
ASSESSMENT OF EFFECTIVE GERIATRIC CARE SERVICES AMONG HEALTH CARE PRACTITIONERS IN ASHANTI REGION: PROTOCOL OF A CROSS-SECTIONAL STUDY

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ABSTRACT

Background

In Africa, the elderly population is increasing at the fastest rate and this has become a burden as the rate is not proportional to the investment in health to meet their deteriorating health needs. Together with poor health care services, this creates discrepancies in access to health due to the financial limitations of the aged. Poor care services are related to poor knowledge, and bad perception hence this study seeks to explore the health practitioners' level of knowledge, attitude, practice (KAP), and perception toward geriatric care.

Methods

Using a convenient sampling technique, 257 participants consisting of medical doctors, nurses, and physician assistants will be recruited within two months from three (3) polyclinic hospitals in the Ashanti Region (Tafo Government Hospital Suntreso Government Hospital and Kumasi South Hospital). A structured questionnaire will be used to assess KAP. Knowledge will be assessed by the use of the Knowledge about Older Patients Quiz (KOP-Q) while perception uses and attitude utilizes Nolan and Kogan's attitude towards old people scale.

Results

The study will provide insight into the current state of geriatric care in the country especially among health practitioners. It will provide insight into the unique factors contributing to the quality of care health professionals give to the aged. Again, the study will offer the management of the respective hospitals the enormity of the problem (health professional's knowledge, attitude, and practice of geriatric care) and put in measures to address them

Keywords: Health practitioners, geriatrics, knowledge, attitude, and practice

INTRODUCTION

Health inequalities are a global challenge to policymakers across the globe. It is of particular concern especially to developing countries because of the unequal distribution of the available limited health resources (Emmanuel Kobina Mesi Edzie et al., 2021; Spieler et al., 2022). Geriatrics which is a branch of medicine and social sciences deals with the study and care of the aged or the elderly. The population of the elderly, can defined in several themes including chronology, comorbidity, and frailty. Chronologically, they are the group greater than sixty years of age. Clinically, they are a population of interest because of the deterioration in health which affects the pharmacology of drugs used in such populations and the special care they need (Singh & Bajorek, 2014). Aged care inequalities can span from financial, and physical, to professional accessibility. Because of the vulnerability of the aged, they require, special care when they visit the general hospital. Geriatric care is a specialty that requires the special training of professionals just like the other specialties in medicine and nursing. Limited knowledge of their need from the part of healthcare professionals compounds their existing vulnerability.

In Ghana, aged care is integrated with our culture where the aged are usually taken care of by the family (Kofi et al., 2017), and professional care for the geriatrics is undergoing a developmental transition that is shifting from the family to health care practitioners. Because of this peculiar situation in our context, training of professionals in the provision of care to such vulnerable is necessary and this study seeks to explore grey areas for education.

The aged population in Ghana has considerably increased over the decade. The growing population and the demand for geriatric care calls for policy direction that seeks to train specialized professionals in the care of the aged (Essuman & Mate-Kole, 2021). About

two million of the population in Ghana are sixty years and above (aged). Out of this population, 341,960 elderly persons are living alone with 62,480 out of that number being eighty (80) years and older²⁴.

Even though some studies (5) have tried to explore the issue of aged care in Ghana, some focused on the determinants of their choice of health facility and barriers to health care utilization (Aboh et al., 2019; Salia et al., 2022). Using a qualitative approach, Adatara and his colleagues found that, the aged encounter some challenges in accessing outpatient healthcare services (Adatara & Amooba, 2020). These challenges include inadequate information, queuing frustrations, and financial burdens (Atakro et al., 2021).. Others also expressed frustration meted to them by health professionals and it includes non-compassionate care by health professionals, neglectfulness by caregivers, inattentiveness, discrimination, and stigmatizing toward the aged by health care professionals¹¹. Participants also showed displeasure with the disrespectful attitude of professionals shouting or yelling, making participants feel invisible, or not distinguishing participants from younger patients (Issahaku & Sulemana, 2021). Such experiences demotivate the aged from utilising medical facilities and may promote the usage of alternative medicine which if done unsupervised can be detrimental to the health of the aged. This calls for the assessment of health practitioner's attitudes and perceptions toward geriatric care.

Some studies have attempted to assess knowledge and perception towards geriatric care using student nurses and medical students which showed that, the majority of them have poor perception and attitude towards geriatric care (Attafuah et al., 2022) and few medical students have no interest in pursuing further studies in geriatrics (Karikari et al., 2021).

There is a paucity of information on practicing health practitioners in geriatrics. Knowledge

of such professionals is to help policymakers in designing effective re-education seminars in bridging the knowledge gap to improve the services they provide to the aged. The current study therefore seeks to explore the knowledge, attitude, and practices of health care practitioners on effective geriatric care services in Kumasi, Ghana.

