

International Journal of Psychology (IJP)

**Personal and Societal Influence in Career Choices and Pathways among
Graduate Nurses in Low and Medium-Income Countries: A Case Study of
Pwani University, Kenya**

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Personal and Societal Influence in Career Choices and Pathways among Graduate Nurses in Low and Medium-Income Countries: A Case Study of Pwani University, Kenya



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Article History

Received 9th August 2023

Received in Revised Form 20th August 2023

Accepted 31st August 2023



How to cite in APA format:

Omwenga, S., Amimo, F., Mbutia, N., & Ondieki, J. (2023). Personal and Societal Influence in Career Choices and Pathways among Graduate Nurses in Low and Medium-Income Countries: A Case Study of Pwani University, Kenya. *International Journal of Psychology*, 8(3), 39–42. <https://doi.org/10.47604/ijp.2082>

Abstract

Purpose: While nurses comprise a significant component of human resource for health (HRH), their shortages, especially in low- and middle-income countries (LMICs), have greatly contributed to the persistent poor health outcomes and poor progress towards attaining universal health coverage. There is limited understanding of personal and societal factors that influence graduate nurses' decisions when choosing a career path in nursing after training, especially in LMICs. Understanding how these graduate nurses decide on their career path is critical in informing future policies on attraction and retention in PHC.

Methodology: An empirical study established graduate nurses' career choices and pathways trained at Pwani University, Kenya. Quantitative and qualitative data collection involved an online self-administered questionnaire followed by individual in-depth interviews of selected participants to better understand the experiences behind their career choices.

Findings: From the study, there was a significant statistical relationship between respondents' university entry status and current job ($p= 0.02$). Majority of those who had direct entry were in private sector (42%) while majority of those who upgraded were in public sector (24%). The study results show that mentorship (58.9%) and parental influence (33.9%) were significant factors that influence career choices. Other factors that motivate individuals to choose nursing include the love of the physical nature of the profession, a desire to be part of a noble profession, exposure to caregiving, relatives in the nursing profession, and previous experiences with illness. The study also showed that most nurses work in hospital services and prefer urban locations due to the availability of personal growth opportunities and job prospects.

Unique Contribution to Theory, Practice and Policy: A unique finding in this study is that work location is a strong determinant in attraction and retention especially for graduate nurses working in public facilities. The study therefore recommends offering personal growth opportunities and incentives for nurses working in rural and remote areas to increase nurse attraction and retention in public healthcare. The current study further recommends a longer cohort follow-up study to be conducted, incorporating larger sample sizes from various settings to compare pertinent influencing factors among these groups.

Keywords: *Personal, Societal, Career Choices, Pathways, Nurses*

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INTRODUCTION

Human Resources for Health (HRH) remains a very significant component of primary health care (PHC), representing the largest single public spending on healthcare services globally (Reifler, & Dykens, 2016). HRH has been prominently featured in current literature as a major contributor towards strengthening health systems, especially in low- and middle-income countries (LMICs) (Reifler, & Dykens, 2016; United Nations, 2016; World Health Organization, 2018a). Nurses form a large proportion of HRH and are the main professional component in the delivery of healthcare. Their contribution to PHC has been acknowledged as crucial in delivering effective healthcare (Dawson, Nkowane, & Whelan, 2015), with a strong association between nurse appropriate skill mix and desired health care outcomes (Wakaba *et al.*, 2014). While increasing the nurse-patient ratio has been associated with improved health care outcomes, increasing specifically the number of Bachelor of Science in Nursing (BSN) graduates has been linked with better improvements in patient health outcomes (Jang & Oh, 2019; Nantsupawat, Kulnaviktikul, & McHugh, 2015).

Global health care workforce shortage has been cited as a significant contributor towards missing out on the millennium development goals (MDGs) (Bhatt, Giri & Koiral, 2010); an issue that, if not addressed, may prove to be a stumbling block towards the achievement of Universal Health Coverage (UHC). The ability to attain and sustain universal health care depends largely on recruiting and retaining nurses in primary health care (Halperin & Mashiach-Eizenberg, 2014). However, there is limited understanding of the experiences that influence nurses' decisions to choose a career in nursing after training.

