

**WHEN STUDENTS MAKE GENDER-UNTYPICAL EDUCATIONAL  
CHOICES:**

**WOMEN IN ENGINEERING AND MEN IN NURSING**



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## ABSTRACT

Both males and females face forms of gender stereotypes in their everyday lives, right from the workplace to homes. Gender stereotypes have also found their way into educational institutions of which universities are no exception.

This thesis, based on a two-month-long fieldwork in Ghana in 2021, centralizes on gender stereotypes. It divulges the experiences, challenges and study situations of male nursing students and female engineering students at the University of Ghana. Nursing and Engineering are two very gender stereotypical courses and career paths. Conceptualizations of gender such as Gender as a Social Construction, Gender Ideologies and Gender Roles will act as frameworks in explaining the various experiences of respondents as well as the reasons behind their current study situations.

This thesis addresses the research question: *How do gender stereotypes influence the study situation for students making gender-untypical educational choices at the University of Ghana?*

The main objectives of this research are:

1. To explore the reasons behind male nursing students and female engineering students choosing such gender-untypical programmes.
2. To divulge the experiences of male nursing students and female engineering students.
3. To identify the coping strategies of these students.

The qualitative methodological approach was applied in this study. Data was collected via semi-structured interviews. A total of 31 respondents participated. The study identifies that gender ideologies, the social construction of appropriate behaviour for both men and women, play important roles in the educational choices and eventually career paths of students. Some students who make gender untypical educational choices, particularly the men studying nursing, raise brows and are often subjected to ridicule. The women studying engineering on the other hand, have their femininity questioned. The findings of this study reveal that gender stereotyping still exists even in the academic society. The gender-untypical students i.e., men in nursing and women in engineering, come up with strategies to cope with the negative gender stereotypes they face. These include ignoring stereotypical attitudes and defending themselves against such negative stereotypical behaviours.

Although the country has come far in bridging gender disparity gaps and archaic gender roles, certain traditional gender ideologies are still deeply entrenched in the lives and choices of the average Ghanaian. This study seeks to contribute its quota to the gender discourse.

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All pictures were taken by the researcher during the fieldwork. The image on the cover page was drawn by the researcher.

## **ABBREVIATIONS**

GNC	General Nursing Council
KTC	Kumasi Technical College
KNUST	Kwame Nkrumah University of Science and Technology
LPN	Licensed Practical Nurses
LVN	Licensed Vocational Nurses
SRN	State-Registered Nurses
STEM	Science, Technology, Engineering and Mathematics
TTI	Tarkwa Technical Institute
UMaT	University of Mines and Technology
WHO	World Health Organization

# CHAPTER ONE

## INTRODUCTION

Gender is one of the major principles of differentiation through which society is organized (Lorber, 1993), and it is constructed through cultural, psychological and social means (West & Zimmerman, 1987). Gender shapes our lives by influencing the roles we play in society, defining our responsibilities as well as what is regarded as appropriate behaviours for both men and women. According to Alstad (2018), these roles, responsibilities and expected behaviours are rooted in the specific context of social organisation and cultural norms, beliefs and values, and they have an effect on the distribution of tasks, resources and benefits in society. Simply put, gender is how society perceives an individual to be.

The main aim of this thesis is to divulge *how gender stereotypes influence the study situation for students making gender-untypical educational choices at the University of Ghana*. This will be achieved through highlighting the motivation, experiences (challenges and opportunities) and coping strategies of male nursing and female engineering students. The experiences of both female nursing and male engineering students will be included for comparison and deeper understanding. Drawing on gender theoretical concepts, this thesis will explain how the current study situations of the targeted study population align with gender stereotypes.

### 1.1 Gender Stereotypes in Tertiary Institutions

Gender Stereotyping is a generalised view or preconception about attributes or characteristics, or the roles that are or ought to be possessed by, or performed by women and men<sup>1</sup>. These gender stereotypical attitudes can be harmful as they have the tendency to inhibit an individual's capabilities and life goals. Connell (1995/2005) postulates that gendered norms and behaviours reinforce gender stereotypes because in most settings, gender norms are taught and learned rather than being innate. In most societies, men are usually characterized as *agentic*, taking charge and being in control, and women are characterized as more *communal*, interested in people and building relationships (Broverman et al., 1972; Eagly and Steffen,

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• <sup>1</sup> United Nations Office of the High Commissioner – Human Rights  
<https://www.ohchr.org/EN/Issues/Women/WRGS/Pages/GenderStereotypes.aspx>

1984). These two concepts, communal and agentic, which were first introduced by Bakan (1966), as fundamental motivators for human behaviour, have undergone further descriptions during the last decades (Hentschel et al., 2019). Agentic characteristics refer to “masculinity,” “instrumentality” or “competence” and communality, on the other hand, refers to “communion,” “femininity,” “expressiveness,” or “warmth”. These concepts have been considered fundamental to gender stereotypes (ibid.).

Gender stereotypes are ubiquitous (Bosak et al., 2018). Choices we make and our daily activities and experiences are shaped by societal beliefs on what is gender appropriate. Reflexively, most students make educational choices based on what reflects societal perception of their gender. Those who make gender untypical educational choices tend to stand out.

Nursing and Engineering are two very gender stereotypical courses and career paths (Jarman et al., 2012; Makarova et al., 2019). Mention a nurse or a nursing student and without reflection, a woman comes to mind and this is same for an engineering student or an engineer (Makarova et al., 2019; Ozdemir et al., 2008). Florence Nightingale, a prominent figure in the field of nursing, considered nursing as a suitable job for women because it was an extension of their domestic roles (Ozdemir et al., 2008). Nightingale’s image of nurse as a subordinate, nurturing, domestic, humble, and self-sacrificing stem from the gender stereotypical ideas of what a woman is and should be. Her perception, many historians and scholars believe, have entrenched the feminization of nursing (DeVito, 2016; Ozdemir et al., 2008). Some blame her for the problems and ridicule men in nursing face as according to her ideals; men do not possess nurturing, caring, dependency, and submissive qualities (Bartfay et al., 2010; DeVito, 2016; Evans, 1997). In a study conducted in Ireland and the United States, male nursing students expressed the negative stereotypical attitudes they faced regularly. At times both staff of their faculties/schools and outsiders made it obvious they were not the ‘right gender’ for the course (Keogh & O’Lynn, 2007). This made them uncomfortable in their respective universities (ibid.). Bartfay and Bartfay (2017) also noted that, male nursing students in Canada are confronted with stereotypical attitudes in class and on the ward. They did not feel like they were a part of the class and field. They were often singled out and had faced discriminations and negative criticisms from both instructors and outsiders.

Engineering, on the other hand, strongly identifies with the male gender role (Robinson & McIlwee, 1991). This course and career path stresses the importance of technology over personal relationships, of formal abstract knowledge and logical reasoning (especially

advanced and complicated mathematics) over inexact humanistic knowledge, and ultimately of male over female traits (Hacker, 1981). This field, according to Hacker (1981) places high value on rational and logical thoughts over emotions. Hence, identifying logical reasoning with the male gender role, and emotion with the female gender role. Engineering taught in tertiary institutions particularly emphasizes mathematics, as the most complicated and pure form of mental activity, and the most *masculine* of subjects (Robinson & McIlwee, 1991). With the popular stereotype of the male as a more logical being over a female, it is little wonder that the field of engineering is male dominated and heavily stereotyped. A study in Canada and Germany divulged that even female engineering students themselves, perceived their courses as ‘masculine’ (Ertl et al., 2017; Stoilescu & McDougall, 2011). This perception, the researchers noted, had caused low self-esteem amongst them (ibid.). This stereotype that engineering is masculine is also present in Turkish engineering schools. Thus, few women willingly study engineering (Zengin-Arslan, 2002).

## **1.2 Gender Stereotypes in Ghanaian Tertiary Institutions**

As Kuenyehia (1995) emphasizes, life in Ghanaian society is organized around an unwritten social contract, ‘the gender contract’. Within this contract, women are to assume domestic functions and childcare whereas men are to assume leadership and breadwinning roles. This gender contract, which in turn feeds gender stereotypical attitudes, have (un)consciously wormed their way into Ghanaian tertiary institutions. From staff to student levels, these stereotypical attitudes influence roles one should play as well as one’s educational experiences. In a study conducted by Boateng (2018) female lecturers in the sciences attested to facing stereotypical attitudes in their departments. One respondent said that people in her department saw her as only ‘fit’ for teaching in primary or secondary schools. Male lecturers, on the other hand, are often stereotyped as perpetrators of sexual harassment (Sagoe, 2020). The 2019 BBC *Sex for Grades* documentary<sup>2</sup> further escalated this stereotype.

Male students, are expected to be more technologically inclined as compared to the female students. From observation during my undergraduate years in the University of Ghana, it was almost a norm for the males to do the typing while females gathered information, during group work which involved both genders. It was perceived that the men were deft at using the laptop

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<sup>2</sup> <https://documentaryheaven.com/sex-for-grades/>

and computer software. I asked friends in other universities and it was the same issue, i.e., men type and women gather the information.

### **1.3 The Study Area: University of Ghana, Legon – Nursing and Engineering Schools**

The University of Ghana popularly known as Legon or UG among Ghanaians, served as the study area for this research. Situated in the nation’s capital, Accra, it is often referred to as *the premier university*. It was founded in 1948 as the University College of Gold Coast upon the recommendation of the Asquith Commission on Higher Education in the then British colonies. Informed by colonial policies, access to higher education by Africans was limited until the end of World War II. The founding of the University of Ghana was therefore the denouement of struggles and protests of nationalist movements which advocated for an African system of higher education in the former Gold Coast. The University attained sovereign status with the authority to offer more comprehensive programmes and award its own degrees, on October 1<sup>st</sup> 1961, by an Act of Parliament<sup>3</sup>. Over the years, the University of Ghana has evolved into one of Africa’s leading universities and gained worldwide recognition.

Two schools in the University were the central focus of this study: The School of Nursing and Midwifery and the School of Engineering Sciences.



Figure 1 Campus of the University of Ghana.

Source: Fieldwork (2021).

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<sup>3</sup> University of Ghana Prospectus (2019).

## 1.4 The School of Nursing and Midwifery

It was first established as a Post Basic Nursing institution in 1963 as a World Health Organisation (WHO) project at the request of the Ministry of Health. The School's initial focus was on the preparation of Diploma awarded Nurse Tutors for basic nursing training institutions. It further added certificate courses in Nursing Management in July 1970 and diploma courses in Nursing Service Administration in 1971<sup>4</sup>.

In 1980, the School changed from Post-Basic Nursing Department to Department of Nursing, and placed under both the Faculties of Science and Social Studies. However, in July 15, 2003, the Department was upgraded into a School and made a constituent of the College of Health Sciences by the University Council. In the 2016/2017 academic year, the School's name was changed again to School of Nursing and Midwifery (SONM). The Nursing School has academic departments: Department of Mental Health Nursing, Department of Community Health Nursing, Department of Maternal and Child Health Nursing, Department of Adult Health Nursing, and the Department of Research, Education and Administration<sup>5</sup>.

The School of Nursing and Midwifery, is currently one of the popular health departments in the University.



Figure 2 The School of Nursing and Midwifery

Source: Fieldwork (2021).

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<sup>4</sup> <https://nursing.ug.edu.gh/node/55>

<sup>5</sup> <https://nursing.ug.edu.gh/node/55>

## 1.5 The School of Engineering Sciences

The School of Engineering Sciences was established in 2004<sup>6</sup>, with the Department of Material Science and Engineering as part of its foundation departments<sup>7</sup>. Prior to the School's establishment, the Departments of Agricultural Engineering, Computer Engineering and Biomedical Engineering already existed<sup>8</sup>. These departments were added to the School of Engineering Sciences in 2004. Over the years, the Department of Food Process Engineering was founded under the Engineering School. Thus, the Engineering School, like the Nursing School, comprises of five academic departments.



*Figure 3 The School of Engineering Sciences*

*Source: Fieldwork (2021).*

As aforementioned, these two schools served as the central study area for this research. They are schools with very distinct gender gaps and stereotypical attitudes. Women in engineering and men in nursing form the minority gender. Such students, in the course of this research will be referred to as gender-untypical students meaning that they are studying courses that are not common of their gender.

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<sup>6</sup> [https://www.ug.edu.gh/agric-eng/about/brief\\_history](https://www.ug.edu.gh/agric-eng/about/brief_history)

<sup>7</sup> [https://www.ug.edu.gh/mse/about/brief\\_history](https://www.ug.edu.gh/mse/about/brief_history)

<sup>8</sup> [https://www.ug.edu.gh/ce/about/brief\\_history](https://www.ug.edu.gh/ce/about/brief_history)



## **1.6 Research Question, Objectives and Structure of Thesis**

The purpose of this study is to divulge how gender ideologies and stereotypical attitudes influence the experiences of male nursing and female engineering students in the University of Ghana. These experiences include both challenges and coping strategies associated with studying either nursing or engineering. Thus, the research question for this study is:

*How do gender stereotypes influence the study situation for students making gender untypical educational choices at the University of Ghana?*

The research question will be supported with the following objectives:

- 1. To explore the reasons behind male nursing students and female engineering students choosing such gender-untypical programmes.*
- 2. To divulge the experiences of male nursing students and female engineering students.*
- 3. To identify the coping strategies of these students.*

A two-month long fieldwork in the University of Ghana, was conducted for the purpose of this study. Qualitative data was gathered via semi-structured interviews. The data was then transcribed verbatim, in order to capture the thoughts and experiences of the respondents. Conceptualization of gender such as gender ideologies and gender roles will be used in explaining the experiences of the respondents.

This thesis is divided into seven chapters with Chapter One focusing on Introduction. Chapter Two tackles the theoretical concepts relevant to this study whereas Chapter Three is a compilation of existing literature pertinent to this thesis. Chapters Four, Five and Six address the Methodology applied, Findings, and Discussion respectively. Chapter Seven, the concluding chapter, will sum up the entire work.

## CHAPTER TWO

### THEORETICAL FRAMEWORK

In order to fully understand the experiences of men in nursing and women in engineering, it is important to incorporate gender perspectives or theories. Gender perspectives were included in geographical research by feminist researchers in the 1970s as a critique of the male bias in the geographic discipline (Dixon and Jones, 2006). Gradually, gender perspectives have evolved into becoming central scopes for geographical research. This chapter will present gender related concepts applicable to this study.

#### 2.1 Gender

Gender pervades everyday life (Kessler & McKenna, 1985; Lorber, 1994). It is a major means of categorization in every society (Lorber, 1993). Gender is the social, psychological and cultural construction of what it is to be a man or a woman (West & Zimmerman, 1987). Moore (1988) adds her voice to defining gender by including the concepts of *space* and *time*. According to her, gender is the different ways in which men and women, and the accepted attributes of masculinity and femininity, are defined across space and time. These include norms, behaviours and or roles associated with being a man or a woman, as well as relationships with each other in a particular geographic location during a period of time<sup>9</sup>. Gender is so deeply rooted in our daily activities to the extent that it shapes our experiences, lives and opportunities (Acker, 2006). Ruble, Martin & Berenbaum (2006) equally assert that virtually all of our functioning as humans have gender attached to it i.e., our activities at home and at work aspirations, communication, mannerisms, temperament, and values. According to Moore (1988) gender may be viewed as a symbolic construction or as a social relationship. These two aspects are interconnected and cannot be split. *Gender as a symbolic construction* represents the cultural understandings of gender in the form of symbols that differentiate between the categories of male and female. These symbolic categorizations emphasize the differences among men and women like public/private (domestic), reason/emotion and masculine/feminine, and these in turn, structure the essence of gender divisions within a particular society. *Gender as a social relation*, outlines how gender is constituted in a range of social interactions occurring in the various domains of society (like the home, school or work),

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<sup>9</sup> Retrieved from [https://www.who.int/health-topics/gender#tab=tab\\_1](https://www.who.int/health-topics/gender#tab=tab_1)

where gender is considered as a social role. Here men and women have roles they play, as they interrelate with each other. For example, in the home, the woman will be more concerned about the nurturing and feeding of the family whereas the man will be more concerned about the financial stability of the home. These two aspects, Moore (1988) says, are relevant in studying gender.

Dixon and Jones (2006) state that gender can be conceptualized in three perspectives; and it is with these perspectives that feminist geographers conduct their research. These three perspectives are *gender as difference*, *gender as social relation* and *gender as social construction*. *Gender as difference* addresses how spatial contexts shape the different experiences of men and women. This involves roles and norms attached to men and women within a society that creates a distinction between genders, influencing their daily activities. *Gender as social relation* emphasizes how men and women relate to each other in society. *Gender as social construction* involves discourses that create distinctions between genders and the particular meanings which are attached to them. The meanings could be positive or negative or both. This third perspective, reflects the gendered meanings within a society produced and reproduced through languages and daily social activities. Gendered meanings are socially constructed interpretations about ideas concerning what it is to be male as opposed to female (Dickson & Jones, 2006).

Lorber (1994) observes that the social construction of a person's gender starts from birth, on the basis of his or her genitalia. It is from this basis that the individual is socialized in a way that befits the societal construction of their gender. The style of dressing, leisurely activities and even manner of speech, are all socialized into the individual on the basis of their gender. In the typical Ghanaian community for example, girls are taught domestic chores such as cooking and home management. Per the Ghanaian construction of what it is to be a female, being deft at home keeping and cooking is very important. The boys on the other hand are taught to be bold and less empathic. In the Ghanaian society, being a man is synonymous to being tough physically and mentally. Gendered meanings are socially determined and structured within specific places and vary across space (Dickson & Jones, 2006; Crawley, Foley, & Shehan, 2008). This thesis will be drawing on the conceptual perspective of *gender as difference* and *as social construction* as it seeks to divulge how mainstream societal gender ideologies influence the study situation of men in nursing and women in engineering in the Ghanaian context.

## 2.2 Gender Ideologies

Gender ideologies are mainstream norms and values in a society, regarding gender appropriate behaviours (McDowell, 1997). Simply put, they are attitudes people have regarding the appropriate roles, rights and responsibilities of men and women in the society (Davis & Greenstein, 2009). These attitudes and norms which are deemed appropriate for each gender, are culturally shaped and historically and spatially positioned (McDowell, 1999). Culture plays an important role on how we perceive gender and how we expect each gender to behave. There are distinctive roles and characteristics women and men are supposed to play and portray in the typical Ghanaian society. Women are supposed to be submissive to their husbands and elderly men in the family and society. They also have to be deft at domestic chores like cooking, cleaning and housekeeping. Men on the other hand, must be assertive and dominating. They have the responsibility to protect women and children since society considers them (women and children) as vulnerable. It is the man's responsibility to support the home financially and make sure there is order in the household. In the society, he is not expected to be overly emotional; he should be rational and firm. The Ghanaian society is influenced by such gender norms. Since historical times, the various ethnic groups across Ghana, have always associated women with nurturing and gentleness, and men, with breadwinning and dominance. Women also contributed to the financial upkeep of their homes through petty trading like selling foodstuffs. Women's economic contribution to the home was acknowledged. However, under British Colonial Rule, more value was placed on men than women. The British colonial masters perceived men as leaders and more logically inclined than women. Although women's contribution was not undervalued, men were held in higher regard. Children are socialized with these ideologies and this culture passes down from generations to generations. Although some Ghanaians are changing, for example, accepting men cooking for the home and women contributing more to the home's financial stability, there still remains an attachment to gender ideologies. Nurturing and feeding still remain a woman's primary responsibilities.

Gender ideologies influence the career paths of people (McDowell, 1997). People mostly pursue career paths that reflect mainstream societal gender ideologies. Career paths also reflect the educational choices of an individual. Thus, gender ideologies influence the educational choices men and women make. This is why it is 'gender-appropriate' for men to pursue engineering; per societal standards, engineering embodies masculinity. Engineering is rigorous, both mentally and physically, and according to societal gender ideologies, this characterizes a man. Likewise, it is 'gender-appropriate' and therefore typical for women to

pursue nursing; it embodies femininity. The societal or cultural gender ideologies describe women as nurturing and compassionate. Hence it becomes a ‘problem’ when one pursues a gender untypical educational choice and career path (ibid). Gender ideologies are subjected to changes over time. Gradually, people are becoming more receptive of men performing domestic chores and women, being the main source of financial support to the family unit. This study will imbue gender ideologies from the Ghanaian society perspective in analysing the various experiences of men in nursing and women in engineering.

### **2.3 Gender Stereotypes**

Gender stereotyping is the practice of ascribing specific attributes, characteristics, or roles to a woman or a man<sup>10</sup>. Gender stereotypes reflect general expectations and perceptions society has of men and women. Thus, gender stereotypes are a build-up of gender ideologies; gender stereotypes are as a result of gender ideologies. Gender stereotypes stem from traditional social roles and power inequalities between women and men (Eagly, 1987). Gender stereotypes also originate from the categorization of men and women into social roles both in the home and at work (Eagly, 1987, 1997; Koenig and Eagly, 2014). As aforementioned in the previous chapter, societal mainstream norms perceive men as agentic. Agentic means being in control, having physical and mental strength, and self-assertion. Women, on the other hand, are characterized as more *communal* i.e., they are interested in people and building relationships, they are selfless, and they provide warmth and care for others (Broverman et al., 1972; Eagly and Steffen, 1984; Kite et al., 2008). These distinctions, i.e., agentic and communal, according to Bakan (1966) and Parsons (1955), are relevant in theoretical discussions on gender. Thus, every man is expected to be strong and assertive whereas every woman, is expected to be warm and caring. Men and boys are often stereotyped to be risk takers and aggressive. Women and girls, on the other hand, have to be cautious and docile. Hence, deviating from these common societal perceptions of what it is to be male or female, is not considered to be “normal”. This deviation from stereotypes is referred to as stereotype disconfirmation (Ellemers, 2018; Förster et al., 2000). Individuals who disconfirm gender stereotypes face challenges. For example, in some corporate workplaces in Ghana, women who are assertive and dominating, are characterized as being bossy and unfeminine by their colleagues (see Amakye, Chimhutu & Darkwah, 2021). In the Ghanaian society, men who are not assertive and display passiveness are ridiculed as

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<sup>10</sup> Retrieved from <https://www.ohchr.org/en/issues/women/wrgs/pages/genderstereotypes.aspx>

being unmanly and weak. The problem with stereotypes is that they have the tendency to inhibit an individual's capabilities or realization of certain goals/aims. These capabilities or aims include educational choices and career paths. Trusz (2020) affirms this by stating that gender stereotypes are sources of varied expectancies concerning the educational achievement of females and males.

