

Do Social Factors Influence Savings for Health Care towards Old Age? Evidence from Nurses in a Municipality, Ghana

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Abstract

Ghana's ageing population is estimated to reach 11.9% by the year 2050. The National Health Insurance Scheme (NHIS), aims to improve financial access to basic health care. However, this does not include diseases that mostly affect the age population. The study determined the influence of social factors on savings for health care towards old age among nurses in a municipality, in the Greater Accra Region. Data was collected using quantitative methods where 227 nurses from three health facilities responded to a structured questionnaire. Data was analysed using STATA version 15.1. Basic descriptive statistics were run, and the relationship between variables was analysed using simple and multiple logistic regression. A 95% confidence level ($\alpha=0.05$) was used as a level of statistical significance. The prevalence of saving for health care among nurses was 80%. Number of dependents ($p=0.027$) and NHIS status ($p=0.017$) were statistically significant. Additionally, family's financial expectations ($p=0.013$), the need for the aged to be given proper health care ($p=0.046$), and spouse having a paid job ($p=0.005$) were significant among the social factors. Policy makers and management of health institutions should encourage workers to consider other private health insurance schemes, plan early and save enough for health care towards retirement/old age.

Keyword: Hospitals, Nurses, Old Age, Savings for Health Care, Social Factors

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1. INTRODUCTION

Global statistics show that the population of people who are termed 'aged' will increase from the present estimated figure of 700 million to 2 billion by the year 2050 (Mba, 2010). The projections are that the population of people who are aged will increase to about 33.6% in Europe; and 8.3% in sub-Saharan African countries by the year 2050 (World Health Organisation (WHO), 2014). The argument is that this growth would increase at a faster rate developing countries, including Ghana (WHO, 2014). This calls for the need to pay particular attention to the health needs of people in this population since they suffer from age-related health conditions (WHO, 2014). The population of the aged people in Ghana represented 6.7% in 2010, and expected to increase to 11.9% by 2050 (WHO, 2014). Fonta (2015) argues that non-communicable diseases are common among the aged due to weakness in the immune system, therefore, they depend on other family members for support, including health care. Reports show that certain diseases that cause morbidity and mortality among the aged population in countries such as Ghana, Nigeria and Cameroon are hypertension, stroke, dementia, arthritis, diabetes, and cancers (Aikins, Boynton, & Atanga, 2010). Aikins *et al.* (2010) explain that the challenge that these people face is about how to manage these conditions and where to seek appropriate help due to limited knowledge and poverty.

Even as the health conditions of the aged are mostly non-communicable diseases, which may require long term management, the reality is that the health systems in most of the low and middle income countries (LMICs) are contending with financial challenges (Araujo de Carvalho *et al.*, 2015). Araujo de Carvalho *et al.* (2015) argue that this can affect the health of the aged since there will not be enough services available to meet their health needs coupled with their inability to afford the cost of these services. Ghana's health system faces a similar challenge. Arguably, people in low income countries like Ghana, often have limited access to health care due to poverty, unavailability of the services, and lack of qualified personnel to provide care as compared with the developed

countries (Peters *et al.*, 2008). The way forward towards addressing this imbalance is to institute policies that will inform health systems on the current and future distribution of morbidity, mortality and dependence to ensure adequate planning to meet the changing dimensions of disease occurrence (WHO, 2014).

The current trend in the social dynamics shows that, the strong Ghanaian family system, which provided support for the aged is gradually breaking as a result of the migration of younger people from rural to urban centres for greener pastures - the aged are more vulnerable, especially in meeting their health care needs (Aboagye, 2012). There is a global recognition of the isolation and risk of illness suffered by the older people because of the changes in the Ghanaian traditional norms that ensure respect, support and reciprocity (WHO, 2014). This shows the influence of culture on savings for health care towards old age.

To address the imminent challenges in access to healthcare by the aged population, the Government of Ghana approved the national ageing policy in 2010, with the view to ensuring that the people age with dignity and security (Ministry of Employment, Labour and Social Welfare, 2010; WHO, 2014). Among the many health challenges of the aged identified include; dementia, cancers, diabetes, musculoskeletal diseases, respiratory diseases, heart disease and related conditions, oral health problems, among others, which require long-term treatment, which families are not able to bear the financial cost (WHO, 2014). The above information shows that there appears to be limited preparedness of individuals towards meeting their health care needs in old age - majority of the population in developing countries will live beyond age 60 years (Odeyemi & Nixon, 2013).

In view of the above, the issue to address is to look at the measures that could be put in place by individuals toward meeting their health needs while awaiting the implementation of the national ageing policy (Ministry of Employment, Labour and Social Welfare, 2010). It is anticipated that if nothing was done to encourage people to make

savings for health care towards old age, individuals would be burdened with huge medical bills at the time they are not on salary and their families would be under pressure to provide support, which may not be available. This would affect their health outcomes and could lead to avoidable premature deaths thereby losing their expertise and the health indicators of the country would also be affected. Moreover, the health disparities among the groups within this population will continue to widen. Nonetheless, it could be argued that few studies have investigated how social factors, especially the support system could provide the motivation for nurses to save towards health care in old age (Chowa & Ansong, 2010).

