Relationship between Religiosity and Mental Health among Women in Ghana

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Abstract:
This study examined the influence of religiosity on the mental health and whether stress moderated the relationship between religiosity and mental health. In a cross-sectional survey design,a total of 200 women living in Accra at the time of data collection were purposively and conveniently sampled for the study. Participant's demographic characteristics, mental health, religiosity and stress were assed using demographic questionnaire, Mental Health Inventory, Santa Clara Strength of Religious Faith Questionnaire and Perceived Stress Scale respectively.Results from Pearson Product Moment and Hierarchical Multiple Regression analysis revealed that religiosity had a significant positive relationship with mental health and predicted mental health significantly. Stress had a strong negative relationship with mental health and also moderated the relationship between religiosity and mental health significantly. It is concluded from this study that mental health of women is significantly associated with their levels of religiosity and stress, and stress influences the religiosity-mental health link. This study provides the empirical basis for further research into mental health of women in Accra.

Keywords: *Stress, Religiosity, MentalHealth, Ghana, Women, Religious Attendance*

1. Introduction

Statistics on the size of the global burden of mental illness shows a major and increasing public health problem (Murray & Lopez, 1996) and in Ghana, nine percent (9%) of the disease burden represents mental illness, with women being affected more by common mental disorders than their male counterparts (de Menil, Osei, Douptcheva, Hill, Yaro& De-Graft Aikins, 2012). Yet women are underrepresented in treatment settings (de Menil et al., 2012). This is because women's mental health issues in Ghana are given less attention (Ofori-Atta, Cooper, Akpalu, Osei, Doku et al., 2010). Gender is considered a very important determinant of health, including mental health (WHO, 2009). Gender is therefore very pertinent in defining vulnerability and exposure to a number of mental health risks (WHO, 2009). Even though women's sexual and reproductive health needs are generally well known, there are other important health challenges such as mental illness, which seem to be ignored. Usually, women are found to report lower levels of well-being than men (Piccinelli& Wilkinson, 2000) and women are more at risk for common mental disorders such as anxiety, depression and somatoform disorders (de Menil, et al., 2012; Ofori-Atta, et al., 2010) . Focusing on the mental health of women is therefore not out of place, since they seem to be the most vulnerable group to psychological distress. According to the WHO, (2009), it has become crucial for deliberations and investigations concerning the poor mental health of women to go beyond the focus on individual and "lifestyle" risk factors to recognize the wider economic, legal and environmental factors that affect their lives. Social and demographic factors are also increasingly being reported to have very potent influences on mental health. For instance, results from a study done on Ghanaian women in certain selected communities in Accra suggested the correlates of physical and mental health in this population as education, income, number of children and unemployment (de Menil, et al., 2012). Religiosity has also been reported as one of the important determinants of both physical and mental health. Several researchers have found positive associations between religion and mental health (Ellison, 1991; Ellison, Finch, Ryan & Salinas, 2009; Rosmarin, Pargament& Mahoney, 2009). Religiosity has been defined as "the awareness of the existence of some ultimate supreme being who is the origin and sustainer of this universe and the establishment of constant ties with this being" (Gyekye, 1996 p.3). The African is considered as living in a religious world since the behaviors and thoughts of Africans mostly have religious influences. The African culture is infused with religion to the extent that one cannot talk about culture in Africa without the mention of religion. According to Gyekye (1996), religious faith among Africans is considered as functional and