Cultural transmission of gender stereotypes, to some extent, are responsible for gendered courses, academic performances and educational experiences (Li, 1999; Nguyen & Ryan, 2008; Robnett, 2016; Spencer et al., 1999; Tiedemann 2000; Watson et al., 2017; Trusz, 2020). Since gender stereotypes eventually form part of a people's culture, it becomes almost an unwritten rule for men to favour certain educational programmes or career paths over others. Likewise, women will favour certain career paths or educational programmes over others. In this case, engineering and nursing are fitting examples. More women than men are likely to choose nursing and more men than women are likely to choose engineering. The experiences of men in nursing will be different from that of women in nursing. Nursing generally has more women than men because of the cultural transmission of gender stereotypes. This can be said of engineering as well. Women in scientific, technological and mathematical fields usually face discrimination because of gender stereotypes. The gendered nature of engineering and nursing, reflect gender stereotypes. Nursing reflects the communal nature of women while engineering reflects the agentic nature ascribed to males. Hence, men who pursue nursing and women who pursue engineering, face challenges because they have deviated from the "normal" gender stereotype.

## **2.4 Gender Roles**

Gender role theory encompasses the distinct roles or activities men and women play that are normative for each sex (Eagly, 1987). They are the behaviours men and women are to portray in accordance with gender ideologies. Most societies define the unique roles that men and women should play and eventually these roles become normalized, forming a part of culture. Thus, men and women "do gender" i.e., performing roles as a set of sex-typed behaviours that they learn to display in social interaction (West & Zimmerman, 1987). We constantly "do gender" in our everyday lives and interaction with others (Lorber, 1994; West & Zimmerman, 1987). Pleck (1981) and O'Neil (1982) argue that gender roles are culturally defined on the basis of cultural gender norms rather than as emanating from an intrinsic biological masculine

or feminine essence. People are socialized with these distinct gender roles from childhood. Gender roles account for the divisions of household labour, job segregation, and gender differences in society. West and Zimmerman (1987) construe that gender roles support the division of labour into women's and men's work as the foundation of gender difference. Traditional gender roles align women with the "caretaker" roles and males, with the "breadwinner" roles (Kray, Howland, Russell, & Jackman, 2017).

Historically, men and women have always been assigned to labour that aligned with their physical attributes (Harrison & Lynch, 2005). Harrison and Lynch (2005) state that economical, ecological, social and technological pressures in the past, are responsible for this division of labour. Thus, men were assigned tasks that required speed, strength, and being away from home for long periods of time. Women on the other hand, were primarily responsible for childbearing and nurturing. Hence, they were assigned tasks related to home and family. As a result of this division of labour or tasks, gender roles developed, concerning expectations about the characteristics or behaviours of men and women in society (ibid.). Consequently, men are expected to fulfil the masculine gender role that reflects agentic traits and women are expected to fulfil the feminine gender role that reflects communal traits (Wood & Eagly, 2002).

Currently, more men than women, are concentrated in roles that emphasize power, competition, or authority (Harrison & Lynch, 2005) such as engineering and owning corporate organizations; this is congruent with their gender role of being agentic. Women are more dominant in roles that involve caring or giving support, and human interactions (Eagly, 1987; Eagly, Wood, & Diekmann, 2000) such as nursing and childcare education. Although gender roles are subjected to changes over time (Lorber, 1994; Silverman, Auerbach & Levant, 2002), quite a majority of Ghanaians still hold attachment to the typical societal gender roles. There is still a pronounced distinction in the roles that Ghanaian men and women play. Men are to take on breadwinner roles or roles that involve taxing mental and physical strengths. Women on the other hand, have to take on nurturing roles or activities that include providing sustenance and or emotional support. Drawing inference from Overå's (2017) research on the gendered nature of Ghana's oil and gas industry, it was observed that activities directly connected with the offshore oil industry; logistics, warehouses, maintenance facilities and security were assigned mostly to males. Men dominated such areas. Women on the other hand, were mostly assigned to the secretarial jobs, positions of human resources officers, caterers or housekeepers in canteens, offices, and staff houses. This case provides evidence of how traditional gender roles are still present in the modern Ghanaian society. The discussion in this study will involve

the application of gender role theory in explaining the roles male and female nursing students perform in the wards or clinical sessions.

## **2.5 Gender Role Strain**

The theory of gender role strain posits that stress occurs when demands and life circumstances conflict with beliefs about a person's gender roles (Acosta, Andrews III, Acosta Canchila, & Ramos, 2020). Gender role beliefs and gender ideologies are most likely to lead to serious distress under conditions in which those beliefs are threatened or conflict with other demands (Levant, 2011). Pleck (1981) equally notes that attempts to conform to these traditional gender roles consequently leads to psychological stress rather than to psychological well-being. A classic example as illustrated by Levant (2011) is believing that men should be primary breadwinners and simultaneously having wives who earn more than they do. In the traditional Ghanaian society, this situation could be problematic for the man. According to traditional Ghanaian gender norms, it is a man's primary responsibility to support the home financially. Although a woman can contribute financially, the man has to contribute more if he is not handicapped. However, the burden of being the family's main source of financial stability wears him down when he does not earn an appreciable income as his wife does. Asking his wife to take over his role becomes hard as per Ghanaian gender ideologies, that is not a manly act to do. He then becomes stressed; providing for the home with his meagre income and not being able to ask for huge assistance from his wife because of traditional gender ideologies on masculinity. The gender role strain theory has proved useful in research on minority groups (see Acosta et al., 2020) and masculine ideologies (see Levant, 2011). The theory will be applicable in analysing the study situation of both men in nursing and women in engineering.

## **2.6 Gender Division of Labour**

Gender division of labour describes the way each society divides work among men and women, according to socially-constructed gender roles or what is considered suitable for each gender<sup>11</sup>. This does not only focus on paid work, but on the responsibilities and tasks that are assigned to men and women in their daily lives as well. Mainstream societal ideologies expect men and

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<sup>11</sup> <https://archive.unescwa.org/gender-division-labour#:~:text=The%20division%20of%20labor%20refers,and%20valuable%20for%20each%20sex>



women to engage in work that reflects stereotypical traits, i.e., agentic work for males and communal work for females. Hence, work at home, school, and workplaces have been divided according to gender. Even in gender untypical professions, the untypical gender is expected to take on tasks that reflect their gender. For example, men in nursing are usually tasked with carrying patients as well as other tasks that demand the use of physical or mental strength. Scholars are concerned about gendered division of labour as it reinforces gender stereotypes (Charles & Lopez, 2017). Since men and women are assigned specific gender roles, it becomes typical or normal for them to play such roles. This consequently becomes a stereotype. The nursing profession is a classic example of gendered division of labour reinforcing gender stereotypes. Because the profession has been associated with the female gender role and femininity, it has been stereotyped as a career path solely for women.

Although gendered division of labour is susceptible to change over time and space (Mediterranean Institute for Gender Studies, 2010), individuals in society are still attached to what is considered appropriate work for men and women. Gender Division of Labour will be relevant in analysing the different work or tasks men in nursing and women in engineering perform in their respective settings.

## **2.7 Gender Dichotomy**

Gender dichotomy is the socially constructed idealized opposite concepts of femininity or masculinity (Reimann, 2014). The concept of gender itself manifests along a strict dichotomy of socially accepted constructions of masculinity and femininity (Azzarito & Solmon, 2009; Fisette, 2011; Ratna, 2011; Walton & Fisette, 2013). In our daily activities, there is a divide between what is feminine and what is masculine. For example, the term 'private' is ascribed to femininity whereas 'public' is ascribed to masculinity. Reason is linked to masculinity whereas emotion, on the other hand, is linked to femininity. Between the terms culture and nature, the former is attached to masculinity and the latter, femininity. Even in academia, gender dichotomies are inadmissible. The sciences and humanities have been divided according to gender. The former is associated with masculinity and the latter has been ascribed to femininity. This gendered dualistic thought is socially constructed. Individuals are socialized with gendered dichotomies from childhood. The concept of gender dichotomy will be beneficial in explaining why certain tasks in the nursing field are divided between both male and female nursing students.

## **2.8 Intersectionality**

The theory of intersectionality, birthed from feminist scholarship, inculcates multiple dimensions to studying gender. Kimberlé Crenshaw developed the concept of intersectionality, a term she coined to describe how certain traits overlap or intersect to bring about either privileges or discrimination (Coaston, 2019). These traits include age, disability, physical appearance (such as height and weight), race, religion, sexuality, and social class (Valentine, 2007; Yonce, 2014). The concept of intersectionality is also seen as the way in which any particular individual stands at the crossroads of multiple groups, i.e., social class, religion, physical appearance (Minow 1997 in Valentine, 2007). Intersectionality proves that the daily experiences of men and women in society cannot be explained solely by their gender. There are traits, as aforementioned, that interconnect with one's gender to shape their experiences, be it positive or negative.

Robnett (2001) asserts that the theory of intersectionality encircles a methodological approach which is critical to the study of social phenomena. It has been pivotal in the study areas that focus on the family, race and ethnicity, social stratification, organizations, work and welfare. This study will include how the intersectionality of social class and family influence the experiences of male nursing students on the University of Ghana campus. This in turn will prove that gender alone is not responsible for the challenges individuals face in society; there are also certain traits that intersect within an individual's identity which are responsible for his/her experiences. Although the theory of intersectionality has been criticized as ambiguous (Davis, 2008), it is instrumental in interrogating a researcher's blind spots and transforming them into analytic resources for critical analysis and more comprehensive insights (Zaami, 2010).

In sum, this chapter is formed on the basis of feminist theoretical approach, where understanding concepts of gender are pivotal in analysing human interrelations and the differing experiences of men and women in society. The aforementioned theories will be used in relation to the Ghanaian context.

## CHAPTER THREE

### A REVIEW OF LITERATURE

#### 3.1 Gender, Colonialism, Higher Education and the Ghanaian Society

The mainstream societal norms in Ghana recognizes male and female as the only genders. The typical Ghanaian society is based on the power structure of patriarchy. This patriarchy cuts across all ethnic groups in the country. Although women play equally important roles in society, men are regarded to be superior. Being superior means that the man has to exhibit the model of masculinity; he has to be strong mentally and physically. He has to work, earn and provide for the home (Amoakohene, 2004). The woman on the other hand, has to display the model of femininity; she ought to be empathetic and nurturing. The task of managing the home is her responsibility (Ampofo, 2001). According to some scholars, Ghanaian patriarchy is responsible for gender inequality and concomitant unequal power, social values, entitlements, and roles (Sikweyiya et al., 2020). This patriarchy further constructs a cultural model of masculinity that is most widely recognized as ideal and superior to the other masculinities (Connell, 1993; Sikweyiya et al., 2020). Connell (1983) describes this as hegemonic masculinity. Here, males whose masculinity are superior to other males are respected and serve as aspirations to the other men. For example, in the Ghanaian society where men have to be more financially stable in the home, men who are able to provide adequately for their homes and are financially stable, are admired and respected by other men who are struggling to do so.

The colonization of Ghana buttressed traditional patriarchy. The Victorian rules under which the British operated, deemed men as superior to women. Women had to be submissive to men. The traditional patriarchy had similar perceptions too; men are superior and women must be submissive to them. Boateng (2018) asserts that the legacies of colonialism still form the basis of which most African universities operate, with Ghana, being no exception. Tsikata (2007) affirms this by emphasizing that the University of Ghana is shaped by both colonial (historical) and socio-cultural (traditional patriarchal) factors. The colonialists' conception of education saw universities as the preserve of men, and for many decades, women were restricted from accessing higher education (Boateng, 2018). This colonialist conception of education validates Smock & Smock's (1975) argument that colonialism caused the limited access of women to higher education while allowing men to hold most top-level professional and administrative positions. These colonial perceptions, according to several African scholars (Assié-Lumumba, 2005; Mama, 2003; and Tsikata, 2007) are responsible for the gendered nature of campuses

across the African continent. Although women were eventually given the opportunity to pursue higher education, their courses were tailored to reflect their gender. Under Victorian rules, men were the heads of households whereas women were subordinates (Prah, 2002). Ultimately, colonization ensured that all courses and career paths that involved leadership and logical reasoning, were pursued by men and courses that reflected the identity of women as passive and nurturing, were pursued by women (Mwiria, 1991); girls were trained to go into home science, nursing, or teaching, while boys were trained to go into engineering, medicine and science (Baryeh, Obu, Lamptey & Baryeh, 2000).

### **3.1.1 Nursing Education During Colonization**

Ghana is a former colony of Great Britain. Under British Colonial Rule, Ghana was known as the Gold Coast. The British ruled the Gold Coast from 1821 to 1957 (Ahuma, 2013). The British controlled all affairs of the people and sectors of the economy, exploiting the resources of the indigenous people. On the 6<sup>th</sup> of March 1957, the colony gained independence from the British. The name Gold Coast was later changed to Ghana.

Nursing in colonial Ghana was initially a male occupation (Ewusi, 1989). The colonial medical officers acknowledged the need to provide health services to the natives of the Gold Coast (Opare & Mills, 2000). They recruited male orderlies to provide healthcare to the indigenous population (Akiwumi, 1971; Osei-Boateng, 1992; Twumasi, 1979). Male orderlies were recruited because the traditions of the indigenous population, did not permit young girls to nurse non-relatives, especially male non-relatives (Twumasi, 1979). However, in 1899, the first British nursing sisters arrived in the Gold Coast (Addae, 1997; Akiwumi, 1970). After their arrival, a few ladies entered the nursing profession although men still formed the majority (Akiwumi, 1970, 1988). Ewusi (1984) notes that there was a significant increase in the number of female nurses and midwives from 1952 to 1988. The population of nurses and midwives increased from 1352 in 1952 to 21,300 in 1988.

The British nursing sisters gave lessons to the nurses, both males and females. These lessons included human anatomy and physiology, surgical and medical nursing, and first aid. Nurses who completed this training successfully were awarded a Director of Medical Services Certificate and became second division nurses in the colonial service (Akiwumi, 1988). In 1928, a new maternity hospital was established in Accra. Women were recruited to its midwifery school. Women were recruited for this midwifery course because it reflected their

gender and was closely aligned with the traditional roles of women in society (Akiwumi, 1971). Prior to colonization, in the traditional communities, women, particularly the elderly and experienced, supervised births.

Prior to 1945, all senior nurses and nurse tutors in the Gold Coast were British women (Akiwumi, 1971). This pattern later changed in the years following 1945 (Opere & Mill, 2000). In January 1945, Isobel Hutton arrived from Britain to establish a nursing training school, moulded after the British system, for Ghanaian nurses (Boahene, 1985; Osei-Boateng, 1992). Initially, this training school for State-Registered Nurses (SRNs) was located in Kumasi. However, in 1948, the school was moved to Accra close to the Korle-Bu Hospital (Addae, 1997; Kisseih, 1968). Although most practicing nurses in the country at the time were men, only women were eligible to enter the new college for SRNs (Addae, 1997; Patterson, 1981). Although historical documents do not give any explanation for this gender shift in the preparation of nurses for practice, it is assumed that it could be Hutton's influence on nursing education (Opere & Mill, 2000). The syllabus the nursing school used was made by the General Nursing Council (GNC) of England and Wales, and this was to ensure that "locally trained nurses could be accepted for registration in Britain, to undergo post-basic courses there and eventually to take over the nursing duties of the country from the British colonial nursing sisters" (Kisseih, 1968, p. 206).

### **3.1.2 Nursing Education After Independence**

After gaining independence, there were some changes in nursing education. During colonialism, the aim of nursing education was to train nurses to work in a hospital-based curative health system. This aim gradually shifted to a broad-based education that prepared nurses to work in a variety of settings. In 1963, Ghana became the leader in nursing education in Africa. Ghana was the first independent African nation to establish the first university-based diploma programme (Opere & Mills, 2000). The World Health Organization (WHO) provided financial support for nursing education in Ghana. This support, however, was accompanied by the influential opinions of British and Canadian nursing experts (ibid.). With Florence Nightingale's influence on nursing in Europe and the Americas (Bartfay, Bartfay, Clow, & Wu, 2010), it could be postulated that these experts reflected her ideologies in the Ghanaian nursing education. Docia Kisseih and Ayodele Akiwumi, were the first generation of female

Ghanaian nurse leaders who left indelible marks in the nursing education (Opare & Mills, 2000).

Currently, nursing education in Ghana, is still influenced by Florence Nightingale's ideologies; sanitation and nursing reduce mortality, dedication and selflessness in the profession (Adu-Gyamfi & Brenya, 2016). However, these ideologies included her opposition to men in nursing (DeVito, 2016). Her gender discriminatory ideals coupled with societal perception of femininity (nurturing, serving, compassionate), could be held responsible for the stereotypic attitudes attached to nursing. The agentic nature society ascribes to masculinity and the general perception of nursing as feminine, are not "compatible", per societal standards.

### **3.1.3 Engineering Education in Colonial and Post-Colonial Ghana**

Engineering in colonial Ghana traces its roots to the establishment of the Achimota College. The school was founded by the British Colonial masters together with natives and chiefs of the Gold Coast in 1924 but it was formerly opened in 1927 (Williams, 1962). The aim of its establishment was to provide general secondary education, teacher training, and technical education for male students (Williams, 1962; Woets, 2016). Engineering was part of the courses taught at the College.

In a bid to expand engineering and technological education, the Kumasi College of Technology (KCT) was established in 1952, with 200 teacher training students transferred from the Achimota College (Woets, 2016). The Tarkwa Technical Institute (TTI) was established during the same year. However, it was officially commissioned in 1953<sup>12</sup>. The Tarkwa Technical Institute was affiliated to Kumasi College of Technology.

The KCT School of Engineering was founded in 1952 (Kennedy, 1966). This new department was modelled after the British system for engineering and technological schools (Dzisah, 2003). In 1955, the University of London approved the standard of the faculty as being equivalent to the London external B.Sc. in Civil, Mechanical and Electrical Engineering. The first graduates received their degrees in 1959 (Kennedy, 1966). According to Kennedy (1966), the School of Engineering received faculty status in 1960 and the first internal degrees were conferred in 1964. During that time, the minimum entrance requirements to the four-year internal (U.K. moderated) Bachelor of Science degree course were "A" level passes in

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<sup>12</sup> <https://www.umat.edu.gh/index.php/about-umat/umat-main/university-history>

Mathematics and Physics, with "O" level in Chemistry. The first two years were allocated to studying a general engineering course after which students had two years to specialize in Civil, Mechanical or Electrical Engineering.

After independence, the Kumasi College of Technology was transformed to into a university status by an Act of Parliament in 1961. Hence, the name was changed to Kwame Nkrumah University of Science and Technology (KNUST), in honour of Kwame Nkrumah, the first president of Ghana<sup>13</sup>. That same year, upon the advocacy of the Ghana Chamber of Mines, the Ghanaian Government incorporated the training of mining technicians and other middle level manpower for the country's mining and related industries, into TTI's curriculum. In 2004, TTI was upgraded to university status by an Act of Parliament and renamed. It became known as the University of Mines and Technology (UMaT)<sup>14</sup>. That same year, the University of Ghana established the Faculty of Engineering Sciences<sup>15</sup>, with the aim of contributing its quota to equipping students with engineering skills.

Ghana underwent educational reforms in 2016 (Dzisah, 2006), to bridge the gap between academia and industry; and to train students with employable skills for economic transformation in the country<sup>16</sup>. Six polytechnics (Accra, Ho, Koforidua, Kumasi, Sunyani, and Takoradi Polytechnics) were upgraded to offer tertiary degrees and higher national diplomas. These polytechnics have begun training some students in engineering (Dzisah, 2006). The Ministry of Education continues to encourage more women in the engineering field; this conforms to attaining sustainable development. Encouraging more women into engineering is a means of achieving sustainable development. The fifth Sustainable Development Goal is concerned with Gender Equality and Women Empowerment. Thus, trying to bridge the gender gaps in engineering education and empowering more women to pursue engineering, aims at contributing to sustainable development of a country. Some universities have also taken it upon themselves to recruit more women into engineering. The University of Mines and Technology adapted a policy called *Gender Mainstreaming*. This policy ensures that women who earn aggregate 36 in their final examination at the secondary education level, gain admission to the school. On the other hand, men with aggregate 10 or 14 may not even be considered (Kilu & Sanda, 2016). The aggregate is a total of the best six grades of the Ghanaian student in his or

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<sup>13</sup> <http://knust.edu.gh/hospital/pages/sections.php?siteid=knust&mid=14&sid=94&id=115>

<sup>14</sup> <https://www.umat.edu.gh/index.php/about-umat-main/university-history>

<sup>15</sup> [https://www.ug.edu.gh/agric-eng/about/brief\\_history](https://www.ug.edu.gh/agric-eng/about/brief_history)

<sup>16</sup> <https://www.africanleadershipmagazine.co.uk/ghana-six-polytechnics-to-be-upgraded-to-technical-university-status/>

her final examination at the secondary education level. Aggregates 6 to 10 imply that the candidate performed excellently during the examinations whereas aggregates 11 to 14 show that the candidate performed quite well. However, aggregate 15 and above mean that the student did not perform so well or performed poorly. Although women are gradually entering the engineering field and being encouraged to do so, they still remain underrepresented because of the notion that engineering is for men.