This research sought to address the gap in knowledge with regards to how nurses in Ghana are making savings for their health care towards old age. The objective of the study was to assess the influence of social factors on savings for health care towards old age among nurses. The research question was: what is the influence of social factors on savings for health care towards old age among nurses? This paper suggests that policy makers should collaborate with other stakeholders to ensure that adequate preparations are made to link the social and health care systems together so as to provide an efficient health care and humane social support to the growing aged population.

2. LITERATURE REVIEW

2.1 Savings towards health care

Savings has been explained to mean the act of refraining from spending one's income on consumption (Achar, 2012). Available literature indicates that health savings is money put aside for health care (Lo Sasso, Shah & Frogner, 2010). Achar (2012) suggests that some of the factors that influence savings are; income levels, exposure to information on savings, employment status, fiscal policy, pensions, insurance, and banking structure, among others. From the perspective of economists, people allocate disposable income between consumption and savings (Issahaku, 2011). Issahaku (2011) uses the classical definition

and explains that, saving is income minus consumption, thus, income that is not consumed by immediately buying goods and services. For this study, 'health saving' refers to money put in a savings accounts, which will be used for health care in old age (Achar, 2012).

Among the factors influencing teachers' ability to save regularly with formal financial institutions in Kenya were; age, sex, level of income, and dependency ratio (Kibet, Mutai, Ouma, Ouma & Owuor, 2009). Chowa and Ansong (2010) added that socio-demographic/economic and cultural factors also influence saving habits among the youth. Another study revealed that health on retirement and general wellbeing informed nurses' decision to make savings for healthcare in old age (Blakeley & Ribeiro, 2008). Among the reasons for savings in Ghana include; children's needs, building a house, and retirement (Addai, Gyimah & Owusu, 2017).

However, a study notes that in spite of the high costs and major financial risks involved in long-term care, the majority of older Americans do not own long-term care insurance (Brown, Goda & McGarry, 2012). A study shows the view that among the reasons for low savings in developing countries are; low income levels, lack of education on savings, and postponement of saving till a well-paid job is had (Chowa & Ansong, 2010). Similarly, a research attributes the reasons to low income levels, high dependency ratio, and poor financial management in Ghana (Addai *et al.*, 2017). Even though 38% of the Ghanaian population in 2011, had saving accounts, savings had reduced in the past two decades - this has serious financial implications for individuals and the country (Afoakwa, Annim & Peprah, 2015). The way forward to encouraging savings is to ensure people's exposure to information on savings and pension plans - key to ensuring that they take steps early to meet their health needs in old age (Clark, Morrill & Allen, 2012).

2.2 Social factors influencing savings for health care towards old age

There appears to be no consensus on what constitutes social factors - they are context-

specific (Gifford & Nilsson, 2014). Gifford and Nilsson (2014) explain that social factors include religion, urban-rural differences, norms, social class, cultural and ethnic variations and these have an influence on the way people behave. Valsiner's (2007) view is that, it is an explication of how culture operates at the mentalistic and social planes of human existence - these have an influence on everything, including savings and health outcomes. Literature shows that cultural syndrome is a pattern of shared attitudes, beliefs, self-definitions, norms, and values, among others (Cohen, 2009). Cohen (2009) explains that these are organised around a theme that could be identified among those who speak a particular language, and in a definable geographic region. In Ghana, the family was considered as social security for older people where very weak social security institutions exist (Aboagye, 2012). Aboagye (2012) notes however, that the role of the family in the care and support of elders is declining. This is due to the change in focus of people on their nuclear families instead of the extended families. This researcher also attributes it to the growing economic constraint, which makes it difficult for families to support the elderly (Aboagye, 2012). The social factors that could influence savings for healthcare towards old age have been shown below.

Perceptions of aged healthcare: The perceptions of the people could influence their decision to save for healthcare. It is recognised that care of older adults occurs in a cultural context in which the older members of society are poorly valued, often referred to as ageism (Holroyd, Dahlke, Fehr, Jung, & Hunter, 2009). It appears that most Ghanaians do not seem to plan for health care/insurance as planning for health care indicates that the person is planning to get sick – this is seen as evil (see Ackah & Owusu, 2012; Adomah-Afari, 2015). Ackah and Owusu (2012) suggested that most Ghanaians rely on the protection of God and do not plan for unforeseen circumstances. The challenge is that people's belief system culminating into superstition; and some traditional beliefs and practices have effectively combined to worsen the lot of the elderly (Tawiah, 2011). Tawiah (2011) explains

the challenge faced by older females in some parts of Ghana because their aged related diseases are perceived by culture to be associated with witchcraft. The reality is that chronic diseases are attributed to spiritual causes and these spiritual causal theories inform lay engagement with traditional healing systems (Aikins *et al.*, 2010).