Informed by the need to have adequately prepared and more competent nurses to meet the dynamic healthcare needs of its people, Kenya, like many other LMICs, introduced the Bachelor of Science in Nursing (BSN) program. It surged the production of highly skilled staff for the much-needed primary health care (Mullei *et al.*, 2010). Despite this effort, there is still a big gap in the absorption and retention of degree nurses in primary care facilities, with a shortage of BSNs in primary care facilities hitting 50% by 2016 (Kenya Health Workforce Report, 2017). According to the Kenya Health Workforce Report (2017), a small portion of BSN-trained nurses ended up in primary health care, a trend that is likely to persist if not addressed and leads to the severe shortage of high-level skilled nurses in primary care facilities.

Factors influencing career decisions play a crucial role in BSNs deciding to take a career in PHC or not. If these factors are well understood, they will facilitate reforms to attract and retain degree nurses in PHC. Studies on nurses have elicited relevant insight on the factors influencing career decisions and pathways of nurses. In a study by Robson A & Robson F (2015), he found out that decisions to remain in a nursing career were linked to a combination of factors, including the importance of the work and work-family conflict. Other studies have identified related factors including perceived organizational support (Masters & Liu, 2016), an initiative for professional development (Bruyneel *et al.*, 2017; Duffield *et al.*, 2014; Kenny, Reeve, & Hall, 2016; Nowrouzi *et al.*, 2016), career satisfaction (Masters & Liu, 2016; Osuji *et al.*, 2014), and a suitable working environment (Abou & Hashish, 2017; Kenny *et al.*, 2016; Laschinger, 2012). Factors influencing the decision to opt-out of career include the inability to cope with work-family conflicts (Chen *et al.*, 2015; Shacklock & Brunetto, 2012; Yamaguchi *et al.*, 2016), lack of initiative for personal development (Tummers, Groeneveld, & Lankhaar, 2013) and heavy workloads (Havaei, MacPhee, & Dahinten, 2016).

While these studies offer vital information on factors influencing career choices and pathways of nurses, how these factors specifically influence graduate nurses remains unclear; hence the need for exploratory studies focusing specifically on graduate nurses to understand how these factors interact to influence graduate nurses' career decisions. Little attention has been paid to assessing personal and societal factors influencing graduate nurses' career choices and their implications in attracting and retaining those nurses in PHC. Moreover, there is limited literature on the factors influencing career choices and pathways of graduate nurses from LMICs. Comprehensive data is required to establish regional health care workforce needs, targets, and plans to increase the supply of health professionals (Chan *et al.*, 2017). This data will provide unique evidence useful in reforming nursing practice and nursing education. This study, therefore, aimed to examine the personal and societal factors that have influenced career choices and pathways for graduate nurses trained in Pwani University, Kenya, and the implications they have in their attraction and retention to PHC.

Statement of the Problem

Nurse staffing has been correlated with health outcomes, with poor healthcare outcomes being attributed to inadequate skilled and competent nurse-staff to handle the complex and increased healthcare needs (Ly *et al.*, 2016). In Kenya, nurses have always dominated the health workforce, with their proportions in HRH vital in determining, to a greater extent, the transferable health outcomes associated with positive changes in HRH (Pozo-Martin *et al.*, 2017). Recent studies have identified domains of primary health care practice, identifying the role of degree trained nurses with renewed interest in primary health care, including preventive care, care management, practice operations, management of chronic illness, and transition care with improved health outcomes (Wilkinson, 2015; Smolowitz *et al.*, 2015).

HRH production, absorption, and retention have been major issues in health systems, especially LMICs. The current nurse shortage is a global concern, with healthcare shortage hitting 7.2 million in 2016 (Miseda *et al.*, 2017). Based on the data from the Kenya Health Workforce Report 2015, Kenya had a nurse to population ratio of 8.3 nurses per 10,000 populations as of 2015, a value that is far below the WHO recommended 25 nurses per 10,000 populations. Despite the increased production of BSN nurses, their absorption and retention remain persistently low, indicating many trained BSNs that remain unabsorbed into the health care system. Understanding the factors that influence graduate nurses to choose and remain in nursing as their career path is of great importance in informing future attraction and retention strategies in LMICs.