practical rather than as a means for spiritual growth or the unification of the human soul with God. "The prayers of Africans are mostly requests for material well-being and earthly blessings …Petition for healing and longevity is one of the most important and common subjects of prayer because of the African's love for life" (Gyekye, 1996 p.16). This suggests that religiosity permeates all aspects of the functional life of Africans. Stronger religious identities have been found to be linked to greater abilities to cope with stressful situations, greater self-esteem and overall happiness in addition to improved physical health. Religious coping has been found to be associated with a sense of control over difficult situations, leading to more positive health outcomes (Pargament, Ensing, Falgout, Olsen, Reilly et al., 1990). Other aspects of the association between religiosity and mental health that have been explored include depression, anxiety, subjective well-being, life satisfaction, general psychological well-being, bipolar disorder among others (Abdel-Khalek, 2011; 2009; Cruz, Pincus, Welsh, Greenwarld, Lasky et al., 2010; Gupta, Avasthi& Kumar, 2011; LotufoNeto& Koenig, 2006). It is very clear at this point that the importance of religiosity in mental health research cannot be overemphasized.There is also evidence indicating that religiosity is an effective coping resource not only for people with health related problems but also those who do not have such problems (Plakas, Boudioni, Fouka&Taket, 2011; Trevino). Despite the fact that most research on religiosity and coping with illness have concentrated on physical illness, religiosity could also serve as a good coping resource for people with mental illness (Taylor, 2001). Moreover, there is a suggestion that religiosity maybe a very important tool for recovering from mental illness (Webb, Charbonneau, McCann & Gayle, 2011). However, some researchers found no relationship between certain aspects of religiosity and mental health outcomes (Baker & Cruickshank, 2009; Ellison et al., 2009; Rosmarin, Pargament& Mahoney, 2009; Smith, McCullough & Poll, 2003). Even though organizational religiosity such as religious attendance has been the most used measure of religiosity in the literature, its reliability has been criticized (Flannelly, Ellison, &Strock, 2004; Hall, Meador & Koenig, 2008). For instance, according to Flannelly et al. (2004), although knowing that a person belongs to a specific religious denomination implies something about the nature of one's beliefs, it does not provide information about the strength of those beliefs or one's adherence to the practices of that faith. Moreover, as Africans are said to be inherently religious, it may not take affiliation to a religious group or organization to make a person religious (Gyekye, 1996) consequently, the use of organizational religion in measuring religiosity would not be appropriate in this culture. The present study therefore employed strength of religious faith as the measure of religiosity in addition to religious attendance.The study examined whether religiosity has a significant influence on mental health of women. It also explored the nature of the relationship and found out whether stress moderates the relationship between religiosity and mental health. It was therefore hypothesized that religiosity will have a significant positive relationship with overall mental health index and stress will moderate the relationship between religiosity and mental health.

2. Methods

2.1. Population and sample

Women living in Accra during the period of the study were the target population for the study. Accra is highly populated and made up of diverse ethnic groups (AMA, 2011); hence it is more representative of the Ghanaian society than other cities and towns in Ghana. In all, two hundred (200) women were randomly and purposively sampled for the study. The sample included two groups: a) women with a history of mental illness sampled from Accra Psychiatric hospital and Pantang hospital and b) those without any history of mental illness who were sampled from the community. Participants ranged from 18 years to 65 years.

2.2. Measures

Data was collected using the following questionnaires:

2.2.1. Demographic questionnaire

was used to collect data on demographic characteristics of participants, which included age, educational level, income, marital status, religious attendance, religion, employment status, number of children and history of mental illness.

2.2.2. The Santa Clara Strength of Religious Faith Questionnaire [SCSRFQ]

(Plante&Boccaccini, 1997) was used to assess religiosity. This is a 10-item scale which is used to measure the strength of a person's religious faith regardless of one's religious affiliation. Scores on the scale range from 10 to 40 on a 4-point likert scale (1= strongly disagree, 2= disagree, 3= agree and 4= strongly agree) with higher scores indicating stronger religious faith. Plante&Boccaccini, (1997b) report an internal consistency (cronbach alpha) of .95. Several studies have also reported cronbach alpha ranging from .94 to .97 (Plante, 2010). In the present study, the internal consistency of the SCSRFQ was .95. Sample items include: "my religious faith is extremely important to me" and "I look to my faith as a source of inspiration".