### **3.2 Challenges of Men in Nursing: Gender Stereotypes and Gender-based Discrimination**

Although historically, nursing was originally a male profession, men face challenges in the field, from school to the wards. The idea of male nurses does not sound “normal” to a large majority of people. Reflexively, the word ‘nurse’ connotes a woman (Bartfay et al., 2012; Ozdemir et al., 2008). Male nursing students and male nurses are confronted with gender stereotypical behaviours and discrimination in their daily lives. This is a global problem.

#### **3.2.1 The Feminized Culture of Nursing**

The feminized culture of nursing negatively influences both male nursing students and professional male nurses. Sherrod (2003) argues that nursing schools run on an educational system that has been designed to educate women. Caring is rudimentary in nursing. Caring in nursing, according to Finnegan (2019), is both an attribute and a skilled set of actions. Since caring and nurturing qualities are attributed to women, male nurses are often stereotyped as incompetent or deficient in these qualities (Zhang & Liu, 2016). O’Lynn (2004, 2007) and Sullivan (2000) equally argue that the feminization of nursing curriculums further reinforces the belief that men are unwelcome in nursing. The feminization of nursing curriculums involves tailoring courses and educational activities to suit women, ignoring the contributions and presence of male nurses. Most nursing curriculums, do not properly acknowledge the history of men’s involvement in the nursing field. In 2017, a Canadian study divulged how the feminized culture of nursing negatively influenced male nursing students (see Bartfay & Bartfay, 2017). With respect to providing care and being empathic, some male nursing students admitted that some of their instructors were not convinced they possessed these qualities. These perceptions caused some of them (male nursing students) to feel secluded and lonely in school. No matter the effort of these male nursing students, the belief that men are not caring enough or empathetic made them feel unwelcome. This feeling of seclusion leads to high levels of role strain and anxiety among many male nursing students (Evans, 2002; Evans, 2004). In this



context, role strain, means not fitting in/feeling unwelcome and or discriminated against because of one's minority status (Egeland & Brown 1989; Milligan, 2001). Tzeng et al. (2009) conducted a cross-sectional survey in one of two universities in central Taiwan. According to their research, role strain was significantly higher among male nursing students as compared to their female counterparts. Role strain can threaten the self-concept of male nursing students, impede achievement of their goals and their success (Flynn & Gooding, 1979; Turnipseed, 1986).

Because men are not viewed as caring or empathetic enough, they are not "allowed" in certain aspects of the nursing field. Williams (2006) found that, many male nurses are denied the opportunity to work in labour and delivery units or nursery units. Although generally, male nursing students and male nurses are not entirely welcomed in the nursing field, areas such as midwifery and obstetrics, are almost no-go areas for them. This is because such fields are perceived as feminine; they strongly align with what a woman embodies. Though some studies have shown that male nurses and/ male nursing students have caring abilities and work well in areas such as midwifery (Codier & MacNaughton, 2012; Mthombeni et al., 2018; Newbold, 1984), society, as well as patients, still strongly associate such abilities to women (Duman, 2012; Finnegan, 2019). Some people/patients have negative perceptions about care provided by male nurses (Adeyemi-Adelanwa et al., 2016; Duman, 2012).

The assumption or idea that all nurses are or should be females not only shows how feminized the field is but highlights discrimination as well. Even though men form the minority in nursing, it is discriminatory to categorize the nursing profession as feminine. This problem is present both inside and outside of the nursing school/environment. Florence Nightingale, the founder of modern nursing, espoused the idea that to be a 'good nurse' was also to be a 'good woman' (Gamarnikow, 1978). This ideology does not include men. Per her ideals, men are not qualified to be nurses. Since most nursing education are based on her ideologies, men in nursing are susceptible to discrimination and stereotypical attitudes. Bartfay and Bartfay (2017), used a phenomenological study to examine the lived experiences of male nursing students in Canada. Among the findings was the popular assumption that all nurses were women. According to the respondents in this study, nursing instructors "assumed" all nursing students were females. Hence, when teaching topics on the female reproductive health, they either brushed through or expected the students to know. The male nursing students were particularly at a disadvantage because of this. A nurse must be conversant with both male and female reproductive systems.

At times, men in nursing face open discrimination because of the popular assumption that all nurses must be women. Some are subjected to harsh treatments such as verbal abuse, emotional abuse and poor working or learning conditions. In the United States, a male nurse who was working with a female supervisor faced constant discrimination from her. From the beginning, the supervisor made him aware that he did not belong to the field; it belonged to women only. He was treated differently from female nurses and was more scrutinized. He was even given a janitor's closet as his office and his former office was redone and given to a female nurse. He was also subjected to abusive language, threats, and false accusations by this supervisor (Legal Eagle Eye Newsletter for the Nursing Profession (2005), as cited in Kouta & Kaite, 2011). He faced discrimination because his supervisor, per her assumptions/ideals, believed that all nurses ought to be women.

### **3.2.2 The Issue of Societal Ridicule: Not Being Masculine Enough**

Men in nursing are often ridiculed in society (Yang et al., 2017). They have to contend with questions about their masculinity and or sexuality (Meadus & Twomey, 2007; Smith, 2006). Usually, societal mainstream norms do not regard men in nursing as masculine enough. At times, men in nursing are seen as effeminate or gay; this privileges hegemonic masculinity (Harding, 2007). A discourse analysis of New Zealand male nurses and male nursing students disclosed how most people assumed they were gay (ibid.). In certain instances, some of them (male nursing students) had been told that they had to be gay to pursue the course. Male nurses on the other hand, had to express their heterosexuality overtly to prove their sexuality. Some male patients were even wary of them; they presumed that the male nurses were gay and may take advantage of them. Men in nursing are met with all forms of negative feedback: ridicule/teasing, being looked down upon, and embarrassment. They are not as appreciated/respected as female nurses are. In 2017, a qualitative study was conducted with the aim of investigating how Taiwanese male nursing students perceived the barriers to their experience as nursing students (Yang, et al., 2017). The study revealed how embarrassed these male students were, anytime they mentioned their nursing courses to people in their society. They were often met with questions about their masculinity, ridicule and disbelief/shock. People could not come to terms with the fact that men could equally study nursing; nursing was/is for women. This creates frustration and eventually, lowers the self-esteem of these men, and causes high levels of role strain among them (Bell-Scribber, 2008; Yang et al., 2017). In a similar study conducted in Jordan, some male nursing students were advised by others to give up nursing as society rejects male nurses. They were better off pursuing medicine as it was

more masculine than nursing (see Abushaikha et al., 2014). Although studies have declared that male nurses are still manly (Thompson et al., 2011), the popular stereotype that they are effeminate or not masculine enough still persists.

### **3.2.3 The Issue of Inappropriate Touch**

Providing intimate care to female patients is one of the arduous challenges men in nursing face (Inoue et al., 2006). While female nurses' touch has been normalized as a caring behaviour, that of the male nurses has been sexualized (Harding et al., 2008). Men in nursing fear being accused of inappropriately touching a female patient in a sexual manner (Finnegan, 2019). This increases stress and anxiety among both male nursing students and male nurses (Bartfay & Bartfay, 2017; Finnegan, 2019). Several studies reveal how men in nursing find it uncomfortable performing intimate nursing procedures (e.g., Bed baths and urinary catheterization) on female patients (Bartfay & Bartfay, 2017; Finnegan, 2019; and Harding et al., 2008). In 2014, a narrative analysis was designed to examine the experiences of men training to become Registered Nurses in New Zealand (Christensen & Knight, 2014). Male students admitted to being overly cautious when handling female patients. At times, they were not allowed to perform intimate care on female patients; this was an unwritten rule. Female nursing students, however, did not have to face such issues. Cottingham et al., (2016) posit that generally, culture has a heteronormative view that considers a woman's touch to be soothing, while a man's touch is often interpreted as being "hypersexual"; explaining why men's touch are often sexualized. The case of Canadian male nursing students was not any better from their New Zealand counterparts. Bartfay & Bartfay (2017) noted that Canadian male nursing students were often reluctant to perform intimate nursing procedures on women. They were fearful of being accused of inappropriate touch even though they could perform such procedures well. They were always anxious whenever it came to such care procedures. The risk of being accused of improper conduct is particularly high when male nurses are providing intimate care to a patient are alone. It is difficult to defend themselves against allegations; the patient's word is taken over that of the male nurse (Harding et al., 2008). Thus, most male nurses prefer to be supervised when performing such procedures.

Harding, North and Perkins (2008) observed that the issue of inappropriate touch on the part of male nurses is not limited to female patients only. They argued that people found intimate physical care by male nurses problematic, irrespective of the patient's gender. Caring for women leads to the risk of accusations of heterosexual misconduct, and caring for men leads

to the risk of being suspected of homosexuality. Thus, men in nursing are confronted by dilemmas in their daily activities. The dilemma is how to provide quality healthcare to either gender without being accused of sexual misconduct. Some male nursing students in Harding et al.'s (2008) study admitted to facing homophobic stereotypes during clinical sessions. Some of their male patients were wary of the intimate care they provided, likewise some female patients. Hence, they were constantly anxious in the ward.

At times, some patients outrightly refuse the services of male nurses (Harding, 2007). An explorative study was conducted in South Africa (Meyer, 2012). The purpose of the study was to describe the experiences of male community service officers during midwifery clinical training. Many participants reported that patients had refused their care, demanding for female nurses instead. In Harding et al.'s (2008) discourse analysis on intimate care provided by men in nursing, respondents had been met with refusal from both female and male patients. In sum, the “hypersexuality” that society attaches to men’s touch, is problematic in the nursing field. Albeit literature proves there are some patients who applaud the intimate care given by men in nursing (Budu et al., 2019; Mthombeni et al., 2018; Sundus & Younas, 2020), quite a majority of people are sceptical.

#### **3.2.4 Men in Nursing as Want-to-be-Physicians or “Failed Doctors”**

Men in nursing are often stereotyped as “want-to-be-physicians” (Bartfay & Bartfay, 2017) or “failed doctors”. There is a general perception that men in nursing went into nursing because they did not qualify to enter medical school (Bartfay & Bartfay, 2017). Some people also assume that all men in nursing use nursing as a stepping stone to pursuing medicine in future. Although there are male nurses/nursing students, who did not qualify for medical school (the findings of this study prove so), there are others who purposefully chose nursing because they wanted to do it. In a phenomenological study to examine the lived experiences of male nursing students in Canada, Bartfay & Bartfay (2017) found that most male nursing students were often questioned whether they had (had) intentions of becoming medical doctors. Others were also regarded as “second-class citizens”; people assumed that they were not brilliant enough to enter medicine. There are cases where some male nursing students use nursing as a stepping stone to pursue medicine. Some male respondents in Ellis et al.'s (2006) study, were using nursing as a means of entering into medicine in the future.

#### **3.2.5 Few Men in Nursing**

In an era where there is advocacy for gender balance and equality, it is possible to assume that

some occupations would not be heavily gendered anymore. However, courses and professions like nursing, remain totally gendered; there are more women and few men in the field (Best, 2003; Cancian & Oliker, 2000; DeVito, 2016; Norfjell & Nielsen, 2019; Villeneuve, 1994). In global statistics, the proportion of men in nursing remains relatively low. The Nursing and Midwifery Council in the United Kingdom, recorded only 10.8% of male registered nurses, in 2017<sup>17</sup>. In 2019, approximately 274,600 females and 25,700 males were part of the Canadian nursing workforce<sup>18</sup>. In the US, as at 2020, 9.4% of the Registered Nurses and 8.1% of the Licensed Practical or Vocational Nurses (LPNs/LVNs) are men<sup>19</sup>. Similarly, New Zealand recorded only 18% of male Registered Nurses. Women on the other hand, were 92% (Nursing Council of New Zealand, 2020). In Norway, as at 2018, 10% of employed nurses were men; 13% of Norwegian nursing students were men (Skjøstad, Beyrer, Hansen, & Hjemås, 2019; DBH, 2019<sup>20</sup>). The perception that nursing is for women, is responsible for the low percentage and marginalization of men in the field (Bartfay & Bartfay, 2017; Harding, 2009; and Ozdemir et al., 2008). The cultural construction that nursing is for women, discourages a lot of men from pursuing nursing. The role strains, societal ridicule, discrimination and the issue of inappropriate touch, make the field unattractive to the average male (Bartfay et al., 2010; DeVito, 2016; Tzeng et al., 2009).

Generally, the attrition rates of male nursing students exceed those of female students (McLaughlin et al., 2009). Attrition, in this context, is the gradual loss of people in a particular field. Hence, more men in nursing tend to leave the profession or study. Ellis, Meeker and Hyde (2006) assert that attrition is far greater among male than female nursing students. Studies have proven that between 40% and 50% of male students who enter nursing courses, either drop out, fail or transfer to other courses (Villeneuve, 1994; Poliafico, 1998; Wilson, 2005). Bell-Scriber's qualitative case study on nursing students and educators at a public university divulged a diminishing population of male students as they progressed through the nursing programme (Bell-Scriber, 2008). Two studies conducted in the United Kingdom, equally proved similar results; men were less likely than women to graduate from nursing programmes (Mulholland, 2008; Pryjmachuk, 2009). Despite the high attrition rates of male nursing students, some choose to stay. This is because of the considerable investment they had made

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<sup>17</sup> [https://www.nmc.org.uk/globalassets/sitedocuments/annual\\_reports\\_and\\_accounts/edi/edi-report-2016-2017.pdf](https://www.nmc.org.uk/globalassets/sitedocuments/annual_reports_and_accounts/edi/edi-report-2016-2017.pdf)

<sup>18</sup> <https://www.statista.com/statistics/496963/total-nurses-registered-in-canada-workforce-by-gender/>

<sup>19</sup> 2020 National Nursing Workforce Survey, United States of America.

<sup>20</sup> Database for Stasisikk om Høygre Utdanning - DBH (2019). <https://dbh.nsd.uib.no>

in the nursing academic programme (Ellis et al.,2006). Research suggests that the higher attrition rates among male nursing students is due to high levels of role strain and isolation in a female-dominated environment (Bartfay & Bartfay, 2007; Bartfay et al., 2010; Bartfay & Bartfay, 2017; and Bartfay & Davis, 2001).

In sum, the feminized culture/education of nursing, gender stereotypes and discrimination, and role strains impede the recruitment and retention of men in nursing (Bartfay et al., 2010; Bartfay & Bartfay, 2017; U.S. Department of Health and Human Services, 2010).

### **3.2.6 Gendered Division of Labour**

There are certain aspects within nursing that seem to be gendered. There are some tasks or roles that are mostly assigned to men. Such tasks involve physical labour and technical skills. In a qualitative study conducted in public university in Limpopo, South Africa, to explore and describe 4-year diploma male students' experiences in nursing, some respondents revealed that they were mostly called upon to perform tasks involving physical strengths (see Ndou & Moloko-Phiri, 2018). They admitted that they were called out for activities which involved heavy lifting. Studies have revealed that even female nurses believe that male nurses are perfect for tasks involving physical strength and dealing with aggressive and irritable patients. Thus, they are mostly assigned to such tasks (Hodes Research, 2005; Keogh & O'Lynn, 2007). In addition to this, male nurses are perceived as better at taking up leadership roles than female nurses (Chan, Chan & Tse, 2014). Since leadership has for centuries been regarded as a male's inborn ability (Chan et al., 2014), it is not surprising that this perception has permeated into the nursing field (Anthony, 2004; Kleinman, 2004).

There are aspects of nursing that men prefer. Literature posits that most men in nursing are typically attracted to the technical, high-pressure areas of nursing (Tumminia, 1981; Stott, 2007; Streubert, 1994; MacDougall, 1997; Lo & Brown, 1999). Drawing inference from Kleif and Faulkner (2003, p.310), men derive pleasure from technology because it "provides a sense of mastery or prowess to men who often do not otherwise feel very powerful or competent, especially in emotional and social matters". This could explain why men in nursing are drawn to the technical aspects of the course or field. These technical tasks include computerized charting of medical records and diagnosis, dialysis management and calibration of healthcare devices. Stott (2007) conducted a descriptive qualitative study on the factors influencing both the academic and clinical practice performance of undergraduate male nursing students at a regional Australian university. The respondents clearly highlighted their preference for

engaging in the technical aspects of nursing. They admitted to deriving pleasure from the technical aspects of the course.

### **3.3 Coping Strategies of Men in Nursing**

With the constant challenges men in nursing face, it is logical for them to develop strategies to help them cope. Kronsberg, Bouret & Brett (2018) conducted two independent phenomenological studies to explore the lived experiences of American male nurses at both the educational and practice level. The first study focused on the experiences of male nurses at the educational level, with a total of 14 respondents. The second focused on the experiences of male nurses in the workplace, with a total of 15 respondents. Almost all respondents in the study admitted to facing discrimination in the nursing school and on the ward. When asked how they coped with such discriminatory acts, some stated that they reported to management or superiors. Others simply ignored the discrimination (did nothing) while others fought back (defended themselves).

There is very scant literature on how men in nursing cope with all the discrimination and challenges they face; most literature tend to focus more on their lived experiences. The findings of this study will contribute to filling the void in this area.

### **3.4 Motivation for Pursuing Nursing**

Despite the challenges men in nursing are confronted with, there are reasons why they entered the field/profession. Motivation, in this context, is the internal and external drives that influence men's decision to enter nursing (Zamanzadeh et al., 2013). The internal drives include passion/desire for the job as well as personal motivation. External drives include job security, salary and better career opportunities. The following paragraphs will address some of the motivations as expatiated by various literature.

#### **3.4.1 Desire or Passion to Help Others**

The desire to help others, moves some men into entering the nursing field. Although care is usually associated with women (Finnegan, 2019), some men have the desire to care for others (Mthombeni et al., 2018). With an aim of comparing and contrasting male and female nurses' reasons for pursuing nursing, Boughn (2001) found out that some men like women, chose to

pursue the course because they had the altruistic desire to care for people. Similar results were established in Whittock and Leonard's (2003) study. The purpose of the study was to divulge the motivations and experiences of males in the nursing profession in the United Kingdom. With respect to motivation, a major theme that emerged was the desire to care for people. A number of informants in the study stated desire of caring for others as an influential factor. They also expressed the view that males can be as caring as females. A descriptive cross-sectional study was conducted among male students registered for the undergraduate nursing programme at a residential university in the Western Cape of South Africa (see Noordien, Hoffman & Julie, 2020). The aim of the study was to determine factors that motivated male students to choose nursing as a career, and to determine any association with demographic characteristics. The results of the study showed that the desire to help people was the second highest motivation among the respondents, with 89.8% agreement. In these three studies, the desire or passion to care for others, was part of the major factors that influenced men into pursuing nursing.

### **3.4.2 Financial Benefits, Job Security and Salary**

There are some men who enter the nursing field due to the financial gains as well as the secured nature of the job (Baljoon et al., 2018; Boughn, 2001; Fooladi, 2003; Zamanzadeh et al., 2013). Job or financial security is part of the basic needs of every human being. Men currently, are venturing into nursing due to the stable nature of the job. Healthcare will always be a part of human needs. As such healthcare professionals will always be in demand. Nurses are indispensable to the healthcare system. Fooladi (2003) conducted qualitative ethnographic research to explore gendered nursing education and practice among Iranian nursing students and faculty. The male respondents viewed nursing as a source of income and job security. Similar results were observed in Zamanzadeh et al.'s (2013) study. The male informants perceived nursing as a career that would provide them with economic stability and job security. Zysberg and Berry (2005) conducted a quantitative study which involved one hundred and sixty participants, freshman nursing students in three colleges and universities in the north-western and mid-western USA. The aim of the study was to investigate the main motivation of both men and women pursuing nursing. The results showed that although both genders mentioned self-actualization as their main motivation for entering nursing, men placed greater emphasis on salary and job security (survival needs). Yang, Gau et al., (2004), conducted a study to explore Taiwanese male nurses' motivations for becoming nurses. Some participants disclosed that they had entered the field because of the good salary involved. Boughn (2001),



Zamanzadeh et al. (2013) and Zysberg & Berry (2005), are of the view that although men enter into nursing with altruistic desires, the need to be financially or economically stable (survival needs), is the more pressing motivation.

### **3.4.3 Available Alternative**

To some men, nursing was the available alternative or the only option they had left (Yi & Keogh, 2016). Some men wanted to be in the health sector but not as nurses. Other men did not gain admission to their preferred courses. Thus, they had no other option than to pursue nursing (Yang et al., 2004; Yi & Keogh, 2016; Zamanzadeh et al., 2013). In Yang et al.'s (2004) descriptive qualitative study on Taiwanese male nurses' motivation, a participant revealed that nursing was the only option available; he was not accepted by any of the schools he had applied to. Zamanzadeh et al. (2013) also note that in Iran, gaining admission to pursue prestigious courses like dentistry, medicine and pharmacology is very competitive. Hence, men who are not successful in such courses, select study options like nursing. There is also evidence that suggests that some men pursue nursing to avoid other professions such as the military (Zamanzadeh et al., 2013). All Iranian men once they are 18 years, are subjected to compulsory military services. This can be avoided if only they gain admission in a university (ibid.). Thus, some Iranian men, choose nursing (or any other available option) to avoid the military.

### **3.5 Ghanaian Men in Nursing**

Like all other countries across the globe, the number of female nurses outnumbers that of male nurses in Ghana (Boafo et al., 2016; Ministry of Health, 2016). Statistics reveal that the male and female nurses working under the Ministry of Health are 4,984 (13.5%) and 31,943 (86.5%) respectively (Ghana Health Service, 2013; Ministry of Health, 2016). Although more men are gradually entering the profession, they are still not as many as women. At the Komfo Anokye Teaching Hospital, the population of female nurses increased by 26% whereas that of the males increased by only 3%, as at 2017 (Komfo Anokye Teaching Hospital, Human Resource Department (2017) as cited in Budu et al., 2019). Men in nursing in Ghana, still remain in the minority.