Design

The study will use cross-sectional survey which will span two months. Cross-sectional studies capture information about a particular population at a single point in time (De Vaus, 2002). This method was considered the most suitable since the study was aimed at obtaining how much health practitioners know (Knowledge), do (practice), and think (perception) as well as the challenges of geriatric care in Ghana.

Study setting and target population

The study will be conducted in the Ashanti region of Ghana. The region has 35 districts and 6 municipalities. After Accra, Kumasi is the second-largest city in Ghana. It is a multicultural community with a variety of socioeconomic and cultural pursuits that is well-positioned in the middle of the nation. The study sites will be Tafo Government Hospital, Suntreso Government Hospital, and Kumasi South Hospital. All of these study sites are polyclinics in Kumasi with respective disciplines in medicine, and surgery, among other specialties. The Suntreso Government Hospital is located within the Bantama sub-metro in the West of Kumasi which serves about 53 communities, with a population of about 395,152. The bed state of the hospital is currently 134 with about 340 staff personnel spanning the spectrum of health professionals. Tafo Government Hospital is a primary hospital located in Manhyia North Sub-metro providing services to a population of about 252,983. The staff strength of the hospital is 177

including Clinical and paramedics. The hospital provides 24-hour services which include the following; Out-Patient Department Services, Inpatient Services, Maternal services, Surgery, Specialist Services (Skin and Obstetrics/ Gynaecology), Laboratory, X-ray and Scan, and Public Health Services (GHS 2021). All three polyclinic hospitals run chronic care clinics which are meant for managing chronic diseases like hypertension, and diabetes among others, which mostly have a higher prevalence in the aged. In addition, the three hospitals also have infectious disease centres which manage chronic infections like the human immunodeficiency virus (virus) and tuberculosis (TB) which also have the aged population. Although, together with the general outpatients, the estimate for the aged attendance is difficult to know, the population forms a significant population of the outpatient department (OPD) care.

Inclusion criteria

- I. Participants must be certified medical doctors, physician assistants, or nurses.
- II. Participants must have at least one year post-training working experience.
- III. Participants must be someone who gives direct clinical care in the facility.
- IV. Participants should willingly agree to participate in the study and sign the informed consent form.

Exclusion criteria

- I. Participant who is a student or intern.

Sampling technique and tool

Two sampling methods will be used for data gathering, including both stratified random and convenience sampling. A convenience sampling technique will be used for the recruitment of study participants at their respective units in the three hospitals. Using an electronic (online) structured questionnaire, participants will

respond to questions on knowledge, attitude, practices perception, and barriers to aged care.

Study variables and definitions

Outcome measure: The outcome variable of interest will be the practice of geriatric care. Using existing literature in clinical practice, geriatric will be defined a priori, when persons 65 years and older will be considered. Practice will be implementing the knowledge acquired and this will be considered as either good or bad based on the interquartile range.

Knowledge: Understandings make up knowledge. It is also the ability to imagine and how one perceives. Relative to geriatrics, knowledge construct will be defined as relatively good information about the aged. It will be done by the use of the Knowledge about Older Patients Quiz (KOP-Q) (Dikken et al., 2016, 2017) which is a unidimensional scale that consists of 30 true or false items to measure nursing students' knowledge in the care of older adults. Participants will be classified as either having good or bad knowledge in geriatrics when they score more than the median value.

Perception: Relative to geriatrics, perception will be defined based on professionals' sense of working with the aged which is premised on the framework provided by Nolan (Nolan, 2006). This will be a dichotomous variable defined as either good or bad perception based on the interquartile range.

Attitude: An attitude is a perspective or manner of being. Leanings or "tendencies to" are what these are. This variable exists in between the situation and the action taken in reaction to it. The variable will be defined by health providers' reaction towards the care of the aged which will be based on the Kogan attitude towards old people scale (Kogan, 1961). This will be a dichotomous variable based on the interquartile range.

Sampling, Sampling technique, and tools

A stratified simple random sampling technique will be adopted to select study participants. At each facility, qualified participants will be given an equal chance of being selected for the study. Participants will be selected randomly every three days at each hospital over six hours to increase the likelihood of caring for older patients at different service delivery points such as OPDs, consultation rooms, and wards. With a total nurse population of 417 across the three hospitals, the general sample size for the study was calculated using the formula¹⁵. The sample size calculation formula developed by 15 emphasizes the total study population, with a 0.05 or 5 percent margin of error (See Stage I). To further deduce the sub-sample sizes of the three Public hospitals in Kumasi city, the formula¹⁴ that emphasizes the sub-sample sizes and population of each of the three hospitals, total sample size, and total population of the study was used (See Stage II). The distribution of the sample size by the three hospitals in Kumasi city is shown in table 1.