2.2.3. The Mental Health Inventory (MHI-38)

whichwas developed by Veit and Ware (1983) was used to measure mental health. It is a 38-item scale which asks about respondent's feelings during the past month (Vilchinsky&Kravetz, 2005). Items can be grouped into two global subscales namely; psychological well-being and psychological distress. Items on the scale can also be scored into one mental health index. Each item is scored on a 6-point likert scale in exception of two items; 9 and 28 which are scored on a 5-point likert scale. Internal consistency for the present study recorded .88. Examples of items on the scale include: "During the past month, how much of the time have you generally enjoyed the things you do", "Did you feel depressed during the past month" and "How much of the time, during the past month, have you been a very nervous person".

2.2.4. The Perceived Stress Scale [PSS]

(Cohen & Williamson, 1988) was used to assess stress. It measures the degree to which situations in a person's life are interpreted as stressful. Items were designed to ascertain how unpredictable, uncontrollable, and overloaded respondents find their lives. The questions in the PSS-10 ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way. Each item on the PSS is scored on a 5-point Likert scale; 0= never, 1= almost never, 2= sometimes, 3= fairly often, 4= very often. Scores are obtained by reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) on the four positively stated items (items 4, 5, 7, & 8) and then summing across all scale items. Higher scores on the scale indicate more perceived stress. Sample items include: "In the last month, how often have you felt that you were unable to control the important things in your life" and "In the last month, how often have you felt nervous and stressed". In the present study, the internal consistency of the scale was r = .78.

2.3. Design and Procedure

The cross-sectional survey design was used for the study. The research began with the researcher obtaining ethical approval from the Internal Review Board of the Noguchi Memorial Institute for Medical Research (NMIMR). Once the approval was granted, a pilot study was conducted using 20 participants (10 with a history mental illness and 10 without a history of mental illness)to test the questionnaires on a section of the sample to ascertain their reliability among the sample and whether the items on the questionnaires are well understood by the participants. Data collection commenced after the pilot study by the principal investigator and two research assistants. Participants were required to complete an informed consent form, indicating their willingness to participate in the study before proceeding to fill the questionnaires. These forms described the topic and methods of the study and the voluntary and confidential nature of participation. Once the forms were signed, each of the participants went on to fill the questionnaires. Items on the questionnaires were read out to respondents who were unable to read. Throughout the administration of these procedures, the researcher and research assistants were available to answer questions from respondents.

3. Results

The mean age of participants was 30-49 years, 83% aged from 18 to 49 years; about 58% of participants had tertiary education. About 65% of the women earned below 500 Ghana cedis monthly despite the fact that about 58% were employed either in the formal sector or informal sector. For the respondents' marital status, there were more single women in the sample (49%) than married women (32%), 14% were separated/divorced and 5% were widowed. Results from Pearson's Product moment revealed that religious attendance did not have a significant relationship with mental health index, neither did it have a significant relationship with strength of religious faith and perceived stress. Strength of religious faith had a significant positive relationship with mental health. Perceived stress also had a very strong negative relationship with mental. The relationship between perceived stress and religiosity measures (religious attendance and strength of religious faith) though negative were not significant.

To find the moderation effect of stress, only strength of religious faith was used as the measure of religiosity since religious attendance did not have a significant relationship with mental health. The Hierarchical Multiple Regression also showed that both stress and religiosity predicted mental health significantly with stress accounting for more variance in mental health than religiosity [17% and 72% respectively]. The interaction between religiosity and stress was also significant [β= -.13; ρ<.05] which means stress moderated the relationship between religiosity and mental health significantly. The moderation model showed that the relationship between religiosity and mental health is weakened by the presence of perceived stress.

Findings are summarized in Table 1and Table 2.