Although some Ghanaian men are entering the nursing field because of the desire to help others as they found it noble, there are others who view nursing as a means to branch into other healthcare professions like medicine (Appiah et al., 2021). In a qualitative descriptive study to

explore experiences of Ghanaian male nurses at the Korle Bu Teaching Hospital, some participants disclosed that nursing was a stepping stone for them. One participant was using nursing as a means to branching into Anaesthesia (ibid.).

In addition to this, the secured nature of the job and its financial stability, attracts men to nursing. Seeking employment opportunities in the country can be quite challenging but nursing provides a faster and surer means of employment. This resonates with findings from studies on male nurses' motivation, across the globe (see Baljoon et al., 2018; Boughn, 2001; Fooladi, 2003; Yang et al., 2004; Zamanzadeh et al., 2013 Zysberg & Berry,2005). According to the study conducted by Appiah et al., (2021), some Ghanaian men were in nursing because of the good salary and the availability of the job.

Like their counterparts in other countries across the globe, Ghanaian men in nursing face gender stereotypes and discrimination because of their profession or course. The popular stereotype that nursing is a woman's job, acts as a challenge to men in nursing. People would rather they (male nurses) were doctors (Appiah et al., 2021). This cuts across international boundaries as well. Men in nursing are often viewed as perverts by some patients as well as others in society. Drawing inference from the study conducted by Appiah et al. (2021), respondents admitted that they had faced discrimination and derogatory from others. They had been told on numerous occasions that nursing was not a job for them. Others were seen as perverts; people believed they were in the profession to touch women sexually. Some female patients avoided being treated by them altogether; they were not comfortable with male nurses performing intimate procedures on them.

Despite being subjected to such unfair treatments; studies attest that some patients are very appreciative of male nurses (Appiah et al., 2021; Budu et al., 2019). They prefer them to female nurses (Budu et al., 2019). In 2019, a study was conducted to investigate the perceptions patients had about male nurses in Ghana (ibid.). Some of the participants, females inclusive, preferred being attended to by male nurses as compared to female nurses. They found male nurses as more polite than their female counterparts. They were satisfied with their services. Some of the male nurses in Appiah et al.'s (2021) study also revealed that there were certain patients who preferred to be attended to by male nurses. The patients were more comfortable discussing their problems with them and found their services satisfactory.

There are few literatures and studies on the motivation, experiences, and coping strategies of Ghanaian men in nursing (Appiah et al., 2021). Hence, there is not enough documented

evidence to prove the extent to which Ghanaian men in nursing face stereotypes in their everyday lives. However, the little documented, proves that male nursing students and male nurses do not have an entirely smooth experience in the nursing field. This study, will therefore serve as a welcome contribution to this subject area.

### **3.6 Challenges of Women in Engineering: Gender Stereotypes and Gender-based Discrimination**

Engineering for a long time has been dominated by men (Mburu & Hu, 2005; Zengin-Arslan, 2002). According to Holth (2014), the dualism of rational/irrational and its relationship with masculinity and femininity, is responsible for excluding women from engineering fields, while readily accepting men. Hacker (1989) simplifies this by explaining that the masculine aura of engineering and technology has over a long period of time, discouraged and or excluded women from participating. Women in engineering face gender stereotypes and gender discrimination in their daily lives. This is a global problem.

#### **3.6.1 The Masculine Culture of Engineering**

Engineering has always been viewed as a masculine field or occupation (Faulkner, 2000; Frehill, 2004). The foundation of engineering involves logical reasoning, complex mathematical calculations and rigidity. This aligns with mainstream societal perceptions of masculine characteristics. In sum, per societal standards, engineering embodies masculinity. Since femininity is constructed as non-technical (Zengin-Arslan, 2002), it does not align with the masculine concept engineering. Studies have documented that female engineering students find the engineering environment cold, rigid and not designed to suit women (Baker, Tancred & Whitesides, 2002; Bell, Spencer, Iserman & Logel, 2003).

On both academic and professional levels, engineering functions on masculine cultures based on the interpersonal interactions typical of masculine norms, situated in a setting that promotes a “cold” and “rational” approach to knowledge (Gunter & Stambach, 2005). Microaggression, suppression of feminine traits and assumption that engineering is for men, are some of the facets that characterize the masculine culture of engineering (Cabay, Bernstein, Rivers & Fabert, 2018; Robinson & McIlwee, 1991). Since engineering is associated with “rigidity” and “logical reasoning”, women in engineering have to suppress their femininity in order to fit in (Danielsson, 2012). They have to communicate like their male counterparts, without emotion

or hesitation. Any trait that exudes feminine characteristics, results in their exclusion from the engineering field (ibid.).

In a qualitative study conducted by Cabay et al. (2018), on the examination of the daily influences on female doctoral students during their third or fourth year in physical science and engineering programmes, some of the informants divulged that engineering did not tolerate weakness. An informant revealed how her advisor yelled at her because she was crying about the harsh and insensitive comment he had passed. To him (the advisor), she was being overly sensitive. Other respondents in the study revealed that the engineering department was rife with microaggression. Microaggressions, in this context, include subtle ways of telling women they do not belong to engineering (Cabay et al., 2018). These could include ignoring them, excluding them from meetings or not appreciating their efforts. Some respondents admitted that their scientific contributions were regarded as trivial. Others were left out of social gatherings like hangouts, thus alienating them even from the non-academic environment. They did not have any sense of belonging to the department.

The assumption that engineering is for men, reveals the masculine culture of the field. Both academic and non-academic people, seem to hold this notion in high regard. Phipps (2002) asserts that the professional identity of an engineer is still mainly male. Thus, explaining why there is the assumption that an engineer should be a man. A mixed method study was conducted in two Kenyan universities, to examine the challenges faced by undergraduate female engineering students (see Madara & Cherotich, 2016). Some of the participants reported being discouraged by lecturers from pursuing engineering; engineering is a course for men. There were times where their lecturers passed sexist comments which in turn affected their self-esteem. Suppressing feminine traits, microaggressions and the wrongful assumption that engineering is for men, create a chilly climate and an unfriendly environment for women.

### **3.6.2 Few Women in Engineering**

Across the globe, there are few women in engineering (Hill, Corbett & St. Rose, 2010; Wang & Degol, 2017; Zengin-Arslan, 2002). Despite the advocacy for women empowerment, especially in engineering and technological fields, women still remain in the minority. Women are underrepresented in both the academic and professional fields of engineering (Zengin-Arslan, 2002). In 2019, according to the report from the United States Census Bureau, female

engineers represented about 13% of the total engineering workforce<sup>21</sup>. As at 2018, United Kingdom recorded 12.37% female engineers<sup>22</sup>. Engineering courses and occupations are assumed to rightfully belong to men (De Pillis & De Pillis, 2008), whereas women, to a certain degree, are “a tolerated minority” (Amancio, 2005). From an early age, girls are socialized that engineering, science and technology are for boys (De Pillis & De Pillis, 2008). This tends to have a greater impact on women, reducing their participation and or interest in the field (Jacobs, Davis-Kean, Bleeker, Eccles & Malanchuk 2005; Simpkins, Davis-Kean & Eccles, 2006); many women do not see engineering as something “for them” (Archer, DeWitt, Osborne, Dillon, Willis & Wong, 2013). Beyer (2014) further adds that females tend to have low self-efficacy and believe they have little natural ability in engineering and other traditionally male-dominated domains. This does not attract them to pursuing engineering. Hence, contributing to their underrepresentation in engineering.

### **3.6.3 Discrimination and Sexual Harassment**

According to Lawler (2003) and Roberts & Ayre (2002), women in engineering are more likely to experience discrimination as compared to their male counterparts. Being the minority in a typical male dominated profession, women in engineering are more susceptible to gender-based discrimination and sexual harassment. A qualitative study of 40 women in the Faculty of Sciences, Engineering, and Medicine, was conducted in the US (see Lindquist & McKay, 2018). The study focused on understanding the complex and sensitive experiences of sexual harassment and their impacts on these women faculty. All respondents admitted to experiencing sexual harassment, including gender-based harassment (gendered insults, lewd comments), unwanted sexual advances, and sexual assault by a colleague. One of the participants, an associate professor of engineering, expressed her embarrassment and discomfort about her experience with sexual harassment. Sexual harassment decreases women’s self-confidence, increases levels of anxiety as well as depression (Cortina & Leskinen, 2013; Dansky & Kilpatrick, 1997). Likewise, respondents in this study battled with low self-esteem and emotional stress as a result of sexual harassment.

In June 2002, a survey was conducted in Australia with the aim of providing comparative information about position, pay and employment conditions; experiences and satisfaction in the workplace; and intentions with regard to remaining in, or leaving, the engineering

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<sup>21</sup> <https://www.census.gov/library/stories/2021/01/women-making-gains-in-stem-occupations-but-still-underrepresented.html>

<sup>22</sup> <https://www.engineeringuk.com/research/engineering-uk-report/>

profession (see Roberts & Ayre, 2002). The findings of the survey revealed that 36% of women had experienced discrimination while working as engineers, and 27% had experienced sexual harassment. Eighteen percent of the female engineers reported that colleagues, managers and clients often demonstrated views that engineering was not for women. These discriminatory views, according to WISSET (1995)<sup>23</sup>, are common forms of discrimination that occur in male dominated environments. Discriminatory views include the negative stereotyping of women in relation to their interests, abilities, behaviours and attributes. One female respondent in the study reported how vocal her bosses and male co-workers were about her not belonging in the workplace because of her gender.

The negative stereotype that engineering is not for women, can interfere with their academic performance. Discrimination against women in engineering, originate from mainstream societal gender stereotypes. Discrimination affects the self-esteem and confidence of women in engineering. Women in engineering usually face *stereotype threat*, the concern that others will judge one negatively due to a stereotype that exists about one's group (Quinn & Spencer, 2001; Spencer, Steele & Quinn, 1999) and this in turn, affects their academic performance (Steele, 1997; Bell & Spencer, 2002). A study conducted by Bell et al. (2003), highlighted the effect of stereotype threat on the academic performance of women in engineering. It was observed that, women performed worse than men whenever stereotype threat was high. When stereotype threat was reduced, women performed as well as men. The authors note that, women experience strains of anxiety and pressure in situations where their math and engineering skills are tested. Men in engineering do not face this predicament; they are not stereotyped in the engineering field.

Studies have also shown that, some male engineering students hold discriminatory views against women studying engineering (Madara & Cherotich, 2016; Stoilescu & McDougall, 2011). These views, formed on the basis of gender stereotypes, do not create a warm learning environment for women in engineering. In 2011, a study was carried out in a university in Ontario by Stoilescu & McDougall (2011). The aim was to explore differences between female and male students in undergraduate computer science programs. One of the male respondents emphasized that women did not possess high logical reasoning needed for Computer Science Engineering. Another added that the course required intense thinking, hence explaining women's low interest in the course. These two remarks look down on women as capable of

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<sup>23</sup> Women in Science, Engineering and Technology Advisory Group

logical thinking, which is discriminatory. These comments are formed on the archaic stereotypical notion of masculinity and femininity i.e., masculinity is being logical or rational and femininity is being emotional or sentimental.

A mixed method study was conducted in two Kenyan universities in 2016 (see Madara & Cherotich, 2016). There were 50 participants in total, all female undergraduate engineering students. The study was aimed at examining self-recognized challenges faced by undergraduate female engineering students. As part of the findings, 3 students (6%) reported being treated differently by their male-counterparts who mostly considered them as weaker objects in engineering. This treatment by their male peers counts as gender-based discrimination. They (women) are perceived as weak and unfit for engineering because of their gender. Although women are equally logical and perform well in engineering, the stereotype that engineering is for men, causes them to face discriminatory behaviours.

#### **3.6.4 Gendered Distribution of Women in Engineering**

Despite the low representation of women in engineering, there are certain aspects of the field where they are greatly represented. These fields where the percentage of women is relatively high, have been mostly termed as “*feminine*” *engineering departments or fields* (Zengin-Arslan, 2002). These fields include Chemical Engineering, Food Engineering and Environmental Engineering. These fields are perceived as “soft” and thus, align with the societal concept of femininity. In the United States, as at 2003, Environmental and Biomedical Engineering recorded the highest percentages of women, with 42.1% and 40.4% respectively. Female representation was lower in Mechanical Engineering (13.2% of bachelor’s degrees), Electrical Engineering (14.8%), and Computer Science Engineering (18%), that same year (Bell et al., 2003; Gibbons, 2003).

In the case of Food Engineering, it is not surprising that there are relatively more women in that field or department. The concept of food, since historical times has always been associated with women. Women have always been in charge of cooking, processing and preserving food. This gendered image of food has wormed its way into engineering as well. According to Zengin-Arslan (2002), the feminine image attached to Food Engineering subdues all possible masculine images attached to the engineering profession. Thus, most women find it more suitable to pursue Food Engineering. A study was conducted with the aim of understanding the gendered distribution of engineering in Turkey (ibid.). It was observed that engineering departments in Turkish universities had gendered images. Some departments were conceived

as convenient for women (e.g., Food Engineering), and others as convenient for men (e.g., Mechanical Engineering). One of the respondents, a food engineer, attested to choosing Food Engineering because she did not prefer “male-oriented” engineering courses like Electrical and Mechanical Engineering. To her, Food Engineering is more suitable for women. These gendered images, the author notes, are so powerful, they influence women’s choices in the engineering field.

Civil, Computer, Electrical and Petroleum Engineering, on the other hand, are deemed as “*masculine*” engineering department or fields (Zengin-Arslan, 2002) or “*quintessentially masculine*” (Francis, Archer, Moote, DeWitt, MacLeod, & Yeomans, 2017). People, students inclusive, view these specializations or fields as the “hard” aspects of engineering and thus, conform to the societal construct of masculinity. Hence, there are higher rates of males in those fields as compared to females. Computer Science Engineering, particularly, has had the lowest representation of females throughout the last four decades (Camp, 2012; Sax, Lehman, Jacobs, Kanny, Lim, Monje-Paulson, & Zimmerman, 2017). The gendered image of Computer Science as masculine, discourages majority of women from pursuing the field. Even female students who pursue Computer Science Engineering believe it is a male domain (Stoilescu & McDougall, 2011). The few women who choose to specialize this field prefer the theoretical, social and human aspects of the course while men prefer the hardware and software aspects (Berdousis & Kordaki, 2019).

In a bid to explore differences between female and male students in undergraduate computer science programs, a study was conducted in a mid-size university in Ontario (see Stoilescu & McDougall, 2011). There were 16 participants: six female students and ten male students. A female participant explained that few women pursued Computer Science because it was too challenging for them. Other women participants reported a decrease in their enthusiasm for the course; it was very difficult for them. The male respondents on the other hand, still remained enthusiastic about their course. To some of them, Computer Science involved heavy logical reasoning and logical skills in computation; women lacked this or were not interested in this. Thus, causing them to be underrepresented in Computer Science. The association of logical reasoning to masculinity reflect gender stereotypes. Gendered images associated to specializations within the engineering, reflect gender stereotypical behaviours. Negative gender stereotypes are responsible for the gendered distribution of women in engineering (Berdousis & Kordaki, 2019). The categorization of specializations as masculine or feminine,



reveal how subtle yet powerful gender stereotypes influence the academic and professional choices we make.

### **3.7 Coping Strategies of Women in Engineering**

Women in engineering develop strategies to help them cope with the challenges they face in such masculine environments. Literature suggests that women in engineering act like men, build a reputation and at times, accept discriminatory acts, in order to cope with the challenges, they face (see Powell, Dainty, Bagilhole, & Neale, 2005; Powell, Bagilhole & Dainty, 2009). Powell et al. (2009) adopted a qualitative approach to explore the experiences and reflections of women engineering students in a British university. Data was collected via semi-structured interviews. When asked how they coped in such male-dominated environments, some of the respondents admitted to acting like men. They joked and conversed with their male colleagues without being sentimental or overly cautious. By acting as men, they blended in perfectly to the masculine environment. Sheppard (1989, p. 146) elucidates that by blending in, women get to claim a place in such male-dominated fields, and avoid negative stereotypical attitudes or discriminatory behaviours (Schmitt, Ellemers & Branscombe, 2003). Other informants stated that they studied harder to prove themselves worthy of studying engineering. By building a good reputation for themselves, it was easier to ward off discriminatory and stereotypical attitudes. Also, a good reputation meant that they would not be disheartened when faced with gender-based challenges. Some female engineering students simply accepted the discrimination they faced. The authors observed that some of these women justified reasons for the discrimination they faced. Some felt their male counterparts were more brilliant than they were so they did not always deserve to be treated equally. Although disturbing, from the results of this study, it is obvious that some women in engineering have come to accept discriminatory acts against them because they do not perceive themselves as equally capable.

There is insufficient literature on the coping strategies women in engineering adopt to sail through the challenges they face daily. Similar to the case of men in nursing, most research and literature focus more on the lived experiences of women in engineering as compared to how they cope with these challenges. The results of this study will disclose more on this lacking area.

### **3.8 Motivation for Pursuing Engineering**

Despite the challenges women in engineering face, there are reasons why they chose the field or profession. These reasons could be external or internal. Natural curiosity and passion are examples of internal motivation. External motivation includes financial benefits and job opportunities. The following paragraphs will address the motivation of women in engineering, with reference to literature.

#### **3.8.1 Passion for or Interest in Engineering**

Some women pursue engineering because of they are driven by their passion for the course. Though the field can be challenging at times, their passion urges them on. A multiple case study research was conducted in a technical school in the U.S, with the purpose of understanding how students chose to pursue engineering (see Matusovich, Streveler & Miller, 2010). The participants included 11 students (5 men and 6 women). One of the female engineering students described her love for engineering as her motivation. Prior to entering college, she enjoyed participating in all activities that included engineering. She went on to describe lab sessions as “play,” a clear expression of enjoyment of her course.

#### **3.8.2 Financial Benefits and Job Opportunities**

There are some women who enter the engineering field due to its possible job prospects. In Matusovich et al.’s (2010) study, a female engineering student said she was pursuing the course because of the potential future career options. To her, engineering was a means of attaining possible job prospects in the future. Other women are into engineering because of the financial benefits involved. During Fall of 2012, a survey was given to students at five non-metropolitan community colleges in the U.S. (see Anderson-Rowland, Rodriguez & Grierson, 2013). The purpose of the study was to find out what attracted students to engineering. The informants of the survey were both men and women. Among the women, money was the topmost reason for them choosing to study engineering. Although some of men in the survey admitted that their motivation was money, more than half of the women ranked money as their topmost motivation.

### **3.9 Ghanaian Women in Engineering**

Similar to all countries across the globe, Ghanaian women in engineering are underrepresented

(Baryeh et al., 2000). As at 2018, the percentage of Ghanaian women enrolled in engineering, mathematical and statistical programmes was three percent<sup>24</sup>. In the 2013/2014 academic year of University of Mines and Technology (UMaT), 23% of the students who had been enrolled in engineering and technological programmes at the undergraduate level were women, with the remaining 77% being men (Planning & Quality Assurance Unit / UMaT, 2014, as cited in Kilu & Sanda, 2016). Scholars (Ayarkwa, Agyekum & Acheampong, 2012; Baryeh et al., 2000; Kilu & Sanda, 2016) attribute the underrepresentation of Ghanaian women in engineering to the negative stereotype that women are not fit for technological or engineering activities.

Some Ghanaian women pursue engineering because of their passion and natural curiosity for the course. A qualitative study was conducted in the Kwame Nkrumah University of Science and Technology (KNUST) on Ghanaian women in engineering (see Baryeh et al., 2000). The respondents included engineering students (50 females and 20 males), and 15 lecturers. Natural curiosity and love for the course, was a part of the top motivation factors among the female engineering students.

In addition to this, the various career opportunities associated with engineering, attracts women to engineering. Engineering is a prestigious field and offers good career opportunities worldwide. Hence women also want to benefit from this. Drawing inference from the study conducted by Baryeh et al. (2000), female engineering students affirmed that the possible career opportunities associated with engineering, was a motivating factor to pursuing the course.

Like their counterparts across the globe, Ghanaian women in engineering face gender stereotypes and discrimination because of their field. The popular stereotype that engineering is a man's job, acts as a challenge to women in engineering. A qualitative study was conducted to examine the experiences of successful women in STEM in Ghana utilizing semi-structured interviews (see Boateng, 2017). Fifteen women in STEM in senior faculty ranks were interviewed. The participants admitted to experiencing gender discrimination from their university days to their current professional years. In Baryeh et al.'s (2000) study, respondents admitted to facing discouraging and discriminatory attitudes from men, friends and colleagues. Other times, some male lecturers demonstrated preconceived ideas that they (the female engineering students) could not succeed in engineering. A field survey was conducted by

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<sup>24</sup> <https://tradingeconomics.com/ghana/percentage-of-female-students-in-tertiary-education-enrolled-in-engineering-manufacturing-and-construction-programmes-female-percent-wb-data.html>

Ayarkwa et al. (2012) to assess the challenges to female graduates' retention in the Ghanaian construction industry. The participants involved were engineering professionals in the construction industry: 51 males and 51 females. 3.5% of the females cited gender discrimination while 3.8% of them blamed intimidation by their male peers, as reasons why female were few in the industry. Although these statistics are low, they show that there still remains some unfairness towards women in the engineering field.

Despite being subjected to unjust treatments, studies show that some people are supportive of women in engineering (Baryeh et al., 2000). There are engineering lecturers who approve of women pursuing engineering. Some male students affirm that engineering is not a field for men only; women could pursue it as well (ibid.). The Vice Chancellor of UMaT, during the time of the study conducted by Kilu & Sanda (2016), was in favour of women in engineering. He divulged that woman in the university had been performing very well, sweeping awards for being overall best students.

Similar to Ghanaian men in nursing, there is insufficient literature on the motivation, experiences, coping strategies and statistics of Ghanaian women in engineering (Boakye, 2018; Boateng, 2017). Thus, there is narrow knowledge on the stereotypical and discriminatory attitudes they have to put up with daily. Nevertheless, the few that have been documented reveal how challenging it is for female students and professionals in the engineering field. This study will contribute to filling the gap in this subject area.