Cultural beliefs: Studies show that culture-influenced personal beliefs are found to play a substantial role in shaping individuals' attitudes toward health services (Jang, Kim, Hansen, & Chiriboga, 2007). Abotchie and Shokar (2009) suggest that there are cultural and traditional beliefs that are influencing the responses to cervical cancer screening with a rippling effect on savings for health care. Jang *et al.* (2007) suggest the need to understand how culture influences the development of community education and outreach programmes towards enhancing mental health service utilisation in older ethnic minority populations. The maxim is that in some cultures, families prefer to invest in the education of a boy to the detriment of a girl (Chowa & Ansong, 2010). Chowa and Ansong (2010) attribute this to the reason that the money a son earns from employment after graduation would remain in the family whereas a girl's wealth would be given to her in-laws.

Social protection: There is a suggestion that social protection is the base for a secure and acceptable life with the main aim of tackling poverty and protecting people from risks and shocks caused by unexpected economic fluctuations (Abebrese, 2011). Some of the social protection policies introduced in Ghana include the Social Security and National Insurance Trust (SSNIT), the National Health Insurance Scheme (NHIS), the Ghana School Feeding Programme (GSFP) and the Livelihood Empowerment Against Poverty (LEAP) (Abebrese, 2011; Gobah & Zhang, 2011). Gobah and Zhang (2011) explain that the aim of the NHIS was to improve financial access of Ghanaians, to quality basic health care services and to limit out-of-pocket payments at the point of service delivery, especially the poor and the vulnerable such as the aged. However, there are some challenges due to increasing cost of care,

multiple attendance, and increased drug prescription (Gobah & Zhang, 2011).

Some researchers suggest that there would be high utilisation of health services if people were covered by a health insurance scheme (Blanchet, Fink, & Osei-Akoto, 2012). Blanchet *et al.* (2012) explain that whilst social security and pension are methods used in most developing countries like Ghana to reduce poverty, this is meeting the needs of only a small portion of workers who are in the formal sector. To address the limited coverage of the social security and pension, Ghana introduced the LEAP programme, with the view to providing social grants to beneficiaries chosen from extremely poor households (Osei, 2011). Even though all the above are attempts made by the government, these alone cannot reduce poverty and improve quality of life because demands keep changing and the government's purse is already constrained. Hence, the need for developing strategies to address healthcare in old age is becoming more urgent in Ghana.

The neoclassical economic theory, psychological and sociological theory, and behavioural economic theory are some of the savings theories in the literature (Pollak, 1998). The concept of neoclassical economic theory is that people are considered as sensible beings and would react in expected ways to the dynamics in their environments (Pollak, 1998). Pollak (1998) argues that this perspective shows that there are two things that will determine an individual's behaviour - opportunities/constraints and individual preferences. This model suggests that individuals have adequate knowledge and contact with perfect markets and that individual success is usually assumed to be the purpose of consumption - economic models treat savings as a residual (Modigliani & Brumberg, 1954). Additionally, the life cycle hypothesis (LCH), and the permanent income hypothesis (PIH) theories accept that individuals and households are concerned about long-term consumption opportunities - these theories adopt that saving is a way to level consumption in the face of income variations (see Modigliani & Brumberg, 1954; Friedman, 1957;

Pollak, 1998).

A research suggests that saving for retirement seems to start only in middle-age, and is insufficient to prevent a sharp fall in consumption at retirement (Banks, Blundell, & Tanner, 1998). There are also psychological and sociological theories of saving, which consider that the determining factors are asset accumulation, including character, incentives, aspirations, expectations, and peer and family influences. Other psychological and sociological proposals assume the notion that saving-related preferences and objectives are not fixed but describe how reasons, goals, and potentials are formed (Addai *et al.*, 2017). Addai *et al.* (2017) acknowledge the fact that the emerging behavioural theory of saving tries to explain people's behaviour about financial matters. This position contradicts that of neoclassical economic theory in the sense that these models do not assume that people are rational and well-informed but tries to clarify the behaviour of human beings as human and not automatically as rational beings (Addai *et al.*, 2017).

Against these perspectives, the analysis of the desire of nurses to save for health care towards old age was discussed in this study considering the gaps in the literature. The context of this study was that social factors would influence how the individual would make savings for health care towards old age. Thus, these factors directly or indirectly influence the chances of an individual making savings for health care towards old age. In a cultural setting like Ghana, where children are obliged to take care of their parents in old age, the possibility of not making saving for health care towards old age may be high (Aboagye, 2012).

3. RESEARCH METHODOLOGY

A quantitative research method was applied to collect empirical data in June 2018, for subsequent analysis in the study.

3.1 Study design and population

A cross-sectional study, which is a snapshot of the outcome situation at a point in time was applied to collect data because it enabled the researchers to

focus on a section of the health workforce (Hall, & Jolly, 2008). The quantitative research method, was applied since the variables of interest in this study could be quantified and analysed statistically (Williams, 2007). The study participants involved 227 nurses of all categories who were on government payroll and were between the ages of 18 and 60 years. The idea was that since the nurses were working permanently and receiving regular income and given their knowledge of health and related matters, they would be more inclined to save for health care towards old age. The use of nurses who constitute the largest of the health sector workforce was also to assist the researchers to extrapolate or generalise the findings to the nurses/nursing population/profession. The evidence could be used to design appropriate policies for other health care workers and other professions as well.