VARIABLE	1	2	3
Religious attendance			
Strength of religious faith	.12		
Perceived Stress	-.08	-.12	
Mental health index	.06	.22**	-.74**

Table 1: Correlation matrix representing relationship among variables
*** Significant at the .01 level of significance*

Predictors	B	SEB	β	t	ρ
1 constant	133.75	7.48		17.88	.000
Religiosity	.69	.21	.22	3.23	.001
2 constant	177.80	5.84		30.44	.000
Religiosity	.43	.15	.14	2.94	.004
Stress	-2.33	.15	-.72	-15.23	.000
3 constant	174.83	5.84		29.96	.000
Religiosity	.51	.15	.17	3.48	.001
Stress	-2.33	.15	-.72	-15.54	.000
Rel*stress	-2.804	.10	-.13	-2.81	.005

Table 2: Hierarchical multiple regression showing the moderating effect of stress
1 R^2= .050, ρ= .001 2 ΔR^2= .515, ρ= .000 3 ΔR^2= .017, ρ= .005

4. Discussion and Recommendations

The present study sought to find out whether religiosity had a significant influence on mental health and to determine the nature of the relationship. It also aimed to find out whether stress significantly moderated the relationship between religiosity and mental health. Findings indicated that strength of religious faith has a significant positive relationship with mental health and predicted mental health significantly but religious attendance did not have a significant relationship with mental health. Stress also predicted a significant variance in the mental health of the sample and also significantly moderated the relationship between strength of religious faith and mental health.

Religious attendance did not have a significant relationship with strength of religious faith suggesting that attending religious services does not necessarily correspond with a person's level of religious faith. One can also conclude that religious attendance is not an appropriate measure of religiosity among the present sample. According to Dein, Cook and Koenig (2012), in collectivist cultures, individuality and the spirit world are closely interconnected, and in such cultures, mental health and spiritual health strongly reflect each other. From this perspective, it could be said that since the Ghanaian culture emphasizes collectivism, being religious is part of an individual's self-identity, hence being religious would reflect better mental health. Several other studies also found positive associations between measures of religiosity and various mental health outcomes (Bonelli& Koenig, 2013; Ismail &Desmukh, 2012).Ghanaian women are known to be very religious because women usually form the majority of most religious organizations and seem to attend more religious activities than men. Women would usually seek the opinion of their religious leaders on difficult matters and go to them for help in times of trouble. Religious teachings also provide a framework for understanding life events (James & Wells, 2003). Consequently, the more religious women are, the more likely it is for them to use religion in dealing with difficult situations and this translates positively into their mental health. However, the positive influence of religiosity on mental health may be weakened when participants perceive high level of stress. Other studies have also reported an interaction effect between religiosity and stress on mental health outcomes but in those studies stress have been found to rather strengthen the relationship between religiosity and mental health (Smith et al., 2003; Ward, 2010; Wei & Liu, 2013). Some studies however did not find any interaction between religiosity and stress on mental health outcomes (Tabak&Mikelson, 2009). It is recommended that since religious attendance did not have a significant impact on mental health, women should not just focus on religious service attendance, but they should strengthen aspects of their religious faith such as frequency of prayer, relationship with God, and the use religion as a source of inspiration and comfort in order to improve their mental health. As perceived stress was found to have a very strong predictive ability of mental health, stress management can be used as a tool for promoting mental health among these women.

4.1. Limitations

The sample used are relatively young and urbanized, it is therefore difficult to generalize findings to older and rural populations. The study also employed the cross-sectional survey method which does not allow for cause and effect inferences to be made from the present findings. The study however makes certain important revelations about the influence of religiosity and stress on mental among women in Ghana and lays the foundation for more research in this area.

4.2. Conclusion

The study sought to find out whether religiosity influenced mental health significantly and whether stress moderated the relationship between strength of religious faith and mental health. Findings reveal that religiosity had a significant positive relationship with mental health and this relationship was moderated by stress. This signifies that strength of religious faith and stress are relevant determinants of mental health and could be utilized in promoting mental health among women. There is however the need for further research (for instance qualitative research) to ascertain the specific mechanisms underlying these relationships.

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