## **CHAPTER FOUR**

### **METHODOLOGY**

This chapter focuses on the type of methodology used as well as the rationale behind this choice. Challenges, experiences and observations made during the data collection will be highlighted. This chapter will also include a reflection on my positionality during the research process.

#### **4.1 Qualitative Method**

This study adopted the qualitative approach with a case study design to understand, the experiences and challenges of male nursing students and female engineering students. The application of qualitative methods helps researchers gain access to people's social and cultural construction of their reality (Guba & Lincoln, 1994; Silverman, 2013). Berg et al. (2012:8) further highlight the importance of the qualitative approach as it “accurately attempts to answer questions by investigating multiple social settings and the individuals who reside in these settings, especially how humans organize themselves and their settings, and how inhabitants of these settings perceive their surroundings through symbols, rituals, social structures, and social roles”.

With the research objectives and research question, the qualitative approach indeed was best for this project. I was actively engaged in the research; I had to reach out to respondents, explain the importance of my research and conduct interviews. I was able to establish ties of friendship with some respondents, who to this day are still in touch with me. In addition, the open-ended nature of the questions in the interview helped me obtain a vivid description of informants' experiences by probing and seeking for clarification where necessary. The informants in turn, were at liberty to seek clarification.

#### **4.2 Case Study Design**

Case study is a research strategy which focuses on understanding the dynamics of a phenomenon within single settings (Eisenhart, 1989) and is particularly useful when a researcher is attempting to uncover a relationship between a phenomenon and the context in which it is occurring (Gray, 2018). Case studies allow the researcher to gain an extensive

understanding about a subject (Stake, 2000). The case study design was best suited for this study as I was attempting to reveal the in-depth experiences of gender-untypical students and why they faced challenges in their respective programmes. Gray (2018) adds that case study designs are ideal in answering research questions that are concerned with the ‘how’ or ‘why’ of a contemporary phenomenon of which the researcher has no control. The main research question of this thesis seeks to answer how gender stereotypes affect the study situation of male nursing and female engineering students at the University of Ghana. In addition to this, gender stereotype is a contemporary phenomenon of which I have no control. Thus, the case study design was most appropriate for this study.

### **4.3 Data Collection**

The main data collection method was semi-structured interviews. Apart from observation, interviews are one of the most common ways of gathering data qualitatively (Gray, 2018). An interview is a verbal exchange in which a person, the interviewer, attempts to acquire information from and gain understanding of another person, the interviewee (ibid). The aim of interviews is to understand the lived experiences of others and the meaning they make of these experiences (Seidman, 2013). I prepared an interview guide, which featured biodata of respondents as well as open-ended questions so respondents could freely express themselves. The semi-structured nature of the interviews helped me probe and develop a clear picture of the respondents’ experiences.

During the interviews, I recorded and noted striking responses. I also asked questions based on responses from previous informants in order to find similarities and differences in experiences. At times, some respondents were carried away, they deviated from questions asked. I managed to bring them back on track.

The interviews lasted for about 45 minutes. The duration of the interviews mostly depended on the informants. With the livelier informants, the interviews lasted longer. A few respondents were taciturn. I had to remind a few respondents, particularly the students, to feel at ease. I explained to them I was equally a student; there was no need to be overly formal with me. The time and venue of the interviews were determined by the respondents’ schedules, I did not want to be imposing.

Due to the ongoing pandemic as well as busy schedules of most of my respondents, most of the interviews were conducted virtually, via Zoom Meetings. In situations where some respondents had unstable internet connection, telephone call was the alternative. Only six respondents were available for a physical/face-to-face meeting.

I was not able to observe the daily activities of male nursing and female engineering students as most classes were held virtually due to the COVID-19 pandemic. Hence, my main challenge in this study was the ongoing pandemic. I was deprived of physical contact with most of my respondents, and denied the opportunity to fully observe the social interactions of men in nursing and women in engineering as well.

#### 4.4 Sampling

I initially selected informants through purposive sampling; I already had a few contacts in both nursing and engineering, prior to the research. In Purposive Sampling, the researcher selects a particular group of people based on their knowledge about the study and or population (Maxwell, 1997). Through these contacts, I was linked to potential informants. After gaining the trust and establishing friendly ties with these informants, they in turn, identified others. This sampling process is called snowballing. Snowballing is a sampling approach where informants connect the researcher to other persons of interest (Gray, 2018). This technique proved very helpful in my research. Most of my informants were able to connect me to their peers easily. This reduced the stress of having to search for participants. Overall, the sample consisted of 31 informants, 20 of whom were students; 10 from nursing (eight males and two females) and 10 from engineering (eight females and two males), eight workers in engineering and nursing occupations and three lecturers. The tables below summarize briefly the details of respondents.

**Table 1.0** Nursing Students by Gender, Age, Course and Level

<b>GENDER</b>	<b>AGE</b>	<b>COURSE</b>	<b>LEVEL</b>
Male	19	Degree in Nursing	100
Male	20	General Nursing	100
Male	20	Mental Nursing	100

Female	20	General Nursing	100
Female	21	Midwifery	300
Male	21	Community Health Nursing	400
Male	22	Adult Health Nursing	400
Male	22	General Nursing	400
Male	23	General Nursing	400
Male	24	Community Health Nursing	400

*Source:* Data from Fieldwork (2021).

From the table above the age range of the nursing students is 19 to 24. Eight of the students were males and two were females. Most of the respondents are in their final year i.e., Level 400. All the nursing students, who served as informants, are current students of the University.

**Table 1.1** Engineering Students by Gender, Age, Course and Level

<b>GENDER</b>	<b>AGE</b>	<b>COURSE</b>	<b>LEVEL</b>
Female	19	Computer Engineering	100
Female	19	Food Process Engineering	300
Female	20	Biomedical Engineering	300
Male	20	Material Science Engineering	300
Female	21	Biomedical Engineering	300
Female	21	Computer Engineering	300
Female	21	Material Science Engineering	300
Female	21	Biomedical Engineering	300
Female	21	Biomedical Engineering	300
Male	20	Computer Engineering	400

*Source:* Data from Fieldwork (2021).

The table above shows the age, course and level of engineering students by gender. There were eight females and two males, with age ranging from 19 to 21. Most of the respondents were in their third year i.e., Level 300. All engineering students interviewed are current students of the University.



**Table 1.2** Lecturers Interviewed by Gender, Age and Courses they lecture.

<b>GENDER</b>	<b>AGE</b>	<b>COURSES</b>
Male	Mid 30's	Engineering – Basic Electronics, Numerical Methods, other courses related to Electrical Engineering
Female	Mid 40's	Nursing – Community Health, Adolescent Reproductive Health & other nursing courses as well
Male	Mid 50's	Nursing – Mental Health

*Source:* Data from Fieldwork (2021).

The challenge, studying Table 1.2, was getting a female engineering lecturer to participate. I noticed from the list of staff on the Engineering Department's website that there were relatively fewer female engineering lecturers as compared to their male counterparts. In addition, their hectic schedules and strike actions by lecturers made it difficult assessing them. A female engineering lecturer's experiences would have added more insights to this study, being a woman lecturing a male-dominated course.

**Table 1.3** Professionals by Gender, Age and Occupation.

<b>GENDER</b>	<b>AGE</b>	<b>OCCUPATION</b>
Female	24	Civil Engineer
Male	24	Registered General Nurse
Female	24	Registered General Nurse
Male	26	Registered General Nurse
Male	26	Registered General Nurse
Male	29	Civil Engineer
Female	37	Mechanical & Design Engineer
Female	Mid 40's	Infection, Prevention & Control Nurse

*Source:* Data from Fieldwork (2021).

The professionals were relatively young, with their ages ranging from 24 to the mid-forties. There were four engineers: two males and two females, and four nurses: two males and two females. All professionals were currently working in their respective fields.

#### 4.5 Positionality

The positionality of the researcher is very important in every step of the research from choice of research topic to data collection methods. It is also influential in the interpretation of data. According to Mullings (1999), positionality is the perspectives of the researcher, shaped by his or her unique combination of race, class, gender, nationality, and sexuality among other identifiers, as well as his or her location in time and space. This unique combination influences how the researcher views the world and interprets it. My identity as a Ghanaian, young woman, past student of the University of Ghana, unmarried, student and researcher, played influential roles in this study.

Being a Ghanaian conducting a study in Ghana, meant that I knew the cultural/social context. Ghanaians take courtesy and hierarchy very seriously. I was able to relate with my informants as we shared the same national identity. I demonstrated courtesy to both the professionals and the students during the interview sessions. At times, when respondents used expressions in local languages, such as, *Twi* or *Fante*, I would reply fluently in either language. This, I realized made the respondents more comfortable and expressive. In such situations, I was an insider.

A researcher is considered an insider if he/she studies a group he/she belongs to. The researcher is considered an outsider if he/she does not belong to the group he/she is studying (Mullings, 1999). These positions provide useful considerations for reflections in research.

Apart from my Ghanaian identity, being a youth, unmarried and a past student of the University of Ghana, proved beneficial when I interviewed the students. As the students formed the majority of my informants, it was necessary for me to be able to relate to them and make them feel at ease. At times, they made references to their halls of residence, the distance from their faculties/departments to their hostels as well as certain compulsory courses for all students in the school. As a past student, it was easier for me to understand what they meant. One of my respondents, a female, talked about how unsafe it was, going to her hall, Volta Hall, from the Engineering Faculty at night. She said that she had closed very late that day due to her hectic schedule. I understood what she meant; I knew the exact locations of these two buildings and how risky it is to be around such areas alone at night, especially for female students. Here, my identity as a woman proved useful. As a woman, I knew males are at lesser risks of being attacked as such areas as compared to females. Women were more vulnerable to men in such unsafe areas. I added my voice to her concern, indicating that I understood her clearly and even offered safer shortcuts and precaution measures.

As an unmarried woman and a student, my student respondents felt more at liberty to express themselves without being overly cautious. In the typical Ghanaian setting, married people are seen as mature and on a higher social status. Thus, the unmarried, particularly the very young ones, tend to approach them as they would to the elderly in society. I observed that whenever, the students realized that I was unmarried, their tone changed. They spoke to me as their peer and cracked a few jokes about marriage. I was able to discuss the challenges of being a student and share my experiences with them as well. One respondent, a female engineering student, was put totally at ease when I told her that I was a student just as she was. The atmosphere changed from very formal to informal and warm as I interviewed her.

The youth usually have certain terms or expressions best known to them. I used this to my advantage as well. During one of my interactions with a male nursing student, I exclaimed, '*You be shark o!*' [You are intelligent] when he described his academic performance and achievements to me. He laughed and bashfully tried to deny it by replying, '*No be that o! I just dey try.*' [It is not so; I am just trying]. These expressions are very popular among the youth particularly the males. He found it easier to talk to me and readily linked me to his peers when I asked.

I was an outsider when I interviewed people studying and working in fields in which, I had no experiences. Regarding the nursing students, nurses and nursing lecturers, I had to seek for clarification whenever they mentioned certain terms that I had no knowledge of. This made it obvious that I did not belong to this group. At times, I would have to "google" some of the equipment and apparatus they described in order to understand what they meant. There was an instance where a male professional nurse, in describing his experiences, used words like *rotation and care study*. I probed for clarification as these were terms I could not relate to. Although he was kind enough to explain them to me, I still did not feel like I belonged to this field. The *rotation*, he explained, is a period where the *nurses to-be*, actively interact with patients and take care of them, but under the supervision of a senior nursing staff. *Care study*, he elucidated, was just as case studies in the Social Sciences/Humanities research. He said that in nursing, they described it as *care study*: one may take care of a particular patient or more, as part of conducting his/her research.

Similar to the nursing students and nurses, there were terms the engineering students and engineers used that I did not understand. At times, I looked confused when they used certain terms. All were kind enough to explain what they meant. An engineering student made mention

of Cloud Computing, as part of her future prospects. She noticed my confused expression behind the screen (we held a virtual interview) and simply explained it as a virtual service for data storage. By comparing it to iCloud, a virtual data storage space for iPhone users, I got a clearer picture of what she wanted to put across. I remember voicing out to one of my respondents; a biomedical engineering student, that I thought the course she took was within the field of medical sciences. She giggled and corrected me, *'If you come to Biomedical Engineering with that mentality, you will be seriously disappointed.'* The course actually involves a lot of physics and mathematics.

I was completely an outsider when it came to delving into the fields of my respondents, being a Human Geography student with no experiences in either field of interest. However, it was useful as it introduced me to a completely new world. I have understood my respondents from their viewpoint and added to my knowledge on what both fields entail. As an outsider in both fields, respondents took time to fully explain themselves and this gave me deeper insight.

#### **4.6 Limitations**

The fieldwork was not entirely a smooth one. I faced challenges at certain points in time. The current COVID-19 pandemic was the biggest limitation of all. I could not have close contact with most of my respondents. I had to take both my health and that of my informants into consideration. Thus, the majority of my respondents resorted to virtual meetings and/or telephone calls. Again, the pandemic made it difficult for me to observe the social interactions and relationships among nursing and engineering students as almost all classes were held virtually. This limited the movement of students on the University campus.

Unstable internet connection made it uncomfortable to hold virtual meetings in some instances. Whenever there were problems with internet connection from either my end or that of my respondent, the interview was disrupted. Eventually, I would have to call the respondent and start the interview all over again. It was particularly exasperating when the internet connection became unstable during periods where the interview was at its peak. Although telephone call made up for it, I had to start afresh and record.

During the data collection period, the lecturers were on strike. This made it difficult to get access to lecturers, particularly the female engineering lecturers. Most of them were not on campus. Others, I was informed, were on leave. Some too, had very hectic schedules and could

not be of help. The few numbers of female engineering lecturers were also a hindrance. If they had been many, it would have been possible to get in touch with at least one of them, despite the strike and pandemic.

## **4.7 Data Quality**

A study quality's is dependent on the methodological choices made in that study (Busch, 2013). Although some academic scholars criticize that it is difficult to obtain high data quality in qualitative studies because of the interpretative nature of the data (Gray, 2018), Mullings (1999) argues otherwise. She asserts that it is possible to achieve high quality data through reflexivity. During reflexivity, the researcher is conscious of how he/she influences the research. Throughout the data collection, I was reflexive of my positionality and how it affected my study. In addition to reflexivity, reliability, validity and transferability help to ensure high quality data in research. These three factors have been expounded in the following paragraphs.

### **4.7.1 Validity**

A study is valid when both the researcher and the informants have the same understanding or interpretation of the phenomenon being discussed (Busch, 2013). Concerning semi-structured interviews, the researcher achieves validity when the content of the questions directly focuses on the research objectives (Gray, 2018). The content of the questions I asked during the interview centralized on the experiences: challenges, benefits and coping mechanisms, of my respondents. Irrespective of the time-consuming nature of interviews or unstable internet, I tackled these experiences as they formed the core of my research. I engaged most of my respondents in friendly discussions prior to the interview. We had conversations about school life, the future and or personal interests. This helped build a rapport between them and myself. By building this rapport and trust, the informants were given the scope to express themselves and according to Arksey and Knight (1999), this strengthens the validity of the research findings.

Whenever respondents made statements that were not clear enough, I prompted them to explain and expand what they meant. I made sure I understood their experiences, both negative and positive and even sympathized with them, if need be. When some male nursing student respondents talked about how they were teased by other students, I sympathized with them and asked them to expand what they meant. They replied saying it was because they were males

offering a course that is generally perceived as being appropriate for women. The long nature of the interviews meant that I could probe in depth. I was given a vivid description of certain challenges my respondents faced as well as how they coped with such difficulties. Whereas some of them ignored teasing/offensive remarks, others also retaliated. By prompting informants to explain/expand their responses and ensuring that the interview process is sufficiently long for in depth probing, it strengthened the validity of this study (Arksey & Knight, 1999).

There are two types of validity in qualitative research: *internal validity* and *external validity* (Kapborg & Berterö, 2002; Gray, 2018). A researcher can achieve internal validity when he/she demonstrates the reality of the participants by using quotations and/ or statements from interviews in the study (Kapborg & Berterö, 2002). These quotations or statements could be long or short. At times, with short quotes, there is a tendency for the researcher to take them out of context (Busch, 2013). To avoid such issues, the researcher can include longer quotations or statements. This way, the readers can appreciate the interpretations of the researcher (Kapborg & Berterö, 2002). This study includes short and long quotes as well as dialogues. Thus, ensuring that no statements made by respondents were taken out of context. This strengthens the internal validity of this research.

External validity is concerned with the research finding's transferability. It addresses the extent to which the findings produced in a study can be applicable in other similar studies (Busch, 2013). Although achieving external validity is often described as problematic in qualitative studies in the sense that it is difficult to draw generalizations from studies with relatively small samples that are specific to particular settings (LeCompte & Goetz, 1982; Kapborg & Berterö, 2002), it is possible that some of the findings of this study would be relevant for comparison in similar studies.

#### **4.7.2 Reliability**

Reliability is concerned with the credibility or trustworthiness of data produced in a study (Busch, 2013). Usually, this is difficult when using interviews as the data collection method. There is a tendency of bias, on the part of the researcher/interviewer. This is termed as *interviewer bias* (Gray, 2018). The interviewer may unconsciously give more or less time to some respondents. The interviewer may also change his/her tone depending on who the respondent is. There is also the tendency of both the researcher/interviewer and the informants to create versions of themselves that could be re-interpreted in different ways (Järvinen, 2005;

Mullings, 1999). In addition to interviewer bias, there is also the likelihood that informants could adjust their responses to what the researcher aims at achieving.

During each interview, I was polite even when speaking to younger respondents. I did not want to display superiority. I was formal with the lecturers. In Ghana, lecturers and all elderly for that matter are to be approached with formality and respect. I did not cut off any respondents be it student or professional. Although I probed, asked for clarifications where necessary, the duration of the interview was determined by the respondent. The livelier they were, the lengthier the interview. This way, I did not have to be biased in allocating more time or cutting them off. In addition to this, I asked respondents follow up questions to make sure I had not misinterpreted their responses. Asking follow up questions was also to ensure that the informants were not adjusting their responses to suit my study's aim. All respondents were sent transcriptions of our interview sessions. None of them made any changes to the transcript, proving that all that they had said was credible enough for academic purposes. These actions prove the reliability of this study.

#### **4.8 Ethical Considerations**

Prior to departure for my fieldwork, I sought permission from RETTE. I filled a form on how I would collect and analyse data. I received an email with the permission to carry out my research since I was not going to breach any ethical code of conduct. Before each interview, I summarized the aims and importance of my study to my respondents. I sought their permission before I recorded our conversation and made notes. For the virtual meetings, I selected the record option on my laptop. I used a smartphone to record in-person/physical interviews and those conducted via telephone call. I also informed the respondents that they were at liberty to draw my attention to questions they felt were sensitive or did not want to answer. To protect their identities, all respondents were kept anonymous during transcription, findings and discussion. I informed them that I would not include their names in the study. Each respondent received a transcription of our discussions, after our interview sessions. Each participant was at liberty to examine the transcripts for accuracy. For the lecturers, I sent the transcriptions via their emails. For the students and professionals, I sent the transcriptions via WhatsApp. All informants had no problem reading through the transcripts; they were literate. Most respondents expressed their gratitude after reading through the transcripts. None of the

participants in this study made any changes to their transcripts. No respondent was coerced into participating.

#### **4.9 Data Analysis**

In order to make meaning of data collected during a fieldwork, it has to be analysed. Data analysis is the refinement or making sense of the situations and events, we encounter (Stake, 1995). It is the process of giving meaning to observations within the framework of your worldview (Taylor, 2016).

To reduce the burden of stress associated with transcription, I transcribed after every interview session. On days where I had more than two interviews, I transcribed the rest the following day. Prior to the research, I had three major themes in mind: Motivation (reason for choosing that particular educational programme or career path), Experiences (challenges) and Coping Strategies. All responses were transcribed verbatim; to provide a clearer picture of respondents' sentiments and views. The responses were grouped in themes. Themes capture important details about the data in relation to the research question. They represent a level of patterned response within the data (Gray, 2018).

I employed the stages of Qualitative Analysis as offered by Bazeley and Jackson (2013). These stages include Data Transcription, Reading and Reflection, Explore and Play, Code and Connect, and Review and Refine.

*Data Transcription:* I transcribed all recorded interviews myself. I did this using Microsoft Word. Although laborious, I felt it best to do it by myself; I was the one who conducted the interview and had the expressions of my respondents in mind. As aforementioned, I avoided piling up all recorded interviews before transcribing. By transcribing myself, I had the advantage of being familiar with the data, at an early stage (ibid). I later wrote out notes that I had made hastily during interview sessions.

*Reading and Reflection:* After transcribing, I printed out each interview session and read them repeatedly. I did this to be familiar with each text. According to Gray (2018), familiarizing with transcribed texts make it easier for the researcher to develop codes and theme. I made some comparisons to the notes I had taken during the interview, reflecting on certain issues raised during the interview. In each transcript, I used alphabets to name my informants to protect their identity.



With the *Explore and Play* stage in mind, I was able to develop sub-themes and make connections between them. I tried to connect some of these themes to existing gender ideologies and theories. I wanted to know whether some of these theories could explain some of the themes that emerged and vice-versa.

*Code and Connect:* I coded main and sub-themes on paper and electronically. I generated as many codes as I could, with the mindset of modifying and or eliminating some of them eventually. I then tried to find connections between these codes; I wanted to be certain my work would have coherence.

*Review and Refine:* During coding, new codes may emerge that may cause the researcher to modify, merge or even eliminate certain existing codes (Bazeley & Jackson, 2013). I eliminated a few codes I felt were irrelevant for analysis. Some of these included places of residence and hometowns.

At the end of the analysis, three major themes were identified: Motivation, Challenges and Coping Strategies. A total of nine sub-themes emerged from the aforementioned major themes. The tabulation of major themes and their respective sub-themes can be found in Chapter Five of this research work.