METHODOLOGY

Study Area Description

The study involved degree nurses who graduated from Pwani University since the inception of the nursing degree program. These nurses were expected to be working in different locations, and therefore, this study included all accessible nurses eligible for the study. Pwani University was selected as a study area because it represented a rural setting, and it was purposefully selected because it was close to the research institution hence easily accessible. Additionally, Pwani University has research collaboration MOU with the research institution making it easier/possible to access its research data.

Research Design

The study is a descriptive, exploratory cross-sectional survey to establish the career pathways of the nurses trained at Pwani University and the factors that have influenced their career pathways. Exploratory cross-sectional survey was preferred because it provides a comprehensive overview of a population's attitudes, beliefs, and behaviors. It is an efficient way to quickly explore a wide range of topics, allowing researchers to get a better understanding of the population they are studying. Additionally, the design is relatively inexpensive and can be completed quickly.

The first phase of the primary data collection was conducted Between February and March 2019. Eligible participants for the study were all BSN nurses who completed their degree from Pwani University within five years. Contact information was accessed from the university database, and this was used as a primary means of contacting the nurses. Snowballing was used to identify graduates whose contacts were missing. The participants were contacted primarily by phone and were requested to provide current email addresses for the questionnaire. Written consent was sent through their emails, together with the online self-administered questionnaire. Those who completed the questionnaire were considered to have consented to take part in the survey. The self-administered questionnaire was used in assessing demographics as well as the current employment status, designation, and place of work. All the participants were asked to fully complete the questionnaire and email it back within one week. To increase the response rate, the participants were contacted frequently to follow their progress and give timely feedback in case they had any questions.

In phase 2, 8 graduate nurses were selected from the group that completed the self-administered questionnaires to participate in the in-depth interviews. This was after the phase 1 nurses were categorized into strata based on various characteristics identified from the responses in the completed questionnaires and to ensure non-repetitiveness. The categories included: Graduate Nurses working in rural public health facilities (stratum 1), Graduate Nurses working in urban public health facilities (stratum 2), Graduate Nurses working in private health facilities in clinical nursing positions (stratum 3) and Graduate Nurses that completely left nursing (working in community-based or non-profit based organizations, research institutions, educational institutions, business persons and any other non-clinical/ non-health related field).

The participants were selected based on their availability and consenting to participate in in-depth interviews. Appointments were made through phone calls. The sample identified was sent a written consent to participate in in-depth interviews to examine the factors that have influenced their career decision and their perception of the strategies to attract and retain graduate nurses in primary care. Using a semi-structured interview guide, in-depth face-to-face or telephone interviews (where feasible) were conducted with the graduate nurses to explore the following issues: Reasons for choosing their current career, Experiences in their current career and Reasons for intentions to change/remain in their current career sector or facility. The interview guide was, however, structured flexibly to allow for any other emerging issues. The interviews were conducted after completing and analyzing the quantitative responses by April 2019 and were administered in English. The interviews took approximately one and half hours to allow time for interviewer probing. Interviews were conducted and audio-recorded, and later transcribed by the researcher.

Sample Size Determination

The target population included all graduate nurses who completed their Bachelor of Science in Nursing (BSN) or Bachelor of Science in nursing and public health (BSNPH) training from Pwani University between 2016 and 2018. The program offers training to direct entry and upgrading students in four years and three years, respectively.

Fischer's formula was used to calculate the sample size. The study adopted the formula as follows; $n = \frac{Z^2 P(1-P)}{I^2}$.

Where:

n is the sample size [where population > 10,000]

Z is the normal deviation at the desired confidence interval. In this case, it was taken at 95%, Z value at 95% is 1.96

P is the proportion of the population with the desired characteristic.

Q is the proportion of the population without the desired characteristic.

I² is the degree of precision; it was taken to be 10%.