3.2 Study area and sampling

This study was conducted in a municipality in the Greater Accra Region. This municipality was selected because majority of the inhabitants were migrants with different cultural and social backgrounds. It was also because they had different health facilities with nurses of different categories. The municipality has 22 health facilities and various categories of health staff that provide health care to the people. Out of the twenty-two (22) health facilities, seventeen (17) are private, four (4) are government-owned and one (1) under the Christian Health Association of Ghana (CHAG). For this study, three (3) health facilities were selected; a public psychiatry hospital, a public polyclinic and a private hospital. Stratified and simple random sampling techniques were used to select the participants for the study. Since there was no available prevalence rate specifically related to the municipality, the study adopted the prevalence rate used in a study in Pakistan (Rehman, Bashir, & Faridi, 2011). That is, a sample size of 206 was generated using the prevalence of 84% at 95% confidence interval, and 0.05 margin of error using the Fisher's formula.

Additionally, 10% of non-response was added to make up a total sample of 227 participants.

3.3 Data collection

Using the approach by earlier researchers, a structured questionnaire with closed-ended questions was designed and self-administered by the study participants answerable within 30 minutes at their various work places (Adler & Stead, 2015). The questionnaire was designed by the researchers based on variables identified in literature and supported by theoretical evidence (see Modigliani & Brumberg, 1954; Friedman, 1957; Pollak, 1998; Rehman *et al.*, 2011). The questionnaire was divided into sections covering the socio-demographic/economic characteristics and social factors of the participants. The questionnaires were distributed to participants with the help of two research assistants.

3.4 Data quality assurance, validity and reliability

The two research assistants were trained for two days for them to understand how to use the data collection tools, how to collect adequate data, make corrections and ensure completeness. In conducting a study that applied quantitative methods, it was necessary that efforts were made to ensure the validity and reliability of the data and results. Validity refers to the degree to which empirical evidences and theoretical rationales support the adequacy and appropriateness of interpretations and actions based on test scores whilst a test is seen as being reliable when it can be used by several different researchers under stable conditions, with consistent results and the results not varying (Wahyuni, 2012; McCusker, & Gunaydin, 2015). To ensure validity and reliability, the data collection instruments were pretested at a different polyclinic with nurses, which provided the opportunity for the researchers to reframe the questions to suit the requirements for the conduct of the main study and appropriate analytical strategies were applied in the analysis of the data. Relevant theories that exist on savings

were also reviewed and factored into the development of the questionnaire. It was anticipated that the results would be valid and reliable. Thus, the strategy could be replicated by other researchers in other settings.

3.5 Data management and analysis

The data collected was edited manually to correct any duplications and wrong entries. The edited data was then coded and entered and analysed statistically using Stata software version 15.1. Basic descriptive statistics were run and the results presented using tables depicting frequencies, percentages, and proportions. The relationships between variables were further analysed using simple and multiple logistic regressions. This data analysis strategy was earlier applied by some researchers and was adapted since it was relevant to this study (Rehman *et al.*, 2011). The level of significance of this study was 95% ($p < 0.05$).

3.6 Ethical consideration

Ethical approval was granted by the Ghana Health Service Ethics Review Committee before the commencement of the study with the clearance reference number: GHS-ERC: 045/01/18. Permission was also obtained from the Greater Accra Regional Health Directorate, Municipal Health Directorate, and management of the three selected health facilities. Consent of the participants was sought before inclusion in the study. Confidentiality of data collected was ensured by using identifiers rather than names of participants. Participation in the study was voluntary. The study involved no risk to the participants and there was no compensation package provided to the participants. There was no conflict of interest in this study because the researchers had nothing to do with the facilities where the study was conducted. This study was funded by the researchers and there was no third-

party funding.

4. RESULTS

4.1 Socio-demographic/economic characteristics of respondents

Out of the 227 questionnaires distributed, about 214 were retrieved with a return rate of 94.3%. The ages of the respondents were classified into four groups as: <30 years, 76 (36.9%); 30-39 years, 101 (49.0%); 40-49 years, 18 (9.0%); 50+, 11 (5.1%), and there rest (3.7%) did not disclose their ages with the mean age of 32.16 and standard deviation 8.06. About 44 (20.6%) respondents were males and 169 (79.3%) were females. In classifying the respondents by marital status, 78 (36.6%) were single, 132 (61.9%) were married and, 2 (0.9%) were divorced. About 42 (19.6%) were certificate holders, 108 (50.4%) were diploma holders, 44 (20.5%) were undergraduates, 1 (0.4%) was a graduate and 19 (8.8%) were post-graduates. Dependents of respondents ranged between 1 and 11, which included siblings, 88 (60.7%), parents, 108 (74.5%), in-laws, 12 (8.28%), and children ranged between 1 and 6. The results showed that 193 (91.0%) of the respondents did not report any known chronic health condition while 19 (8.96%) had a known existing chronic condition. More than half, 195 (93.3%) of the nurses were insured while 14 (6.7%) were not insured with 184 (87.6%) having their insurance cards active. About 201 (94.3%) were Christians compared with 12 (5.6%) Muslims. The major ethnic groups in the study were Akan, 63 (36.0%), Ewe, 46 (26.2%), Ga, 24 (13.7%), Dagomba, 6 (3.4%) and Fanti, 12 (6.8%). About 176 (85.0%) lived in the urban areas, 16 (7.7%) lived in the peri-urban areas and 15 (7.25%) lived in rural areas. A summary of the socio-demographic/economic characteristics of the study sample is shown in Table 1.