## CHAPTER FIVE

### AN EMPIRICAL ANALYSIS OF FINDINGS

This chapter presents the empirical findings made during the analysis of data. It seeks to divulge how gender stereotypes influence the study situation for students making gender untypical educational choices at the University of Ghana. It explores how gender ideologies, gender roles, and gender stereotypes, are responsible for the experiences of men in nursing and women in engineering.

Twenty students were interviewed, 10 from nursing school and the other 10, from the faculty of engineering. Out of the 10 nursing students, 8 were males and 2, females. The engineering students, on the other hand, comprised of 8 females and 2 males. The age range of the student respondents was 19 to 24. Three lecturers partook in the data collection: 1 male engineering lecturer, 1 female nursing lecturer, and 1 male nursing lecturer. There were 4 nurses (2 males and 2 females) and 4 engineers (2 males and 2 females).

As explained in the Methodology Chapter, three major themes were identified: *Motivation*, *Challenges*, and *Coping Strategies*. Sub-themes were developed under three of the major themes. The table below shows major themes and their sub-themes.

**Table 1.4** Major Themes and Sub-Themes Developed

MAJOR THEME	SUB-THEMES
Motivation	<ol style="list-style-type: none"><li>i. Passion</li><li>ii. Available Alternative</li><li>iii. Financial Gain &amp; Future Job Prospects</li></ol>
Challenges	<ol style="list-style-type: none"><li>i. Teasing</li><li>ii. Discrimination</li><li>iii. Gendered Division of Labour and Discomfort of Female Patients</li></ol>
Coping Strategies	<ol style="list-style-type: none"><li>i. Ignore</li><li>ii. Defend or Retaliate</li><li>iii. Report to Superiors and Try to Include Female Colleagues</li></ol>

### **5.1 An Unchanging Observation: Few Men in Nursing and Few Women in Engineering**

Throughout all discussions with the respondents, from students to professionals, it was noted that the number of *gender typical* students and that of the *untypical ones*. In the Nursing School, there were few male nursing students as compared to the females. One male nursing student had stated that there were about 13 men in his class as compared to 130 women. The underrepresentation of men in nursing is a phenomenon that has existed for a very long time. A female professional nurse emphasized that during her school days in the early 2000's, there were only five men in her class. Both male professional nurses admitted that there was no gender balance in nursing. Although men are gradually entering the nursing field, they remain heavily outnumbered by women. During the study, no male student however was recorded pursuing midwifery. A midwifery student constated that there were no men in her class. She then proceeded to attribute this to the notion that midwifery was for women. Men are not seen as capable for delivering babies; it does not align with societal gender ideologies and their gender roles. Because men are perceived as agentic beings, childbirth and providing intimate healthcare services do not "suit" them.

In the Engineering Faculty, women were underrepresented. A Material Science Engineering student affirmed that there were eight females in his class out of a total of 35 students. The gender gap in engineering, similar to nursing, has existed for over a long period of time. A female civil engineer recounted that during her school years, men outnumbered women. She further approximated that the women in her class were 30 as compared to about 140 men. The stereotype that engineering is for men and nursing is for women, is a major contributing factor to the low representation of the gender untypical students in both fields. Per typical Ghanaian societal gender ideologies, women and men are supposed to take up educational and ultimately, career paths that reflect their communal and agentic nature. Although, there are quite a number of gender-untypical students have deviated from this ideology, a vast majority of men and women would still prefer to stick to agentic and communal paths. This gendered way of thinking still influences a majority of people, irrespective of academic background, in the Ghanaian society.

However, Food Process Engineering had an appreciable number of female students. A Food Process Engineering student highlighted that there were about 12 women in her class out of about 22 students. This observation was also made by an engineering lecturer who affirmed that there were indeed more women than men in Food Process Engineering as compared to the

other engineering programmes in the school. The presence of many women in Food Process Engineering could be attributed to the concept of food, attached to the course. Women, since historical times, have always been tasked with the preparation and storage of food. Thus, *food* aligns with the embodiment of womanhood. Even though engineering is a male dominated field, the idea of Food Process Engineering, has a female connotation to it because of its concept of food. This attracts more women into this particular field as compared to the other engineering programmes.

## 5.2 Motivation

This major theme is concerned with the reason why men in nursing and women in engineering chose to pursue such gender untypical paths. Using Zamanzadeh et al. (2013) as point of reference, there are two types of motivation: Intrinsic Factors and Extrinsic Factors. Some respondents were moved by intrinsic factors such as love/passion for the field or profession. Others were moved by extrinsic factors like future job prospects and financial gains.

### i. *Passion*

Some of the respondents expressed passion as their motivating factor. This was more frequent among the female engineering students as compared to the male nursing students. Some of them fell in love with the idea or concept of their engineering courses. One female Biomedical Engineering student had chosen her programme because she found it fascinating and new as it had elements of both medicine and engineering. Unlike other engineering programmes which had elements of physics, mathematics and machinery, Biomedical Engineering, according to her, had a different concept, i.e., a combination of medicine and engineering. She described her motivation:

*I was very much in love with the whole concept of Biomedical Engineering and how it is based on medicine and engineering.* (Female Biomedical Engineering Student, 21 years).

Having passion for the course meant that they enjoyed studying it even when it became difficult and stressful. All engineering respondents, at various points during the interview, admitted that the programme was indeed demanding and tough. There were times they cried and were exasperated. However, their desire for their respective programmes motivated them into continuing. One respondent explained:

*Because I am having fun doing my course even though I cry sometimes but yeah, I'm still having fun doing it. (Female Engineering Student, 21 years).*

Both of the male engineering student respondents equally admitted to having an interest in their engineering courses. According to them, their interest fuelled their decision in choosing their current courses. One admitted that he had always been interested in engineering and had always been intrigued about engineering.

Whereas both of the female nursing student respondents chose the course because they had the passion to help people or cater for others, this was not so frequent among the male nursing students. Out of the eight male nursing student respondents, two purposefully chose to pursue nursing because they had the desire to help and invigorate people. The popular mainstream gender ideology that nursing is for women, does not incite the desire for a majority of men to pursue the field. Hence, fewer men pursue nursing because they genuinely like it. One of the male nursing students explained that he had studied Elective Science in Senior High School (SHS) and thereafter, developed a passion for healthcare. (In Ghana, the Elective Science programme at the secondary level of education, includes Elective Mathematics, Biology, Chemistry and Physics. These are electives Elective Science students study in addition to four core/compulsory subjects: English Language, Core Mathematics, Integrated Science and Social Studies.) He believed nursing provided the opportunity for him to provide healthcare services to people. He elucidated:

*So, just right after SHS, I was having that passion to go into health and help people. I just decided to apply for nursing which will give me the opportunity to follow my passion. Yeah. (Male Nursing Student, 22 years).*

The other male nursing student stated that he chose to pursue nursing not only because he was passion-driven but to hearten patients. He also added that he had family members in the nursing field and they encouraged him to pursue nursing. Similar to the other passion-driven male nursing student, he too had studied Elective Science in Senior High School and had chosen the nursing programme, right after completion. Unlike the other male nursing student who had developed a passion for nursing after his secondary education, he had had this passion since childhood. This passion together with support from family, meant he had broken the stereotypical rule that nursing is for women. He stated:

*Oh okay, erm, the reason I chose to do it is because I wanted to like, uhm, put a smile on the face of others, you know. It's, erm, it's something which actually, well, it is a*

*passion. When I was a kid, I wanted to do it. It was something I actually wanted to do. I wanted to put a smile on the face of others, yeah.* (Male Nursing Student, 19 years).

ii. *Available Alternative*

The theme, Available Alternative, was particularly frequent among the male nursing students. Unlike the female engineering students who were passion driven and who also had chosen a gender-untypical education programme, these respondents had wanted other options i.e., medicine or pharmacy. According to them, they were unable to meet their grade requirements necessary in pursuing either course but they did not want to leave the health sector. Thus, nursing was the *available alternative*. Neither of the female nursing students had chosen nursing because it was the only available alternative. During conversations with some respondents in the health field, the term “disappointed medical students” popped up when it came to matters regarding male nursing students. This term is popularly used to describe the male nursing students who did not make it to the medical school. A male nursing student divulged:

*The initial aim was to go into medicine, right? But then, erm, result wise, like, I wasn't that favoured in that area. So, I had the options of pharmacy and nursing. But I did not really like the pharmacy aspect. Yeah, I resorted to pick nursing instead.* (Male Nursing Student, 23 years).

Although he was disappointed about not gaining admission into medical school, he had consoled himself; pursuing nursing meant he was still in the health sector. This encouraged him. His family were equally supportive of him studying nursing. They were content that he was still in the health sector, which he liked.

Another respondent shared similar reason; his grades did not qualify him for admission to medical school. He had however, favoured nursing over pharmacy because with nursing, he would have close contact with patients. Pharmacy on the other hand, did not involve close contact with patients; he would only have to administer drugs.

He explained:

*So, I wanted to do medicine and then my results were not good enough. I would have chosen pharmacy but then, it's not really, hands on, like nursing or medicine. Yes, so, I chose nursing as, erm, my choice, yeah.* (Male Nursing Student, 22 years).

One respondent was bold enough to detail his challenges in trying to gain admission to the Medical School. After a couple of failed attempts, he resorted to studying nursing. Below is an extract of a discussion between a male nursing student “K” and me.

*K: And some of us too are, yes [chuckles], I don't want to put it as disappointed medical students. Yeah, something like that.*

*Me: Oh, you wanted to read medicine too?*

*K: Oh, yeah, but, yeah, that's what I wanted to do. I completed in 2016 and I applied but I didn't get. In 2017 too, I applied, I didn't get. In 2016, I applied very late.*

(Male Nursing Student, 24 years).

Although initially not their first choices, none of them regretted taking up nursing as they were still in the health sector. To them, nursing was closer to medicine than other health related sectors. By pursuing nursing, they had the opportunity to be closer to patients and be actively involved in their treatments. The dialogue below ensued between a male nursing student “P” and me.

*P: I decided to do a health-related course. I wouldn't say it was my first choice but I, I don't regret doing it.*

*Me: Okay, okay but what was your first choice initially?*

*P: Pharmacy.*

(Male Nursing Student, 21 years).

Both Nursing lecturers were aware that some of their male students had chosen nursing because it was the only alternative available. Both lecturers had had conversations with some of their male students, to find out their reasons for choosing to study nursing. The female nursing lecturer pointed out:

*But some males, also, erm, probably applied for other professions. I've spoken to one or two of them who say that, they maybe, applied for medicine; they didn't get admission and the closest health profession they could, I mean, venture is nursing. So, they find themselves in nursing.* (Female Nursing Lecturer, Mid 40's).

From the above extracts, it is clear that Medicine was the primary choice for most of these male nursing students. Medicine is one of the most prestigious professions in the Ghanaian society; it is quite tough gaining admission to the medical school, only the “best of the best” are selected. It is more prestigious for a man to pursue medicine than nursing, per societal

ideologies. Medical doctor identifies with masculinity, i.e., being in charge/leading. Nursing on the other hand, evokes submission, a quality which is ascribed to femininity. Nurses are submissive to medical doctors in most clinical settings. They take instructions from medical doctors. Hence, explaining the gendered perceptions many Ghanaians have about nursing and medicine. With the aim of these students to remain in the health sector, nursing is the better alternative. At least, with nursing, they feel closer to medicine than pharmacy.

iii. *Financial Gains and Future Job Opportunities*

Some respondents candidly stated financial stability and job opportunities as reasons for choosing to study their courses. To them, their courses would give them a plethora of job opportunities. They perceive that it will be easier for them to find jobs and earn appreciable incomes in the future. No nursing student respondent, however, stated this as his or her motivation.

A female Material Science Engineering student stated candidly that she chose to study her programme because of the financial stability associated with it. Material Science Engineering, indeed pays well and professionals in this field are in demand, particularly in the construction and manufacturing industries. A Material Science Engineer earns USD 78, 127 per annum (GH 474,398.00 /NOK 653,179.22), on the average<sup>25</sup>. This undoubtedly, is a very appreciable income in Ghana.

With the issue of unemployment levels and job insecurity in the country, some students find it safe to choose career paths, which assured them of readily available jobs.

*I chose this course because it doesn't limit me to one particular job, one particular, yeah, yes. Because in Biomedical, it is a broad erm, should I say, course. It has so many branches and so many job opportunities in each branch. Like it has so many job opportunities.* (Female Biomedical Engineering Student, 21 years).

Some of the male nursing respondents saw nursing as a stepping stone into branching into other health sectors. To them, nursing was a means to opening new opportunities within the health sector. They believed that with their background in nursing, diverting to other areas within the health sector, would not be a problem. One of them said:

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<sup>25</sup> [https://www.payscale.com/research/US/Job=Materials\\_Engineer/Salary](https://www.payscale.com/research/US/Job=Materials_Engineer/Salary)



*Okay, for me, I would like to enter into medicine err, in the near future like, in the future, yeah. (Male Nursing Student, 19 years).*

Another added:

*If, if you do the nursing, you have more opportunities, you can go to the medical school and definitely, when you go, you are going to perform. You can even perform well. You will perform better than the, than the students just coming from err, just doing the medicine directly. (Male Nursing Student, 24 years).*

The male nursing lecturer affirmed the idea of male nursing students using nursing as a stepping-stone to pursuing medicine. This was not popular among female nursing students. They mostly chose nursing because that is what they wanted to pursue. According to him, some male nursing students branched into medicine and graduated successfully. The following is an extract from the interview.

*MNL: Some [male nursing students] have also told me they are coming to do nursing because they didn't get Medical School and they are told that after Nursing, you could still use Nursing to apply to medical school.*

*Me: Is that true?*

*MNL: [nods] Many of our students have been there [Medical School] and have graduated.*

(Male Nursing Lecturer, Mid 50's).

With some male nursing students successfully entering the medical field, others are motivated to do the same. The main aim of some of these male nursing students, was to enter the medical school. Some are of the conviction that, with their background in nursing, they would excel in medicine as well.

### **5.3 Challenges**

#### *i. Teasing*

Some informants admitted that they were ridiculed because they had made gender untypical education choices. This was more dominant among the male nursing students I interviewed. They were often ridiculed by peers or friends whenever they made mention of their study programmes. These peers or friends included roommates and friends on the University Campus. It is logical of one to think that people in the academic society would think differently

when it comes to issues involving such negative gender stereotypes. However, these negative gendered behaviours or ways of thinking, have wormed their way into the academic setting. Although the academic community embraces modern ways of thinking with regards to gender equality, the archaic belief that some fields of study are for a particular gender still remains. A male nursing student lamented:

*People see a male nursing student and they will be like, 'Ah! You boy you dey do nursing?!'*<sup>26</sup> [Why are you a boy studying nursing?] *At times, my friends be like, 'Ah, but you, why you dey do this?'*<sup>27</sup> [Why are you studying this course?] (Male Nursing Student, 20 years).

Another informant added:

*People [friends on campus and at home] also kind of tease you, a male being a nurse, in our society, you usually see those things. So, they laugh at us, one way or the other.* (Male Nursing Student, 22 years).

The Ghanaian society has yet to fully accept the fact that men can also pursue nursing. The field is still heavily feminized. To the average Ghanaian, nursing embodies femininity. It aligns with female gender roles and the ideology of what it is to be a woman; being caring, submissive and nurturing. For a man to pursue nursing, he is not regarded as manly enough. Thus, men in nursing have to put up with derogatory and gender stereotypical comments. At times, the ridicule really upset the respondents to the point that, some think of dropping the nursing programme. One respondent lamented:

*Like they usually ask, 'Which course are you reading?' and you are like, 'I'm a nursing student', and I don't know, the reaction is quite funny. Sometimes it makes you, you want to leave the course.* (Male Nursing Student, 23 years).

The ridicule some of the male nursing students face, subjects them to role strain. In the typical Ghanaian society, masculinity embodies physical and mental strength, rigidity, dominance and built physique. Men who pursue nursing therefore are not conforming to the Ghanaian society's ideal of masculinity; they are not being "manly" enough. They feel embarrassed about their programmes to the extent that they are uncomfortable wearing their uniforms. This attitude

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<sup>26</sup> Pidgin English.

<sup>27</sup> Pidgin English.

creates low self-esteem amongst these males. It will equally take a toll on their commitment to the field as they do not feel appreciated or worthy. A male nursing student divulged:

*I know guys in my class, who really feel embarrassed about being teased so they try to go to the ward without wearing the uniform and all that. They don't want people to know that they are nurses.* (Male Nursing Student, 22 years).

The theme of teasing was not prominent among the female engineering students; only one respondent expressed that she had been teased. She had been ridiculed because it was perceived engineering would undermine her femininity. Femininity, in the typical Ghanaian society, embodies softness, nurturing, submissiveness and beauty. Hence, women who pursue educational and career paths that do not reflect their femininity, are not regarded as womanly; they are seen as competing with men/trying to take over from men. This at times, makes them unattractive to some men; some men find such women as threats to their masculinity. Consequently, resulting in role strain. Engineering is regarded as hard and rough. Thus, some people assume that pursuing such fields, masculinizes a woman; depreciating her femininity.

The respondent, a Computer Engineering student, described some of the ridicule she had been subjected to when people realized her educational choice:

*'Ah! Nice girl like you paaahn<sup>28</sup>[A very beautiful girl like you], this is the course you've gone to carry on your head!' and that, 'Oh, it will make you lose your beauty!' Someone telling me the course will make me lose my beauty because of the stress!* (Female Computer Engineering Student, 21 years).

The agentic role assigned to men do not conform with nursing. Thus, men who pursue nursing face ridicule as they have deviated from the “normal” or mainstream gender roles. Women are assigned to communal activities per societal gender roles. Therefore, women who deviate from this role to pursue educational paths or careers with agentic qualities (i.e., engineering), face problems. Such women, like men in nursing, would definitely be subjected to ridicule.

## *ii. Discrimination*

Both nursing and engineering students had faced some forms of discrimination. The ‘gender-typical’ students, i.e., male engineering and female nursing students, expressed no form of discrimination. The ‘gender-typical’ students, are pursuing careers that align perfectly with

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<sup>28</sup> Very popular Ghanaian expression, borrowed from the Akan language. It usually means “very”.

gender roles. They have conformed to what societal gender ideologies expect of them. Thus, they would not face any discrimination or ill-treatment based on their gender.

One informant, a female engineering student, described a scenario where a male student on campus had implied that she was too beautiful to pursue such a course and even went ahead to make suggestions.

*He was like, "Because of the stress, nice girl like me", I should go and study law or I should go and do erm, like journalism. That's what he was saying! He was like, he knows the course is very difficult `cause even the males suffer with it so how much more a female? (Female Computer Engineering Student, 21 years).*

This remark, though harmless from his (the male student who passed this comment) point of view, is discriminatory. As aforementioned, Ghanaian mainstream gender ideologies with regards to femininity include beauty, submissiveness, compassion and warmth. With the popular assumption that women who pursue rigorous career paths such as engineering threaten their femininity, it is common to hear such discriminatory comments. In addition to this, the fact that engineering can be difficult and demanding for men, fuels the negative assumption that it would be worse for women. Per societal gender ideologies, women are weak and too emotional for tough fields such as engineering. The stress may break them down and take a heavy toll on their physical and mental health; they are not considered to be as strong as men are. Professions/fields like journalism and law are usually perceived as suitable for women because they do not involve taxing physical strength like engineering does. Thus, their femininity would not be threatened in anyway. These stereotypes and gendered ways of thinking attached to engineering, causes some people to pass derogatory comments (un)intentionally.

The interviewed engineering lecturer highlighted how women could perform and even performed better than their male counterparts. This disproves the unfair popular notion that women underperform in engineering. He stated:

*You would be surprised to know that the top, the best student ever, in the whole engineering [faculty], was a lady! She was a lady! I didn't meet her but I heard she had a GPA of 3.8 or something (...) the best ever! She was like the standard for [brilliance, perfection] You know, so, yeah, the fact that it's male dominated doesn't mean that females can do it and can't do it well, no! Not at all. (Male Engineering Lecturer, Mid 30's).*

A female Biomedical engineering student also described a scene where a male colleague attributed her good grades to her gender. This is discriminatory as this colleague did not recognize the hard work and efforts she had put into studying. She revealed going out of her way to seek help from lecturers and Teaching Assistants whenever she had difficulties with certain topics. She also took group study meetings seriously. She noted that he (the male colleague) was not as serious as she was about the programme. He often submitted his assignments late and was not regular at group study meetings. He did not take his time to write out detailed lab reports either. To him, being a female meant it was easy to perform better. Females had it 'easy' in engineering.

*One time, they gave us assignment, like, when you leave the lab; you go and write a report. So, he [the aforementioned male colleague] was complaining about how he was getting low marks. And he was like, he wants to see my book. And to know how to also go about it so when he saw like I was getting good marks, he was indirectly implying that because I'm a girl and I was like, 'Ah! For real?!' Because, me, I'm working hard to get these grades and you are coming to tell me that because I am a girl! (Female Biomedical Engineering Student, 21 years).*

There is this popular perception in most Ghanaian universities that engineering lecturers tend to favour the female students over the male students. However, participants disproved this, saying that lecturers treated both males and females equally. They (the lecturers) tried to push the females to perform better by encouraging them to answer questions in class. Aside that, both genders had no preferential treatment when it came to grading academic work. Yet, the unfair perception that female engineering students are favoured over males still persist. This makes it difficult for some male colleagues to appreciate the efforts of their female counterparts. Hence, no matter the efforts women put into studying engineering, some men will always assume that their gender as women is responsible for their academic performance.