Since the proportion of the population with the characteristic is not known, then 50% was used such that;

$$n = \frac{1.96^2 \times 0.5(1-0.5)}{0.1^2} = 96$$

Since the target population is <10,000, the sample adjustment was made using the following formula.

$$nf = \frac{n}{1 + \frac{n}{N}}$$

Where:

nf is the desired sample size for a population <10,000

n v calculated sample size

N is the total population

Therefore;

$$nf = \frac{96}{1 + \frac{96}{219}} = 66.7$$

Thus, the desired sample size (nf) was 67 respondents.

Data Analysis and Quality Control

Returned questionnaires were assessed for completeness, counterchecked, and cleaned, ready for analysis. The soft copy questionnaires were stored in a password protected computer to ensure security and privacy of the data. De-identification was done by assigning serial numbers to each questionnaire. Recorded interview audios were also transferred to the computer and serialized based on the interview date and interviewee for anonymity. They were then checked for clarity and completeness before they were handed out for transcription.

RESULTS

Demographic Characteristics

A total of 58 out of the 67 participants responded to the questionnaires making a response rate of 90%. Five of the filled questionnaires were incomplete, while two people turned down the request to participate. The incomplete questionnaires were not included in the descriptive analysis. Participants were asked to provide information regarding their gender, marital status, and date of birth. Their age was calculated from the date of birth.

Table 1: Demographic Characteristics of the Respondents

Entry type	Age, gender, and marital status					
	Mean Age	Male	Female	Married	Single	Total
Direct entry	26.2	30 (51.7%)	15 (25.9%)	11 (19.0%)	34 (58.6%)	45 (77.6%)
Upgrading	43.4	1 (1.7%)	12 (20.7%)	9 (15.5%)	4 (6.9%)	13 (22.4%)
Grand Total	*	31 (53.4%)	27 (46.6%)	20 (34.5%)	38 (65.5%)	58 (100%)

Table 1 above illustrates the age distribution, gender, and marital status of the 58 participants based on entry type. A majority of the respondents (45; 77.6%) were direct entry nurses while 13 (22.4%) were upgrading nurses, and their mean age was 26.2 years and 43.4 years for direct entry nurses and upgrading nurses, respectively. Male nurses were a majority of the respondents, with a proportion of 53.4% (n=31). 65.5% (n= 38) of the respondents were single while 20 (34.5%) were married.

Nursing as the First Choice

This part required respondents to state whether nursing was their first-choice career when joining college/university.

Table 2: Nursing as a First Career Choice

Entry type	Nursing as the first choice		Statistics and p value
	Yes	No	
Direct entry	28 (48.3%)	17 (29.3%)	$\chi^2 = 0.21$ df= 1 p= 0.64
Upgrading	9 (15.5%)	4 (6.9%)	
Total	37 (63.8%)	21 (36.2%)	

There was no significant statistical relationship between entry type and nursing being first choice of career (p= 0.64). Overall, most of the respondents (37; 63.8%) had selected nursing as their first career choice. 48.3% (n=28) were direct entry nurses while 15.5% (n=9) were upgrading entry nurses as shown in table 2. Other courses selected as the first choice included medicine, biochemistry, pharmacy, nutrition, and engineering.

Current Facility Sector

Participants who responded as employed in the employment status section were asked to state the type of sector where the facility belonged. Respondents were given options to include Academia/healthcare research, private for-profit, private not-for-profit/Non-Governmental Organization, Faith-Based Organizations (FBO), and the public sector as shown in table 3.

Table 3: Facility Sector

Type of Entry	Facility Sector				Statistics and p value
	Academia/research	Private for-profit sector	Private not-for-profit/NGO/FBO	Public sector	
Direct entry	4 (12%)	8 (24%)	6 (18%)	4 (12%)	$\chi^2 = 9.54$ df= 3 p= 0.02
Upgrading	1(3%)	1(3%)	1(3%)	8 (24%)	
Grand Total	5 (15%)	9 (37%)	7 (21%)	12 (36%)	

Table 3 shows that most respondents were in the private sector (58%), followed by the public sector (36%), and the least from Academia/Health Research. There was a significant statistical relationship between respondents' university entry status and current job ($p= 0.02$) whereby more direct entry nurses were employed in the private sector, 42% compared to upgrading (6%). On the other hand, more upgrading nurses were employed in the public sector (24%) than direct entry counterparts (12%).