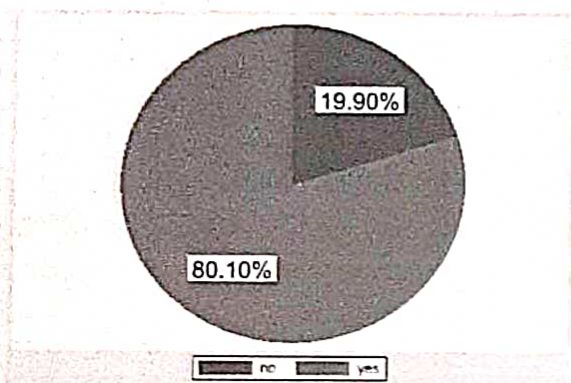
Table 1: Socio-demographic/economic characteristics of respondents

Variable	Frequency (N)	Percentages (%)
Age		
<30	76	36.9
30-39	101	49.0
40-49	18	9.0
50+	11	5.1
Sex		
Male	44	20.66
Female	169	79.34
Marital status		
Single	78	36.62
Co-habiting	1	0.47
Married	132	61.97
Divorced	2	0.94
Widowed	0	0
Level of education		
Certificate	42	19.62
Diploma	108	50.47
Under-graduate	44	20.56
Post-graduate	20	9.35
Number of Dependents		
1	18	12.6
2	54	37.7
3	39	27.3
4	19	13.3
5+	13	9.1
Existing known chronic condition		
Not known	193	91.04
Known	19	8.96
Health insurance status		
Non-insured	14	6.70
Insured	195	93.30
Religion		
Christian	201	94.37
Muslim	15	5.63
Tribe		
Ewe	46	26.29
Akan	63	36.00
Ga	24	13.71
Fante	12	6.86
Dagomba	6	3.48
Others	23	13.66
Place of residence		
Urban	176	85.02
Peri-urban	16	7.73
Rural	15	7.25

4.2 Overall savings for health care towards old age

Deposits made into saving accounts were used to measure savings for healthcare towards old age. Overall, out of 214 respondents, 41 (19.9%) reported that they would not save money for health care towards old age while 165 (80.1%) would make savings for health care towards old age. The results are represented in Figure 1.

Figure 1: Overall savings for health care towards old age.



4.3 Relationship between socio-demographic/ economic factors and saving for health care towards old age

The study findings by chi-square test revealed that there was a significant association between health insurance status and savings for health care among nurses ($p=0.01$). The results also showed that there was an association between number of dependents and savings for health care ($p=0.027$). Other variables, including age ($p=0.401$), sex ($p=0.850$), marital status ($p=0.661$), religious affiliation ($p=0.089$), and educational status ($p=0.808$), place of residence ($p=0.280$), and existing chronic condition ($p=0.278$) did not show any association with the outcome of interest in the study. The results are shown in Table 2.

Table 2: Relationship between Socio-Demographic/ Economic Factors and Savings for Health Care Towards Old Age

Variable	Frequency n(%)	Saving for health care		Chi-square =X ²	P-value
		Yes- n(%)	No -n(%)		
<i>Age of respondents</i>				2.9404	0.401
<30	76 (36.90)	61 (83.56)	12(16.44)		
30-39	101 (49.00)	78 (80.41)	19(19.59)		
40-49	18 (9.00)	12 (66.67)	6 (33.33)		
50+	11 (5.10)	8 (72.73)	3(27.27)		
<i>Sex of respondents</i>				0.036	0.850
Male	44 (20.66)	34 (79.07)	9 (20.93)		
Female	169 (79.34)	131 (80.37)	32(19.63)		
<i>Educational status</i>				0.9730	0.808
Certificate	42 (19.62)	31 (77.50)	9 (22.50)		
Diploma	108 (50.47)	85 (74.99)	22 (20.56)		
Undergraduate	44 (20.56)	35 (85.37)	6 (14.63)		
Postgraduate	20 (9.35)	14 (77.78)	4 (22.22)		
<i>Religious affiliation</i>				2.887	0.089
Christians	201 (94.37)	154 (78.97)	41 (21.03)		
Muslims	15 (5.63)	11 (100)	0 (0.00)		