$$n_{ss} = \frac{N_{RP}}{1 + N_{RP}(\alpha_E)} = \frac{417}{1 + 417(0.05)^2} = \frac{417}{2.0425} = 205 \text{ Nurses} \dots \text{Stage I}$$

where

n_{ss} = Sample Size

N_{RP} = Study Population

α_E = Level of Precision

Sub-sample size calculation:

Table 1: Distribution of Sample Size of Nurses by Public Hospitals in Kumasi Metro

Public Hospital, Kumasi	Population (Nurses)	X(S)/P	Sample Size
Tafo Government Hospital	136	136(205)/417	67
Suntreso Government Hospital	139	139(205)/417	68
Kumasi South Hospital	142	142(205)/417	70
Total	417	417(205)/417	205

However, in the case of the doctors and physician assistants, purposive sampling technique will be used to recruit all accessible doctors and physician assistants at all three study sites, since the total population of this sub-population at each respective setting is less than 30.

Consequently, the total sample size will be 205 (nurses) + 26 (medical officers) + 26 (physician assistants) = 257

After the eligibility of direct clinical staff who have a working experience of more than one year has been determined, the primary researcher will seek their consent and proceed to collect the study data.

Using an electronic (online) structured questionnaire, participants will respond to questions on sociodemographic variables, knowledge, attitude, practices perception, and barriers. A 5-point Likert scale will be employed with the responses: Strongly Agree (SA), Agree (A), Neutral (N), Strongly Disagree (SD), and Disagree (D) as well as space for short answers for the study variables, except the demographic variable. These scales were adapted from

already existing, validated scales that measure each of the respective study variables

Data Management and Validation

Data will be collected electronically and will be retrieved as an Excel spread sheet and cleaned to ensure that the data is devoid of all double entries. Data will be exported to STATA version 14 for statistical analysis. All scales measuring the various study variables have already been tested for their validity.

Statistical plan

Where appropriate, descriptive statistics such as means, frequencies, and standard deviation will be used to characterize the data. Normality testing will be carried out to guide the statistical tool to be used. Unless otherwise specified, the alpha level for all significant values in the study was set at 0.05, with a 95% confidence interval. Pearson’s chi-square test will be used to assess the associations between the various background variables and the dichotomized outcome variables. Subject to the normality of the distribution, inferential statistics will be used to examine the study objectives.

Ethical considerations

Ethical approval for the study has been sought from the Committee on Human Research and Publication Ethics (KNUST). Permission to conduct the study has been sought from the regional health directorate and the respective hospitals where the study is to be conducted. All ethical principles guiding the conduct of scientific studies, including autonomy, confidentiality, and non-maleficence, will be ensured. Informed consent will be obtained from study participants before questionnaire administration and participation in the study will be entirely voluntary.

Expected results

The study is envisioned to produce results that will adequately describe the knowledge of health care providers (doctors, nurses, and physician assistants) on aged care, as well as their attitude and practices towards this population. The study is also expected to provide information on the relationship between the demographic variables of respondents and the other independent variables in the study. Further, the relationship between the independent variables is expected to be established by the study and ultimately, the study is expected to provide empirical evidence of the barriers to effective aged care in the metropolis

DISCUSSION

Research seeking to establish new knowledge can appropriately be done with positivist ideology. It is known that reality is objective and can be represented by tangible symbols, and perceived by the senses. Therefore, the choice of a descriptive quantitative approach is an ideal design for this study. The chosen method will help to take a snapshot of the study population and to gain more insight into the phenomenon under study of the target population more economically within a relatively short period. It is however important

to state that the timing of cross-sectional studies may not guarantee a full representation of a population and cannot establish a causal effect of a particular phenomenon¹⁴. Subsequently, it is expected that a systematic process in determining the level of knowledge, attitude, and perception of health care providers on aged care is followed. Steps will be taken to avoid biases with data collection using stratified random and convenience sampling techniques to select respondents for the study, to ensure the population under study is fairly and truly represented. Earlier studies undertaken on similar populations on the study phenomenon have used the chosen design, which yielded positive results (Abudu-Birresborn *et al.*, 2023; Amegbor *et al.*, 2018; Karikari *et al.*, 2021).

AUTHOR'S CONTRIBUTION

Conceptualization: Emmanuel Amoateng, Manasseh Bannor Wireko, and Henry S. Opare-Addo.

Data analysis: Emmanuel Amoateng.

Data acquisition: Emmanuel Amoateng.

Methods: Emmanuel Amoateng, Manasseh Bannor Wireko and Henry S. Opare-Addo.

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Writing – review & editing: Emmanuel Amoateng, Manasseh Bannor Wireko, Augustine Yaw Assah, and Henry S. Opare-Addo.

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