Who Influenced Your Decision to Become a Nurse?

Respondents were asked to report the person who significantly influenced their choice of nursing. The results are represented in figure 1 below.

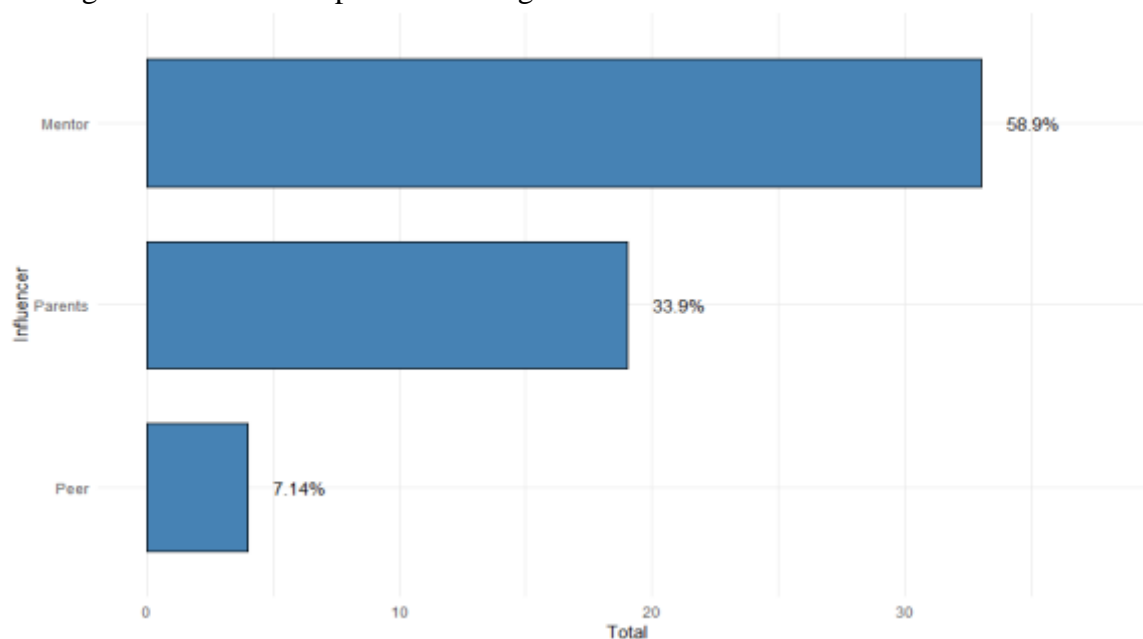


Figure 1: Who Influenced Your Choice of Nursing

Figure 1 above shows that most of the respondents (58.9%) were influenced by their mentors (Rather than parents) to undertake a nursing career. 33.9% were influenced by their parents, while their peers influenced about 7.2%.

Reasons for Choosing Nursing as a Career

In a phone interview with the selected individual, participants gave many reasons for choosing to nurse as a career. These included parental motivation and support, mentorship from peers and relatives, the certainty of securing a job easily, and for others, it was for the love of the physical nature of nurses. For some, however, the desire to pursue nursing developed due to the high value that the community accorded to nurses and hence wanted to be part of a noble

profession. Growing up in a hospital neighborhood allowed some participants to mingle and get exposure to health care providers, which triggered the desire to be nurses. This is demonstrated by the comments below.