Variable	Frequency n(%)	Saving for health care		Chi-square =X ²	P-value
		Yes- n(%)	No -n(%)		
<i>Marital status</i>				1.593	0.661
Single	78 (36.62)	59 (78.11)	13 (18.06)		
Co-habiting	1 (0.47)	1 (100)	0 (0.00)		
Married	132 (61.97)	103 (79.23)	27 (20.77)		
Divorced	2 (0.94)	1 (50)	1 (50)		
<i>Number of dependents</i>					0.027**
1	18 (12.60)	14 (77.78)	4 (22.22)		
2	54 (37.70)	47 (92.16)	4 (7.84)		
3	39 (27.30)	32 (82.05)	7 (17.95)		
4	19 (13.30)	15 (78.95)	4 (21.05)		
5+	13 (9.10)	7 (53.85)	6 (46.15)		
<i>Place of residence</i>				2.544	0.280
Urban	176 (85.02)	132 (78.11)	37 (21.89)		
Peri-urban	16 (7.73)	15 (93.75)	1 (6.25)		
Rural	15 (7.25)	12 (85.71)	4 (14.29)		
<i>NHIS status</i>				5.673	0.017**
Insured	195 (93.30)	153 (81.38)	7 (53.85)		
Not insured	14 (6.70)	35 (18.62)	6 (46.15)		
<i>Existing chronic condition</i>				1.174	0.278
Known	19 (8.96)	17 (89.47)	2 (10.53)		
Not known	193 (91.04)	147 (79.03)	39 (20.97)		

4.3 Relationship between social factors and savings for health care

From the chi-square test results, there was a relationship between savings for health care and working status of spouse ($p=0.005$). There was also an association between family financial expectations and savings for health care ($p=0.013$) and there was an association between proper aged health care and savings for health care ($p=0.046$).

However, there were no associations between these factors and savings for health care: spousal consent ($p=0.318$), number of children ($p=0.482$), family's willingness to support medical bills ($p=0.929$), contribution to SSNIT ($p=0.163$), meeting needs on retirement ($p=0.459$), and wanting NHIS to cover aged healthcare ($p=0.062$). The details are shown in Table 3.

Table 3: Relationship Between Social Factors and Savings for Health Care

Variable	Frequency n(%)	Saving for health care		Chi-square =X ²	P-value
		Yes- n(%)	No -n(%)		
Spousal consent				0.996	0.318
Consent	101(51.27)	75(76.53)	23(23.14)		
No consent	96(48.73)	75(82.42)	16(17.58)		
Spouse working status				7.799	0.005**
Working	156(87.15)	124(81.05)	29(18.95)		
Not working	23(12.85)	12(54.55)	10(45.45)		
Number of children				3.470	0.482
0	40(21.86)	31(79.49)	8(20.51)		
1	39(21.31)	33(86.84)	5(13.18)		
2	54(29.51)	43(83.69)	9(17.31)		
3	34(18.58)	24(70.59)	10(29.41)		
4+	16(8.74)	12(75.89)	4(25.00)		
Family expectations				6.136	0.013**
Affecting savings	145(69.38)	122(84.72)	22(15.28)		
Not affecting savings	64(30.62)	41(69.49)	18(30.51)		
Does the aged need proper care for aged				3.970	0.046**
Need proper care	204(99.51)	158(80.20)	39(19.80)		
Do not need proper care	1(0.49)	1(100)	0(0.00)		
Will family be willing to support medical bills				0.147	0.929
Willing	104(49.06)	79(79.00)	21(21.00)		
Not willing	21(9.91)	17(80.95)	4(19.05)		
Not sure	87(41.04)	69(81.18)	16(18.82)		
Do you contribute to SSNIT				1.945	0.163
Contribute	199(94.31)	157(80.93)	37(19.07)		
Don't contribute	12(5.69)	7(63.64)	4(36.36)		
Meet needs on retirement				0.549	0.459
Enough	45(22.50)	38(84.44)	7(15.56)		
Not enough	155(77.50)	120(79.47)	31(20.53)		
Do you want NHIS to cover aged healthcare				3.475	0.062
Cover	201(95.71)	158(81.56)	37(18.97)		
Not cover	9(4.29)	5(55.56)	4(44.44)		

4.5 Logistic Regression: Social factors and savings for health care

The results showed that the odds of saving for health care among nurses whose spouses had a paid job was 3.6 times than that of those without a paid job ($p=0.009$, $CI=1.40 - 9.01$). After adjusting for all other social factors, the odds of saving for health care towards old age among those whose spouses had paid jobs increased to 3.9 times compared with those whose spouses had no paid jobs ($p=0.011$, $CI=1.37 - 11.05$), which was statistically significant. Additionally, the odds of

saving for health care among nurses with family financial expectations was 2.43 times than that of those without family financial expectation ($p=0.016$, $CI=1.19-4.98$). In addition, the odds of saving for health care among nurses who said NHIS should cover all health care services was 3.13 times than that of those who said it should not cover all health care services ($p=0.09$, $CI=0.87-13.34$). The relation between social factors and savings for health care towards old age was not statically significant ($p>0.113$). Details of the results are shown in Table 4.