The issue of discrimination emerged again when an engineering student narrated her ordeals about being ignored by the males in her group. They preferred to take the suggestions of other male members to hers. They resorted to hers as last alternative and this frustrated her. She was being discriminated against because of her gender. The males in her group did not find her contributions as logical enough to be taken seriously. Being the only women amongst males, they would not pay much attention to her because of gendered behaviours borrowed from the traditional Ghanaian setting. In the traditional Ghanaian setting, a woman amongst men, must

listen to them and let them take charge of affairs. The men are the decision makers and the assertive ones. A woman's contribution, is usually seen as sentimental so it is not given much consideration. Although women can make suggestions, it is usually the man's opinions that are considered. This gendered mentality can be experienced in the academic society as well. Even though the academic society is a place for equal opportunities and benefits, it is incontestable that the archaic societal gendered ideologies have been woven into the daily activities of the University. The female engineering student bemoaned:

*My group is usually full of males (...) sometimes when we are having a group work or anything and I give a suggestion, and let's say, another male gives a suggestion, they [the males] are likely to accept his, even though mine makes sense. So sometimes, it's like, I will have to explain extra or something or maybe when they realize the point made [by a male] was really not tangible or strong, then they settle for mine, not because they wanted to but I think maybe because they had no other choice (...) I don't know if it's anger but I get frustrated because the point is there, I am explaining it and everything, and it makes perfect sense but it's like, they don't trust my point or something, and then, they go in for the male's own. (Female Engineering Student, 20 years).*

The men in her group would prefer to listen to their fellow males because they are the gender-typical students. Also, in some parts of the traditional Ghanaian society, men are considered as more rational than women. Thus, a man's contribution in such a setting would be taken over a woman's; he will speak based on logical reasoning rather than sentimental judgements. This negative behaviour can affect women's self-esteem and academic performance; they do not feel relevant in the field. However, in this particular case, the female engineering student affirmed that her academic performance was unaffected by such negative attitudes. The other female engineering students also divulged that their academic performance was not influenced by their gender nor the discrimination/stereotypical attitudes they faced. This contradicts with the findings of Bell et al. (2003) where female engineering students performed badly when faced with stereotypes and discrimination (see Chapter Three).

None of the female participants reported being sexually harassed; none of them had experienced sexual harassment in their respective engineering programmes. It seems the Engineering Faculty is doing its best to curb such unlawful practices. The male engineering lecturer disclosed that he personally did not allow female students into his office. He preferred

to address their problems in class, in the presence of their colleagues. He did this to avoid rumors of sexual misconduct on Campus, and to preserve his reputation. The University severely sanctions staff who engage in sexual misconducts with students.

Neither female professional engineer had faced discrimination and stereotypical attitudes at their workplaces. In contrast to the findings of Robert and Ayre (2002), where Australian female engineers constantly faced discrimination from their male superiors and male colleagues, the two female professional engineers in this study had not encountered that. They both admitted that their workplaces were supportive of women in engineering. The Civil Engineer went on to admit how her male superior encouraged her to do her best in the field. In addition to this, he eagerly sent her to perform various tasks associated with the field.

All male engineering respondents i.e., students and professionals, were supportive of women in engineering. Both male engineering students admired women who pursued engineering; they believed such women were breaking the masculine stereotype attached to engineering. Both men deemed such women very intelligent. This is as opposed to the findings of Madara & Cherotich (2016) and Stoilescu & McDougall (2011) in Kenya and Canada respectively, where male engineering students held discriminatory views against women in engineering (see Chapter Three), the findings of this study prove otherwise. This is a positive step in making women in engineering appreciated and welcome.

Some male nursing students had to put up with the discriminatory remarks and mannerisms of some people, particularly those outside the health sector. For a large part of the Ghanaian population, nursing is a woman's field/profession; it embodies the communal nature ascribed to women. Having men pursue such paths is stereotype disconfirmation as highlighted by Ellemers (2018) and Förster et al. (2000). As stated in Chapter Two, individuals who disconfirm to gender stereotypes face challenges in society; they are not following the "appropriate" gender paths expected of them. In this case, the society includes the University Campus, and the Ghanaian community outside the health sector. A male nursing student revealed:

*When you tell some people outside of the hospital that you do nursing, every, everybody thinks, like, 'Isn't it a girl's job?'* (Male Nursing Student, 22 years).

Some also attributed the low frequency of males in the nursing school to gender discrimination and the entire stereotypical attitude that it is a female's field. One respondent admitted that his

friends used to discourage him from pursuing nursing due to the aforementioned reasons. The following is an extract of the interview conducted between a male nursing student, Q, and me.

*Q: Okay, roughly, there are like thirteen males and one hundred and, one hundred thirty, yeah, one hundred and thirty err, females.*

*Me: And in your own opinion, what do you think is responsible for this?*

*Q: Oh, okay, I think [chuckles] it will be the gender discrimination and the stereotype that erm, Nursing is for only females. My friends used to discourage me from choosing that course.*

*Me: Oh. They actually discouraged you?*

*Q: Oh, yeah, yeah, yeah. They often did that, yeah.*

(Male Nursing Student, 19 years).

It is “normal” for close friends and relatives to discourage an individual who is deviating from mainstream societal gender ideologies or stereotypes. They (friends and relatives) would want to protect that individual from being chastised by society and also, to make sure gender ideologies and stereotypes are upheld. As gender forms the basis of differentiation in society (Lorber, 1994), it forms part of the culture of a particular group of people. Gender forms an important part in the Ghanaian culture. It forms the basis of power structure in the Ghanaian community and the interrelationship between both genders. Both genders have roles they play in society, for example, men leading and women, nurturing. These distinct roles show the power structure of the Ghanaian society; men are above women. For this reason, having males pursue paths that have been branded as feminine, upsets the gendered perception of what masculinity stands for. These men are not regarded as manly enough and face societal ridicule and discrimination.

Another respondent, male nursing student, found it discriminatory/unfair how examination questions focused more on women’s reproductive health as compared to that of the men. He stated:

*Sometimes, some of the things they teach, which are related to the females, for example, when it comes to the reproductive health, the reproductive system, there are some parts [like] the female genitalia (...) the woman can just look at herself and answer the question. But then, the man too doesn’t [chuckles] have those organs (...) they teach about the male genitalia as well but err, you know, usually they set questions on the women more than the men. (Male Nursing Student, 24 years).*



Both male professional nurses admitted to facing discrimination during their schooling days. One of them revealed how female lecturers made male nursing students feel unwelcome. To them, nursing was not a field for men; they were often rude to him and his male colleagues. They both disclosed that currently in their professional lives, they have earned the respect of many especially on the ward. Health professionals in their respective workplaces are very appreciative of their presence and contribution on the wards.

All female nursing respondents (students, professionals and lecturer) were in support of men pursuing nursing with the exception of the Midwifery student. She found it out of place for a man to pursue midwifery and nursing for that matter. Per her ideals, women were cut out for midwifery and nursing. Her ideals stem from mainstream societal gender ideologies and roles where men and women have been designated to specific roles that are 'appropriate' for them. Nursing is 'appropriate' for women as it reflects the 'caretaker' roles they (women) have been assigned to by society.

Gender-based discrimination is common among men in nursing and women in engineering. The negative gender stereotypes attached to both fields create inconducive environments for both genders. Even within the academic society where people are supposed to exhibit unbiases towards such negative stereotypical attitudes, there still remains an attachment to such ideologies and behaviours. In Ghana, people maintain old cultural norms together with the new cultural norms. Despite formal education and modernity, the attachment to gender ideologies and gender stereotypes remains deeply woven in the Ghanaian society.

### *iii. Gendered Division of Labour/Work and Discomfort of Female Patients*

The theme of Gendered Division of Labour/Work and Discomfort of Female Patients was particularly recurrent among the male nursing students. With respect to Gendered Division of Labour, male respondents reported how their female colleagues left most of the work, particularly leadership and preparation of slides to them. They (female colleagues) also tended to leave tasks that involved physical strength and technological skills to the males. These tasks included carrying patients, moving hospital furniture around, and preparation of presentation slides. A male nursing student stated:

*On the ward, in particular, erm, they [females] tend to leave some of the erm, jobs to, or some of the duties to the males because they believe those are like duties for people with more (...) who are more masculine [referring to male nursing students] (...) Then*

*in our classrooms too, uhm, I think it's similar to that on the ward. So, when it's time for, let's say, a presentation, or something, they [females] mostly leave, the, err, that duty, preparation of the slides, for the males, although we are few in the class but we take the responsibility and then, they [females] don't really help. (Male Nursing Student, 22 years).*

Another informant, male nursing student, added how the females expected the males to take up certain roles or positions. He asserted:

*There are certain things that they always expect the males to be doing, especially when it comes to leadership positions in the school. So, although we have females but erm, the president, the vice president of the school, we are all males. Yeah, I think we are seven executives, eight executives but we have only two ladies on it. (Male Nursing Student, 22 years).*

Despite being in a female dominated field, they (male nursing students) are expected to take on roles befitting the agentic characteristic of men i.e., taking on leadership positions, and performing tasks that involve physical strength and technological competence. In the Ghanaian society where the patriarchal structure is prevalent, leadership is mostly assigned to men. Hence, in the midst of women, men are usually given the mandate to lead. The women on the other hand, take on duties reflexive of communal behaviours. They prefer roles which involve care work and letting the men take charge. This gendered attitude among the males and the females in the nursing classes and on the ward reflect the influence of societal gender roles. Although they are in an academic society, where such gendered behaviours are not accepted, they still carry such gendered ideals because they have been socialized that way.

A nursing lecturer, from his observation and years in education, emphasized the gendered division of roles during practical sessions. He attested:

*They [the boys] take delight in those manipulative things, things that you can manipulate: infusion, calculation, (...) things that are theoretically based. But when it gets to caring for the patient, practical things that you'll do, they lack interest. Most of them like things that are technical (...) rather than the practice: "Go and make bed, go and serve bed pan, go and do this", the men don't like it. They like 'clean' ones, to learn about the clean ones. The men leave the women to learn about the 'dirty' ones. Even, it reflects in the ward. The men, some of them like the paperwork, "Oh, go and change infusion. Calculate the rate of flow. Go and*

*manipulate this figure, manipulate the cardiac monitor". These are the areas they like. They are very good, and the women like serving the patient, turning the patient, treating his wounds, and that's it. (Male Nursing Lecturer, Mid 50's).*

From the above statement, it is clear that even in the nursing field, there are certain aspects that have been gendered. The men prefer those aspects that are technical and mathematical, what the lecturer referred to as "manipulative" and "clean". These tasks did not involve the provision of intimate healthcare but focused more on handling tools and gadgets related to healthcare and calculations. These included setting up infusion stands, calibrating cardiac monitors and recording patients' vital signs (blood pressure, pulse rate, temperature). The mathematical aspect of nursing includes calculating the patients' rate of flow<sup>29</sup>. The women on the other hand, preferred the "dirty" aspects of nursing to the "clean" ones. The "dirty" aspect of nursing involves the provision of intimate healthcare to patients. It involves dressing patients' wounds, changing patients' beddings and handling bodily fluids. This gendered preferences stem from gender roles which have been socialized into individuals.

Masculinity has been associated to technology and calculations. Thus, men in society are expected to take up roles or career paths that reflect these traits. Women on the other hand, have been ascribed to nurturing and empathy. As a result, they are also expected to take up roles and career paths that reflect these qualities. With these gender roles imbued in our daily lives, right from childhood, men and women grow up and perform activities that reflect their gender roles (un)consciously. This behaviour is reflected in the nursing school. Despite pursuing a gender untypical programme, the men favour the technical aspects over the care work because it identifies with their agentic role. The women on the other hand prefer caring for the patients as it also reflects their communal gender role. There still remains a strong influence of mainstream societal gender roles and ideologies on the University of Ghana Campus, and as pointed out by the male nursing lecturer: *'It is the stereotype that is working into us.'*

Some male respondents expressed how uncomfortable some female patients were whenever they had to perform invasive procedures on them/ procedures that involved female patients exposing their private parts. For example, one male nursing student commented:

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<sup>29</sup> A mathematical formula in nursing used to calculate the amount of Intravenous fluids a patient needs over a specific time frame.

*The female patients, usually, when it gets to some procedures that they feel like, they wouldn't want the male to do it. Sometimes, it is not all of them because I have passed catheters for females, for some of them. Some of them would say no, they would be bare chested and all that.* (Male Nursing Student, 22 years).

Professional male nurses were equally confronted with the same issue. One of the professional male nurses shared similar experience. He disclosed:

*Some of the women don't open up when they see male nurses coming because you [male nurse] will be coming to see their nakedness (...). They are not comfortable seeing male nurses around them at all.* (Professional Male Nurse, 26 years).

Most women, are uncomfortable with the intimate healthcare provided by male nurses. Since the healthcare provided by male nurses have been sexualized (Harding et al., 2008), it difficult for them to work efficiently in the wards. Female nurses do not have this problem; there is no sexualization attached to the care they provide. It is “normal” for them to provide intimate services to both male and female patients. The sexualization of male nurses’ touch, possibly could stem from gender stereotypes where men who pursue fields that require intimate healthcare, are seen as perverts.

However, it was interesting to note that some female patients had no qualms being treated by male doctors or medical specialists (like gynaecologists) yet were ill at ease being treated by male nurses. Both male professional nurses and some of the male nursing students admitted to this. As stated by one of the professional male nurses, *‘They [female patients] are not comfortable seeing male nurses around them at all but then they are comfortable seeing the doctor specialist who is a male and a gynecologist.’* This phenomenon brings some form of complexity to the issue of inappropriate touch. Although male’s touch has been sexualized in many cultural settings (Harding et al., 2008), with the Ghanaian society being no exception, it seems this does not apply to male medical doctors. It seems male medical doctors do not have to be anxious and tensed when providing intimate care to female patients. The Discussion Chapter will delve deeper into this.

## **5.4 Coping Strategies**

The theme, Coping Strategies, looks at how men in nursing and women in engineering cope with all the negative experiences they face in their daily lives on campus and outside of campus.

Some of the coping mechanisms they mentioned include ignoring people who passed discriminatory remarks or behaved negatively towards them, defending themselves against such stereotypical and discriminatory behaviours, and reporting to superiors.

i. *Ignore*

Most respondents simply preferred to ignore the discrimination, ridicule or unfair treatment they had been subjected to because of their gender untypical educational choices. To them, they were able to perform well so there was no need paying heed to such negative behaviours. As pointed out by a female engineering student when asked how she coped with negative stereotypical attitudes and discrimination: '*Mostly, I ignore because I get my work done well*' (Female Engineering Student, 22 years).

Others viewed those who perpetrated such discriminatory acts as ignorant and not influential in their lives; they did not see any reason to pay attention to such people. A male nursing student attested:

*Well, they are, I see it as, they are ignorant because erm, entering Nursing, even before entering Nursing, I knew it wasn't something that's only for females. And moreover, a lot of people who seem to talk about it that way, aren't even impacting my life in any way, so I don't, I don't really care! I don't really listen to them. Because those who are impacting my life, that's my family and co [friends, influential people in his life] are all for it. (Male Nursing Student, 22 years).*

Ignoring negative attitudes and comments, is a passive coping strategy. These students prefer to turn a blind eye to such negativity and focus on their goals. They were confident of their abilities and had familial support, and this is all that mattered to them.

ii. *Defend or Retaliate*

Whereas some respondents let go or viewed those who discriminated against or ridiculed them as ignorant, others stood up for themselves. They tried to explain their reasons for entering such gender untypical courses. By doing this, the gender-untypical students aimed to enlighten them and eventually, curb the negative stereotypical attitudes they face on and outside of campus. A male nursing student pointed out:

*Oh, I don't ignore but I try to prove erm, my point. I try to prove the reason why I went into the nursing course. Yeah, they won't actually stop calling me those names*

*if they don't know the, you see, they don't get to know the reason behind what I am doing so I try to explain. Oh, I don't fight back. I just try to give them an explanation.*  
(Male Nursing Student, 19 years).

A female Computer engineering student revealed how people (on campus and out of campus) always assumed her programme was too difficult for women and that, it was better for men to pursue it. She defended herself by divulging how some men in her class could not cope with the demanding nature of the course as well as she could. She attested:

*Well, I tell them that they shouldn't say that (...) You don't have to say that because like it's difficult [only]males should do it. Because we all have different brain capacities (...) What I can handle, maybe a man in my class cannot even handle that! So, you can't say that.* (Female Computer Engineering Student, 21 years).

It is typical for people to assume that women are not mentally and physically fit for demanding programmes such as engineering, particularly Computer Engineering. The intensive mathematics and coding activities associated with the course are perceived as not feminine. Engineering has for a long time been identified with masculinity. The difficulty and intense logical reasoning are ascribed to males. Women, who are regarded as soft, weak and nurturing, are not fit for engineering; it does not align with femininity per societal mainstream gender ideologies. Even though some women in engineering outperform their male counterparts, it is still popularly stereotyped that the programme is too difficult for them.

At times, when these gender-untypical students stood up for themselves, it yielded positive results; people actually listened to them while others stopped teasing them entirely. One male nursing student stated that some of his friends accepted his reason for choosing to study nursing, through him standing up for himself. He said:

*Okay, so, that one basically gives me the opportunity to explain things to people because when friends meet and we are talking and like, you're a nurse and they start teasing and all that. So, it gives me the opportunity to, erm, explain things to my friends. So that, they will also erm, understand why a male can be a nurse and erm, I think, so far, they've, they've accepted my explanation.* (Male Nursing Student, 22 years).

Some informants admitted to retaliation only when overly provoked. They were not quick to silence negative stereotypical attitudes or comments. However, when the comments became overbearing, they lashed out. A female engineering student affirmed:

*Mostly, I ignore because I get my work done well. But if you push me to an extent, I will say something. I will say something to piss you off and you will be quiet.* (Female Engineering Student, 21 years).

Although harsh, this was how best she could defend herself against discrimination. This worked well for her. It stopped people from making her uncomfortable and gave her the peace of mind she needed to pursue her studies.

iii. *Report to Superiors and Trying to Include Female Colleagues*

Reporting to Superiors and Trying to Include Female Colleagues was pertinent to the male nursing students. Some had complained about how female patients found their healthcare services uncomfortable, and how their female counterparts left most of the group work/presentations to them. Regarding the discomfort certain female patients expressed about being treated by male nursing students, they (male nursing students) reported to the superiors. The superiors then handle the situation.

*If it is a, err, procedure that, that is a bit invasive that the patient won't want me to take it, I inform the in-charge or something.* (Male Nursing Student, 22 years).

Several studies have documented how some female patients are uncomfortable with healthcare provided by male nurses (see Bartfay & Bartfay, 2017; Finnegan, 2019; Harding et al., 2008 and Meyer, 2012). This is because the healthcare services provided by male nurses have been sexualized while that provided by female nurses, are rather viewed as caring (Harding et al., 2008). This makes it difficult for men in nursing to provide intimate care for female patients more especially. None of the male nursing students in this study, reported male patients being uncomfortable around them.

As stated early on, the male nursing students complained that their female counterparts usually burdened them with the bulk of group assignments and projects. In order to curb this, a male nursing student said he used his authority as a group leader to get his female members participate. He was making use of his masculine agentic role to involve the women. With his authority, it would be easier to assign each group member to a task. He stated:

*I am also the group leader for my, err, my group so with that, I've been trying to involve the ladies into preparation of the slides so that some of we the men, or the*

*males, would take part in the research work and other things.* (Male Nursing Student, 22 years).

These study results provide a clear description of the various experiences of men in nursing and women in engineering, particularly, the students. Men in nursing and women in engineering remain underrepresented in the University. The experiences and coping strategies of these students, grouped under themes, show how mainstream gender ideologies and gender stereotypes influence the study situation for students who make gender untypical choices at the University of Ghana. In sum, the gender-untypical students are confronted with challenges in their daily lives. They have to come up with coping strategies in order to sail through their academics. There is still a strong attachment to gender stereotypes even on the Campus of the University.



## **CHAPTER SIX**

### **DISCUSSION**

The previous chapter focused on empirical findings with respect to how gender stereotypes influence the experiences of these gender untypical students. It was established that the gender ideologies in the Ghanaian society with regards to what is suitable for men and women, is reflected in the academic society as well. Thus, many Ghanaians are still firmly attached to gender ideologies and stereotypes. Nursing and Engineering remain heavily gendered and gender stereotyped because of such archaic gender ideologies. This chapter will look at explaining the findings using the theoretical concepts highlighted in Chapter Two in conjunction with literature documented in Chapter Three.

#### **6.1 Gender Stereotyping of Nursing and Engineering**

The issue of few men in nursing and few women in engineering was conspicuous in this study. This issue was similar to the statistics from similar studies conducted in Ghana (see Boafo et al., 2016), the US (see DeVito, 2016; Hill et al., 2010; Wang & Degol, 2017), Denmark, Iceland and Norway (see Norfjell & Nielsen, 2019; Skjøstad et al., 2019), and Turkey (see Zengin-Arslan, 2002). This highlights how problematic it is globally. Men in nursing and women in engineering still remain underrepresented. Several scholars have documented that the association of nursing to femininity is responsible for the low percentage of men in the field (Bartfay & Bartfay, 2017; Harding, 2009; and Ozdemir et al., 2008). This makes it unattractive for a majority of men to consider pursuing nursing. Nursing for a long time has been identified with the female gender role i.e., care, compassion and softness. This contradicts the male gender role which is characterized by hardness, leadership and less emotional. Hence, discouraging the average male from pursuing nursing. The association of gender roles to educational programmes and career paths is responsible for the gender imbalance in the nursing field. This reiterates Eagly (1987) and Eagly et al.'s (2000) observation that women are more dominant in roles or fields that involve caring and human support. The Ghanaian society is no exception to this gendered allocation of career paths. As Kuenhyia (1995) emphasized, life in the Ghanaian society is regulated around an unwritten “gender contract”. There is no documentation on what work is appropriate for either gender in the Ghanaian society. However, through cultural transmission, every individual is socialized with gender ideologies and gender roles. Gender stereotypes which are a build-up of gender ideologies, are also transmitted

culturally (Robnett, 2016; Watson et al., 2017; Truz, 2020). Consequently, influencing the career paths and lifestyle of the average Ghanaian. In the very typical Ghanaian setting, both genders are expected to pursue paths that reflect their gender roles. The Ghanaian ideology of masculinity encompasses physical and mental strength, dominance and being less emotional. These masculine qualities, per Ghanaian societal standards, are not in tandem with nursing. Nursing evokes compassion and nurturing, qualities not ascribed to the average Ghanaian male. This discourages more Ghanaian men from entering the field.