“I just liked nursing because as I grew up, I was going to the hospital, and nurses were seen as those people who heal, who provide healing. Another important thing is that my parents also were motivating me, ‘Ooh, we want you to be a Daktari (doctor)’ ... And even the community around also they value somebody who is a doctor, Daktari (doctor) that is how the nurses were being called in the community.” (Health Research)

“I grew up in, immediate neighborhood there was a hospital, And then when you enter inside the hospital you could see the work they were doing and that time I believe that they were doing what was best for everybody. And then again, of course, when you are young, the only thing that you knew was either nursing or teaching because now teachers, you are there with them, and nursing is that they are your neighbors and you are there with them now and then.” (Primary care nurse)

Influence from relatives and neighbors who were nurses themselves was reported by an overwhelming majority of the nurses to have motivated them to choose a nursing career. However, others reported failing to attain the pass mark to pursue medicine and hence selected nursing as an alternative health-related course, as demonstrated by the comments below.

“Initially I wanted to do pharmaceutical technology, but then I discussed with my aunt who is a nurse, yeah and she told me nursing was... nursing could be better than pharmaceutical technology coz with nursing you can advance in terms of specialization and all that yeah” (Public Primary care nurse)

“I have some few individuals who had pursued nursing ... they gave me the positive stuff about nursing career. I didn’t get the points to do medicine, so I opted for another medical course.” (Private Primary care nurse)

“From high school, I did not want to be a nurse, I wanted to be a doctor, a medical doctor, but unfortunately, I scored an A grade. I missed just a point to get government sponsorship. So, this made me chose a course that is closely related to medicine.” (Health-related Academia)

For some participants, their prior experiences of losing a loved one, caring for a sick relative, or seeing their relative suffering from common diseases influenced their desire to care for the sick. However, for others, the experience of having observed patients either being mistreated or neglected in health care facilities triggered the urge to join nursing and be role models in providing quality health care services.

“I think what made me go for nursing...I lost my dad at a time when I was in, and I was wondering if there was a way I could have stopped that from happening.”

“In High school, ...one of our colleagues who had had an injury by then, so when we went to (X) hospital, we found women who had stayed on the labour they were at the casualty, delivered on the floor. Somehow something just triggered me that one day, I needed to either go to the medical field” (Public primary care nurse).

“My mother was diagnosed with diabetes, and that was after going to several hospitals and upon several misdiagnoses that were when they finally diagnosed her with diabetes and this was after she was wasted and diabetes had already eaten her up, and she had cataract. So, after I saw my mother had suffered for a long time, I just decided I would do a medical

course, which is nursing so that I can go into this medical field and help people get well when they have this condition” (Private primary care nurse).

In addition to social expectations, some participants expressed an inherent desire to help the sick, resulting from prior experience and exposure to nursing care in their earlier school years. They developed the desire to care for the sick.

“I think it was more of a social drive so that I can be in a position to help many people. I acknowledge my foundation to me pursuing nursing to our school nurse. And I think I found myself in a rare position where I was part of succession where I was groomed to become dispensary captain there was a bit of push to think in terms of areas of medical” (Health care researcher).

Decision-Related to Work Location

It was worth noting that most of the nurses were brought up in rural settings, but most participants worked in urban settings. Those who resided in urban settings attributed it to the availability of personal growth and advancement opportunities, better social infrastructure, accessibility to technology, availability of job opportunities, and easy access to learning institutions. One nurse articulated that her stay in an urban setting offered her more exposure and experience limited in rural settings.

“The reason as to why I chose to work in an urban area is because I wanted to advance in terms of my career and sometimes you find that when you are in the rural areas is not so easy to access the learning” (Public hospital service nurse)

The majority of nurses denied any influence of their age, family, or marital status on their choice of location. However, some nurses repowered that being young, single, and not having children allowed them to move freely without concern for family and children. These nurses admitted to accepting offers even in hostile remote locations easily compared to when they were married and had children. This is illustrated below.