Table 4: Logistic Regression: Social Factors and Savings for Health Care Towards Old Age

Variable	COR (95%CI)	P-value	AOR(95%CI)	P-value
Spouse working status				
Ref				
Working	3.56(1.40, 9.04)	0.008**	3.9(1.37, 11.05)	0.011**
Family expectations				
Ref				
Affecting savings	2.43(1.19, 4.98)	0.015**	1.8(0.75, 4.24)	0.186
Will family be willing to support medical bills				
Ref				
No	1.1(0.34, 3.72)	0.841	1.0(0.26, 4.00)	0.983
Not sure	1.1(0.55, 2.37)	0.712	1.2(0.48, 2.80)	0.735
Do you contribute to SSNIT				
Ref				
Contribute	2.4(0.67, 8.72)	0.175	1.2(0.12, 12.78)	0.891
Will SSNIT contribution meet needs on Retirement				
Ref				
Enough	1.4(0.57, 3.44)	0.460	1.0(0.37, 2.63)	0.977
NHIS to cover age healthcare	0.090			
Ref				
Take care of health cost in old age	3.1(0.87, 13.34)	0.175	3.5(0.61, 20.47)	0.161

5. DISCUSSION

The discussion of the findings of the study is based on similar evidence in literature that the link between social factors of care and hospitalisation indicates that a nonmedical model of care may not jeopardise, and may in fact benefit, health-related outcomes (Zimmerman, Gruber-Baldini, Hebel, Sloane, & Magaziner, 2002). A study found that significant predictors of nurses' burnout included age, job status, job stressors, and hardy personality

(Garrosa, Moreno-Jimenez, Liang, & Gonzalez, 2008). This means that any further stressors from their homes would reduce these nurses' ability to deliver quality health care to their patients as well as affect their health in old age. Thus, a provision of a formal social protection would be a welcome news. Consequently, the study found that there was a significant association between health insurance status and savings for health care.

Additionally, reducing work pressures and burnout would help in balancing the pressures from their homes due to dependence as it is happening in the Ghanaian context. The reality of family dependence was manifested in the study as there was a significant association between the number of dependents and savings for health care among the nurses. Hence, a study suggests that an intervention aimed at reducing the risk for burnout may achieve better results if it includes enhancement of workers' hardy personality rather than just decreasing environmental stressors (Garrosa *et al.*, 2008). Since the traditional/extended family system in Ghana keeps changing, there will be the need for spouses to get prepared to care for each other in old age. Significant to this was the fact that the results revealed that there was an association between the working status of a spouse and savings for health care. This means that the nurses whose spouses had paid jobs were likely to make savings for health care towards old age. This finding supports the contention that there is some shift in emphasis on long term care of the elderly from institutional to community-based services, leading to a situation where the critical role of caregivers in the support network gaining more recognition (Crossman, London, & Barry, 1981).

Furthermore, financial expectations from other family members were found to be affecting savings for health care as compared with those that did not have such demands. However, after adjusting for all other cultural factors, this was not statistically significant. This indicates that, putting all social factors together, spouses who had paid jobs' contribution to savings for health care was not statistically significant. The results also revealed that there was an association between the aged need for proper health care and savings for health care towards old age. The above findings are similar to an earlier study, which suggested that an increase in household income would increase savings (Kodom, 2013). Indeed, a research found evidence that each of these factors (substitutes for formal care, such as care provided by family members, among others) was important in explaining the low demand for long-term care insurance in America (Brown *et al.*, 2012). Brown

et al. (2012) found that people who could use unpaid care from family members, were less likely to purchase insurance in America.

The essence of social protection packages for nurses was shown in this study as there was an association between SSNIT contributions and savings for health care. Nurses who contributed to SSNIT pension scheme were more likely to make savings for health care towards old age compared with those who did not contribute to SSNIT. Nonetheless, among those who contributed to SSNIT and said their contribution was not enough to meet their needs on retirement were 1.4 times more likely to make savings for health care compared with those who said it was enough to meet their needs on retirement. This could explain why the evidence shows that savings for old-age, and out-of-pocket expenses accounted for 13.5% of aggregate wealth, suggesting that all newborns would benefit if social insurance for nursing home stays was made more generous (Kopecky & Koreshkova, 2014).

Van Houtven & Norton (2004) suggest that informal care reduces home health care use and delays nursing home entry, in old age. The study found that there was an association between the family's willingness to support medical bills on retirement and savings for healthcare towards old age. Nurses who said they were not sure of family's support were more likely to make savings for health care towards old age compared with those who said family members were going to support bills. This supports the argument that the family system that gave protection to the aged was breaking down, gradually (Aboagye, 2012). This supports the need for reforms in pension schemes to meet current financial needs so as to give social protection to the aged (Holzmann, 2013). Overall, there was an association between all the social factors and savings for health care towards old age. However, the strength of the association was not statistically significant. This is why some analysts opined that features of the private market, such as people's lack of trust in insurers and the high cost of coverage, made people less likely to buy long-term care insurance (Brown *et al.*, 2012).

6. CONCLUSION

Despite the increasing number of people aged above 60 years increasing in developing countries, not much is being done to meet the health needs of the ageing population, especially improving financial access to health care (Andersen, Davidson, & Baumeister, 2014). This study therefore, applied a cross-sectional study using quantitative methods among 227 nurses; to solicit responses relating to the influence of social factors on savings for health care towards old age in a municipality in the Greater Accra Region of Ghana. The study concludes that social factors could influence savings for health care towards old age with the prevalence of 80%. Albeit the prevalence was below the WHO standards, there was evidence of the relationship between social factors and savings for health care. The low prevalence could be due to limited knowledge of planning for the future as far as health care was concerned as documented (Clark *et al.*, 2012).

There is the need to recognise the suggestion that policy interventions designed to address only one factor limiting the purchase of long-term care insurance are unlikely to dramatically increase demand for long-term care insurance (Brown *et al.*, 2012). The study concludes that, spouses with paid jobs, family financial expectations, NHIS status, dependents and proper health care for the aged were statistically significant with savings for health care towards old age. Additionally, the study revealed that SSNIT contributions, not sure of family support in old age and the expectation that NHIS be expanded to cover all common aged-related health conditions had an influence on savings for health care towards old age. This supports the recommendation that pension reforms should be reviewed to meet current financial needs, therefore, providing financial protection to the aged to prevent poverty (Holzmann, 2013).

6.1 Contribution to policy and practice

There is the need for policy makers at the Ministry of Employment, Labour and Social Welfare to consider the social factors identified in this study for inclusion in the formation and reformulation of the national ageing policy. There is the need for the introduction of early pension health care plans education preferably at the point of appointment

by the Ministry of Health/Ghana Health Service to enable nurses start early and save adequately for health care towards old age since old age has a negative influence on savings. Hence, a study suggests that one way to reduce the number of people taking early retirement would be to put the emphasis on psychosocial factors, such as job control, affecting the older workers (Elovainio *et al.*, 2005).

A study contends that medical settings in which all categories of health and non-health professionals work together as teams can demonstrate improved patient outcomes (Grumbach, & Bodenheimer, 2004). Hence, this study recommends that the National Health Insurance Authority (NHIA) in collaboration with the relevant stakeholders should strengthen and expand the NHIS to be more relevant to the health needs of the aged. Currently, the NHIS, does not cover all health care costs, especially those common among the aged (Ministry of Employment, Labour and Social Welfare, 2010). This could be achieved through engagement with the various trade unions to come up with suggestions on the roles that the various stakeholders could play that would inform policy in meeting their health needs on retirement. This initiative should not ignore the fact that a number of barriers to team formation exist, chiefly related to the challenges of human relationships and personalities as intimated in earlier studies (Grumbach & Bodenheimer, 2004).

Kelley *et al.* (2013) revealed that among those survived by a spouse, 10% exceeded total baseline assets and 24% exceeded non-housing assets. It would be recalled that under the current national health insurance dispensation, a 100% coverage of the costs of ill-health of subscribers, which was provided under the NHIS Act 650 of 2003, is not in sight (Adomah-Afari, 2015). For this reason, the amended NHIS Act 852 of 2012, reiterates the need for the provision of private health insurance schemes to complement the NHIS (Sarpong *et al.*, 2010; Adomah-Afari, 2015). In doing this, efforts should be made to avoid the reality where despite medicare coverage, elderly households are faced with considerable financial risk from out-of-pocket healthcare expenses at the end of life (Kelley *et al.*, 2013).

The study recommends that the management of health institutions should organise periodic sensitisation workshops on pensions and insurance as a way of encouraging their workers to start planning for retirement early to be able to save enough for health care, hence, reducing overdependence on the SSNIT pension in old age. The rationale is that some analysts found that in critical care nurses, the frequency of moral distress situations that were perceived as non-beneficial to their patients had a significant relationship with the experience of emotional exhaustion (Meltzer, & Huckabay, 2004). To resolve this problem of emotional fatigue while they are at work, the study recommends the need for management of health institutions to understand the concepts of compassion satisfaction, burnout, and compassion fatigue, recognising the signs and symptoms, and identifying best practice interventions (Hooper, Craig, Janvrin, Wetsel, & Reimels, 2010). Since the emotional care could be provided by the family and community, the study argues that nurses and their relatives should be encouraged to engage themselves in income generating activities to make savings for health care.

6.2 Contribution to methodology

The use of quantitative methods in data collection and analysis enabled the researchers to quantify the data that was collected and interpreted the results with figures, which gave a clear picture of the findings compared with a qualitative method that is not able to quantify the findings of a study (McCusker, & Gunaydin, 2015). It also enabled the researchers to measure and quantify the association between the dependent and independent variables, which could not have been possible using qualitative methods (Wahyuni, 2012). Consequently, the findings of this study could be generalised to the population of interest.

6.3 Limitations to the study and future research

The target population of the study by the nature of their work is busy. This could be seen in the incompleteness of some of the questionnaires. Thus, administering the questionnaires at the hospital environment influenced the responses as the nurses were busy attending to their clients. In

addition, most of the respondents considered information about salary and saving culture as personal. This was evident while checking for completeness and accuracy of the responses to the questionnaires and during analysis. It was found that out of the 214 returned questionnaires, only 78 had indicated their salary level. This might have affected the quality of the information that was given. Another limitation was the fact that the questionnaires were self-administered. And the researchers did not have control over the responses to the questions - this could have affected the results. The study population that consisted of all categories of nurses might have had similar characteristics, which could also have affected the results. Another limitation was the fact that deposits made into saving accounts were used to measure savings for healthcare towards old age. However, there could be other ways nurses were making savings for health care. In view of the limitations encountered in the conduct of this study, it is recommended that more studies should be conducted to identify the investment opportunities available for nurses in Ghana and other developing countries. The sample size and the study sites should be increased in future studies considering people from different professional backgrounds in order to improve on the findings and ensure comparative analysis.

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