“I am currently single, not married, I don’t have any baby, so, I can say I don’t have anything tying me down, I can easily move from place to place, but I will understand in case I had a baby or I was married it would be harder for me because now I would to start relocating together with my family. But currently, I don’t have any burden I’m freelance” (Public primary care nurse)

Discussion

This study shows that nursing was the first choice for most participants, with a considerable proportion having selected medicine as their first choice. However, the findings of this study contradict the findings of a study conducted on the South African nursing Cohort, which indicated that medicine was the first career choice for most nurses (Ditlopo & Blaauw, 2014). The major motivations for a nursing career were mentorship and parental influence. Other reasons for choosing a nursing career are certainties of employment, negative experiences, the community's high value accorded to nursing, family members advice as well as personal desire due to previous encounters. A study by Alboliteeh *et al* (2022) came up with similar findings whereby they noted that nursing students career choice was determined by their parents. Similarly, Dos Santos (2020) found out that; parents, family members and social expectations influence nursing students major course selection. Despite the fact that majority of these students find the course unpleasing to them, they just pursue it to the end because most institutions do not have an option of changing. In a study by Kallio, Kangasniemi & Hult

(2022), registered nurses stated that their personal desire of service to humanity as well as the honourability associated with the profession influenced their decision to become nurses. Most of the participants preferred working in urban settings as compared to rural areas. This finding is supported by a study conducted on the scarcity of clinicians in the rural areas and job preferences of both doctors and nurses in India, which indicated that most nurses, including those trained in the rural areas, are likely to accept job offers in the urban areas, or facilities close to urban areas (Krishna *et al.*, 2013). This study also supports the factors that influence nurses' choice of work location. Participants in this study indicated that urban areas have more job opportunities, access to technology, opportunities for career growth, and social infrastructure than rural areas. However, our findings are contradicted by the findings of other studies. A study conducted by Silvestri-Elmore, Alpert, Kawi, & Feng (2018) found that nurses who spent much time in rural settings are more likely to practice in rural areas.

Most graduate nurses in this study demonstrated a willingness to work in the private sector instead of the public sector. Factors cited for the preference of the private sector included availability of ample working environment, equipment, better learning opportunities, unavailability of jobs in the public sector, and the bureaucracy associated with the public sector. Other studies mirrored these findings, indicating that nurses in the private sector are more satisfied with their jobs (Ditlopo & Blaauw, 2016).

Conclusion

The study found out that most nurses work in private and public sectors, and only a few careers in Academia/Research. Most nurses prefer working in urban settings due to the availability of personal growth and advancement opportunities, better social infrastructure, accessibility to technology, availability of job opportunities, and easy access to learning institutions. The current study concludes that mentors and parents influence career choices and pathways for graduate nurses. Other factors that affect most individuals to choose a nursing career include the certainty of securing a job quickly, the love of the physical nature of nurses, the desire to be part of a noble profession, exposure and interaction with caregivers, relatives in the nursing profession, nursing being an alternative health-related course to medicine, previous experiences of losing a loved one to illness and caring for the sick.

Recommendations

- Healthcare organizations should encourage experienced nurses to mentor and guide new nurses. Furthermore, health organizations can organize outreach programs to educate parents and high school students about nursing as a career and its significance in public health.
- Public healthcare organizations can improve nurse attraction and retention by offering incentives such as accommodation, transport, and better working conditions to nurses working in rural and remote areas.
- This study recommends strategies to enable rural nurses' access to basic infrastructural facilities that enhance personal advancement.

Limitation of the Study

The major limitation of this study is that it only targeted participants from a single institution. The information given by the participants may not be a true representation of the views of nurses from different universities and localities.

Ethical Considerations

The study was permitted by the Kenya Medical Research Institute (KEMRI)'s Scientific and Ethics Review Unit (SERU). Ethical approval for data collection process was approved by the Jaramogi Oginga Odinga University of Science and Technology Ethics and Review Committee. Clearance to research the area was obtained from Pwani University, and written permission to access the graduate nurse's database was obtained. Study participants were only allowed to proceed with the study provided they electronically signed the consent form. The participants were provided with study information sheets detailing the purposes of the study, duration of the study, terms of their consent, and the contact details of the principal investigator. Persons who voluntarily agreed to participate were considered to have read and consented to the study. Separate consents were requested from participants who took part in the qualitative interviews. All the information obtained from the participants was kept confidential and anonymous. No personal identifying information was collected.

Acknowledgement

Much thanks to the respondents of this study for accepting to participate and providing insightful information that led to the development of this work.

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