Engineering has for a long time been associated with the masculinity (Faulkner, 2000; Frehill, 2004). The rigidity, physical and mental strength attached to the programme aligns more with the male gender role and contradicts with the female gender role. The association of engineering to masculinity does not encourage women into pursuing the field (Jacobs et al., 2005; Davis-Kean & Eccles, 2006). Since from a tender age, many girls are socialized that engineering is for boys (De Pillis & De Pillis, 2008), a majority of them grow up without considering engineering as a career path; they do not perceive engineering as appropriate for them (Archer et al., 2013). The assumption that engineering is masculine and its contradiction to the female gender role, does not attract a lot of women into pursuing the field (ibid.). This gendered perception is not uncommon in the Ghanaian community. Per Ghanaian societal standards, women are to pursue educational and career paths which reflect nurturing, warmth, and tenderness. However, engineering does not evoke these feminine qualities; it aligns more with masculine qualities. As such, more women than men are not attracted to the field.

Despite the underrepresentation of women across the various engineering programmes in the School of Engineering, they outnumbered their male counterparts in the Food Process Engineering Programme. These results were very much akin to the observations made by Zengin-Arslan in Turkey (2002). Her research showed how some engineering programmes tended to be feminized and Food Engineering was a part of such programmes. The concept of food, as prior elucidated, has always been associated to the female gender role. Women, for a long period of time, have been associated with the processing, preparation, distribution and storage of food (ibid.). As a result of this, the word 'food' has been synonymous to femininity or what a woman stands for. This gendered mentality exists in the Ghanaian society as well. With this gendered perception in mind, more women than men tend to offer this particular programme; it somehow aligns more with the female gender role as compared to other engineering programmes like Computer and Material Science Engineering. This phenomenon affirms West and Zimmerman's (1987) observation that gender roles support the gendered

division of labour in society. Even within a predominantly male programme, gender stereotypes and gender roles are prevalent. Food Process Engineering has been gendered as feminine.

## **6.2 Motivation of Gender-Untypical Students**

This study revealed that despite the negative gender stereotypes attached to engineering and nursing, there were still men who chose to pursue nursing and women who chose to pursue engineering. Passion or desire to help others, financial benefits and available alternative were the three motivating factors established in the findings.

### **i. Passion**

The findings of this study disclosed that some men pursue nursing because of their desire to help others; similar to the results of Boughn (2001), Mthombeni et al. (2018), and Whittock and Leonard (2003) in the US, South Africa and the UK respectively. With some of the male nursing students revealing their passion to help others, they exhibit the tenderness and care required in providing healthcare services. This contradicts the Ghanaian prescriptive gender roles ascribed to men. In this case, these men have broken away from the Ghanaian gender ideology about what it is to be a man. Most of the female engineering respondents in this study revealed that they had interest, passion or love for their respective fields, on par with the findings of Baryeh et al. (2000) in Ghana, and Matusovich et al. (2010) in the US. These women, have also broken away from mainstream Ghanaian societal gender ideologies of what it is to be a woman. Women are perceived as tender, warm, emotional and nurturing; communal characteristics ascribed to femininity. By displaying their love for logical and technical activities, these women have debunked the Ghanaian ideals associated with femininity.

### **ii. Available Alternative**

The fact that several of the male participants in this study opted for nursing as an alternative because they did not qualify for medical or pharmacy school, is not a phenomenon that is unique to Ghana. Similar studies conducted across the globe divulge the same results (Yang et al., 2004; Zamanzadeh et al., 2013). These men, particularly those who did not qualify for medical school are branded as “disappointed medical students”, which is similar to “want-to-be-physicians”, a term popularly used for their male counterparts in Canada and across the globe (Bartfay & Bartfay, 2017). Nursing became the available option as it meant these men would still remain in the health sector. As long as they remained in the health sector and had

close contact with patients, they were comfortable. As aforementioned, medicine aligns more with the Ghanaian concept of masculinity and the male gender role. Medical doctors are in charge of the patient and the nurse. They direct the nurses as to what to do with a patient and also tell the patient what to do and at times, how to go about his/her treatment. Thus, by directing and taking the helm of affairs of the patients' health and nurses' activities, medical doctors play agentic roles. Nursing on the other hand, echoes submission, a characteristic ascribed to the Ghanaian concept of femininity. Nurses are submissive to medical doctors in most clinical settings. Hence to these men, medicine was their initial choice as it reflected their gender roles. Nursing was never the first choice as it reflected the feminine gender role.

### **iii. Financial Gains and Future Job Opportunities**

Contrary to the findings of similar studies where attrition rates among male nursing students were high (Bell-Scriber, 2008; Ellis et al., 2006; McLaughlin et al., 2009, Mulholland, 2008; Prymachuck, 2009), the attrition rates among the male nursing students in this study was very low. Both nursing lecturers confirmed that there were hardly any cases of men dropping out of the Nursing School. None of the male nursing students in this study had any intention of dropping out of the Nursing School. Some, however, had plans to branch into other health related fields, tallying with the findings of Appiah et al. (2021). Nursing was a stepping-stone to achieving that. All the male nursing students who were using nursing as a means of diverting into other health fields, had not initially wanted to pursue the field. They had unqualified for medical or pharmacy school. These men are using nursing as a stepping-stone to divert to other sectors of health probably because nursing is in conflict with the Ghanaian perception of the male gender role. The femininity attached to nursing makes it difficult for some of these men to forever remain in the field as bedside nurses. Some of the respondents made mention of branching into anaesthesia, medicine, becoming hospital administrators and lecturing. Notably, these sectors, identify more with the Ghanaian perception of the masculine gender role. These jobs are reflective of leadership, assertiveness and mental/physical strength, traits which are attributed to masculinity.

It was worth noting that none of the male nursing respondents in this study mentioned job and financial security as their (primary) motivation, incongruent with the results from similar research conducted across the globe (Appiah et al., 2021; Baljoon et al., 2018; Boughn, 2001; Fooladi, 2003; Yang et al., 2004; Zamanzadeh et al., 2013; Zysberg & Berry, 2005). To the male nursing students in this study, nursing was either a stepping-stone to a plethora of health-related opportunities or an altruistic desire.

Unlike most of the female engineering students who mentioned passion as their motivation for pursuing engineering, others mentioned readily available jobs, job opportunities and financial stability as their motivation. This is congruent with reports from similar studies conducted in the US (see Anderson-Rowland et al., 2013; Matusovich et al., 2010). They would become financially stable and could contribute their quota to the upkeep of their homes.

### **6.3 Challenges of Gender-Untypical Students**

One of the key findings in this study was that, despite being in an academic society, men in nursing and women in engineering still faced negative stereotypical attitudes and gender-based discrimination. This reiterates Kessler and McKenna (1985) and Lorber's (1994) observation that gender pervades all spheres of human life and interaction. The study identifies that these negative stereotypical attitudes and discrimination result from the socially constructed gender ideologies about appropriate and inappropriate work for men and women in the Ghanaian society; men must take on careers that reflect their physical strength and dominance and women must pursue paths that reflect nurture, care and submissiveness. McDowell (1997) asserts that it becomes a 'problem' when individuals make gender-untypical educational and ultimately, career choices. Hence, by disconfirming to traditional Ghanaian gender ideologies, these gender-untypical students are not adhering to mainstream Ghanaian societal norms. This could explain why they face all sorts of challenges in their daily lives on and out of campus.

#### **i. Teasing**

The male nursing students in this study admitted to being teased or ridiculed by peers on campus and people outside the University setting. This issue of societal ridicule or teasing corresponds with the findings of Abushaika et al. (2014) and Yang et al. (2017) in Jordan and Taiwan respectively, where male nursing students were subjected to societal ridicule and mockery. In the Ghanaian society, men are perceived as physically and mentally strong individuals who have to take on work or duties that reflect these characteristics. Professions like carpentry, computer technician and engineering, are deemed suitable for men; they reflect 'manly' traits. Men who pursue nursing are not seen as 'manly' or 'masculine' enough because they were pursuing a field that has been deemed a feminine profession. It was established in the findings that some of the male nursing students feel embarrassed in their nursing uniforms and would rather not put them on. The ridicule from peers and society subjects some of these students to gender role strain. The mockery from peers and persons in society, eventually wears

them down. This could explain why some male nursing students stopped wearing their nursing uniforms. Nursing identifies with the communal role assigned to women. According to gender role theory, men are to take on duties or work that reflect their agentic nature i.e., exerting physical, mental and emotional strength, being assertive and domineering. By pursuing nursing, they have deviated from the socially constructed role assigned to them. They are not being ‘men’ by pursuing nursing. This was evident in the ridicule the men in nursing in this study faced. Their peers on and out of campus ridiculed them because they were studying a ‘feminine’ programme; making them less manly than they should be. Unlike the Australian male nursing students in Harding’s (2007) study who had to prove their heterosexuality and were often tagged as gay, the male nursing students in this study had not experienced such criticisms of sexuality. This could be due to the fact that the average Ghanaian acknowledges heterosexuality more than the other types of sexuality. In addition to this, apart from heterosexuality, all other forms of sexuality are illegal in Ghana.

Women, on the other hand, are seen as physically and mentally weaker as compared to men. This perception is present in the Ghanaian society as well. Per traditional Ghanaian gender ideologies, women are regarded as more empathic and submissive and hence they are perceived as less suited to perform physically and mentally demanding tasks or duties. Women are expected to pursue paths that are reflexive of their tender and communal nature. Teaching and nursing are regarded as very suitable for women; they align with feminine gender roles. Hence, women in engineering, like men in nursing, disconfirm gender stereotypes and the traditional Ghanaian ideology about femininity. These women are not considered ‘feminine’ enough and as such, sometimes have their femininity undermined; subjecting them to gender role strain. The taunts of pursuing a ‘manly’ programme because of their female gender, eventually stresses them out. The ridicule or mockery the respondents in this study faced, are part of the challenges associated with stereotype disconfirmation.

## **ii. Discrimination**

The discrimination faced by both men in nursing and women in engineering stem from negative gender stereotypical behaviours. These men and women are going contrary to what is ‘suitable’ for a man and woman i.e., stereotype disconfirmation (Ellemers, 2018; Förster et al., 2000); individuals who disconfirm to stereotypes face challenges. Nursing is perceived as a woman’s profession as it reflects femininity. The affiliation of females to nursing is so dominant in many societies globally, that many individuals seem to find it difficult to attune males to the role of a nurse (Clow, Ricciardelli, R. & Bartfay, 2014; Sherrod & Rasch, 2006). This explains why

people reflexively describe a female with motherly characteristics when asked to describe a nurse (Oakhill, Garnham, & Reynolds, 2005; Tranbarger, 2007; Yang et al., 2004). Nursing basically aligns with the gendered ideology of being a woman, i.e., nurturing and caring for others. This gendered ideology is existent in the Ghanaian society as well. As such, men who pursue this feminized profession have disconfirmed traditional gender stereotypes. They have gone against what masculinity embodies in the Ghanaian society, i.e., dominance and assertiveness. Hence, the gender-based discrimination these men face is not unusual. They know they face discrimination because they are pursuing a gender untypical programme or profession. The discrimination the male nursing students in this study were subjected to, corresponds with other findings from similar studies in Ghana and Canada (see Appiah et al., 2021; Bartfay et al., 2010; Bartfay & Bartfay, 2017; Bartfay & Davis, 2001).

Likewise, women in engineering facing discriminatory acts are not unusual. Similar to men in nursing, they have deviated from the typical gender ideological construction of what is appropriate for women. Gender ideologies, even in the Ghanaian context, expect women to take on roles and behaviours that reflect communality. As earlier stated, the whole concept of engineering embodies masculinity. The Ghanaian society equally assumes this gendered perception. Women in engineering tend to be criticized and discriminated against because of this. The findings from similar studies in Ghana, Australia, Kenya, and Canada (see Boateng, 2017; Roberts & Ayre, 2002; Madara & Cherotich, 2016; Stoilescu & McDougall, 2011) show the same problem of gender-based discrimination against women in engineering. The findings in the previous chapter, revealed the case of the female engineering student whose male colleagues paid less attention to her contributions because of her gender. This form of microaggression reiterates Cabay et al.'s (2018) observation about engineering being unfriendly to women. The authors note that engineering is usually rife with microaggression, a characteristic of the masculine culture of engineering. Her situation also corresponds to the findings of Baryeh et al. (2000), Madara & Cherotich (2016) and Stoilescu & McDougall (2011) where male engineering students looked down upon their female counterparts; they did not find the females as logically inclined enough to pursue engineering. Thus, all contributions women made were not prioritized or considered.

Although there is evidence to prove that women in engineering and men in nursing actually perform well and at times even better (see Bell et al., 2003; Codier & MacNoughton, 2012; Mthombeni et al., 2018), the gendered perception society has towards these professions, causes them to face discrimination in their everyday lives. This affects their self-esteem and subjects

them to gender role strain. Both male nursing and female engineering students expressed discomfort in pursuing their respective fields because of the discrimination they faced.

### **iii. Gendered Division of Labour and Discomfort of Female Patients**

The findings of this study have revealed the gendered division of labour among men and women in nursing. Drawing inference from gender division of labour theory<sup>30</sup>, society divides work among men and women, according to socially-constructed gender roles or what is considered suitable for each gender. This means that men are to take up jobs or work that are reflective of their masculinity (agentic roles). Women ought to take up work that are reflective of their femininity (communal roles).

Although recognized as a woman's domain, there are certain tasks or duties that have been gender categorized. Carrying patients, taking up leadership positions and performing "manipulative" or "clean" duties, are mostly assigned to and or, preferred by male nursing students. These activities involve physical strength, dominance and technical or mathematical prowess and thus, are reflective of the Ghanaian concept of the male gender role. The findings in this study validate existing literature on male nurses' preference for technical aspects of nursing (Lo & Brown, 1999; MacDougall, 1997; Stott, 2007; Streubert, 1994; Tumminia, 1981). This study's findings equally confirm literature that emphasize that men in nursing are usually assigned leadership roles (Anthony, 2004; Chan et al., 2014; Kleinman, 2004).

The females on the other hand, are assigned to or prefer roles that involve providing intimate healthcare to patients ("dirty" work). This gendered preference is reflexive of the female gender role. Nurturing and caretaking have for centuries been regarded as a female's inborn ability and gender role (Kray et al., 2017); it is not surprising that women in nursing reflexively prefer such duties. This study disclosed how women in nursing often left leadership positions to their male counterparts. According to gender ideologies, men are the leaders or decision-makers. Women are supposed to heed their directions. These ideologies are socialized to the Ghanaian child and he or she grows up, acting upon such ideologies. The women in the nursing school, acting upon traditional gender ideologies, deem it suitable for a man to lead them despite the fact that they (women) dominate the nursing field. To them, it behoves upon the males to lead as they are perceived as better leaders (Chan et al., 2014) and it aligns with their male gender role. The division of tasks among the male and female nursing students show a reinforcement of gender stereotypes. This validates Charles and Lopez's (2017) statement about how gender

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<sup>30</sup> <https://archive.unescwa.org/gender-division-labour#:~:text=The%20division%20of%20labor%20refers,and%20valuable%20for%20each%20sex>



division of labour buttresses gender stereotypes. Both men and women are performing tasks that attune with their gender roles. It is also noticeable that both male and female nursing students are “doing gender”; performing roles as a set of sex-typed behaviours that they have learnt to display in social interaction (West & Zimmerman, 1987).

In addition to the above, the gendered division of labour in the nursing school emphasizes gender dichotomies borrowed from the traditional Ghanaian culture as well as Florence Nightingale’s ideals. The lead/follow divide witnessed amongst the nursing students, where the men are expected to take on leadership roles and the women prefer to follow them (the men), demonstrates socially constructed idealized apposite concepts of masculinity or femininity (Reimann, 2014). This creates a distinction between men and women in the nursing programme. Leadership is conceptualized as masculine whereas following is conceptualized as female. The hard (technical aspects of nursing, carrying patients) and soft (treating and caring for patients) divisions among these nursing students reflect what it is to be male as opposed to female (Dickson & Jones, 2006). The hard and technical parts of nursing have been conceptualized as masculine while the soft part of the programme, have been idealized as feminine. These divides or distinctions reveal how traditional Ghanaian gender dichotomies influence the activities in the academic society.

The male nursing students and professional male nurses found it problematic providing intimate care to female patients; substantiating Inoue et al.’s (2006) observation. The authors noted that providing intimate care to female patients is one of the arduous challenges men in nursing face. The respondents in this study (male nursing students and professional male nurses) admitted that some female patients were uncomfortable whenever male nurses had to treat them. None of the female nursing respondents had experienced such issues; akin to the research findings of Christensen and Knight (2014) in New Zealand [see Chapter Three]. Their male gender is responsible for the negative experiences they face when dealing with female patients. The Ghanaian social construction of being a man does not embody sympathy, warmth and nurturing. These socially constructed ideals are ascribed to being a woman. Hence, most people find it out of place for a man to provide such intimate healthcare services. As aforementioned, the social construction of being a woman in the Ghanaian culture, encompasses care, warmth and softness. Thus, it is ‘appropriate’ for women to provide intimate healthcare services. In this case, gender acted as a differentiating principle (*gender as difference*) as the roles and norms attached to being a male in the Ghanaian society are in contrast with the feminine ideals and characteristics attached to nursing. This creates a

distinction between male and female nursing students, and is responsible for their different experiences in the nursing programmes especially in the provision of intimate healthcare to female patients. In addition to this, nursing does not reflect the social construction of what it is to be a man in the Ghanaian community. The Ghanaian ideals of masculinity and the gendered perception of nursing are contradictory. Hence, revealing how the *social construction of the male gender* in the Ghanaian society creates challenges for men in nursing.

#### **6.4 Coping Strategies of Men in Nursing and Women in Engineering**

Men in nursing and women in engineering develop strategies to survive in their respective fields. Being the untypical gender, it was important to come up with strategies to make themselves comfortable enough to achieve their academic and professional goals.

##### **i. Ignore**

From the findings, it was established that some of the male nursing students ignored discriminatory acts, gender stereotypical behaviors and ridicule. This is identical to the results of Kronsberg et al. (2018) where the respondents (American male nursing students and professional male nurses) simply ignored the negative attitudes they faced daily. By ignoring such derogatory behaviours, these men are able to focus on their studies and persevere in the nursing field. A few of the male nursing students in this study mentioned that familial support was most important to them; they paid no heed to those who mocked them. Support from family and other persons of importance are helpful in the realization of goals (Henderson & Berla, 1994). As stated in the theoretical chapter, there are certain traits that overlap or intersect with one's gender to bring about either privileges or discrimination (Coaston, 2019); in this particular case, these traits can bring about a coping strategy. Here, familial support is the trait that overlaps the gender of these male nursing students. Because their families support and encourage them, despite pursuing a gender-untypical programme, these men do not succumb to negative stereotypical attitudes. They comfortably pursue their nursing goals knowing that their families support them.

Although some of the female engineering students in this study admitted to ignoring gender stereotypical and discriminatory attitudes, most literature highlight that woman in engineering act like men, build a reputation and occasionally, accept discriminatory acts, in order to cope with the challenges, they face (see Powell, Dainty, Bagilhole, & Neale, 2005; Powell, Bagilhole

& Dainty, 2009). Like the men in nursing, by ignoring all these negative attitudes, these women could focus on their studies in order to achieve their set goals.

## **ii. Defend or Retaliate**

Both men in nursing and women in engineering, at times, retaliate or defend themselves against negative stereotypical and discriminatory behaviours. From the findings, it was revealed that defending themselves usually yielded positive outcomes. People (both academic and non-academic society) understood the reasons behind these gender untypical students choosing their respective programmes. The case of the male nursing students defending themselves was congruent with the findings of Kronsberg et al. (2018) [see Chapter Three].

Some of the female engineering students did the same, defending or retaliating when confronted with negative stereotypical attitudes and discrimination. Some even used harsh words to tell off those who passed stereotypical comments or discriminated against them. This worked well for them; they could focus on their studies.

## **iii. Report to Superiors and Trying to Include Female Colleagues**

As aforementioned, the theme of reporting to superiors and trying to include female colleagues in academic work, was pertinent to the male nursing students in this study. Evidence from existing literature disclose that quite a number of female patients are uncomfortable being treated by male nurses (Harding, 2007; Harding et al., 2008; Meyer, 2012) and the accounts of the male nursing students and professional male nurses in this study are no different. According to them although there were some female patients who were comfortable with male nurses treating them, a large majority were uncomfortable or even sceptical. The construction of conceptualization of masculinity in the Ghanaian society does not include warmth, care and empathy. Hence, some people simply cannot reconcile the male gender with the nursing profession. In addition to this, male nurses' touch tends to be sexualized (Evans, 2002; Harding et al., 2008), fuelling popular stereotypes about male nurses being perverts (Appiah et al., 2021). The Ghanaian society is not exempted from this negative stereotype of male nurses. Findings from Appiah et al.'s (2021) study regarding Ghanaian male nurses disclosed how some Ghanaians perceived male nurses as perverts or sexual predators. These negative stereotypes and perceptions about male nurses make some female patients uncomfortable around them. The male nursing respondents in this study attested to reporting to superiors whenever female patients were uncomfortable with them. This finding tallies with that of similar research (see Kronsberg et al., 2018).

Although some female patients were not comfortable being treated by male nurses, they eagerly accepted the care from male medical doctors, to the extent of seeking gynaecological assistance from male gynaecologists. Though complicated, this phenomenon could be explained on the basis of intersectionality. Medical doctors are of a higher social status as compared to nurses. There is also more prestige attached to medicine in the Ghanaian community as only exceptionally brilliant students are admitted to medical school. Despite the popular stereotype of men's touch being sexual, male medical doctors are exempted from this stereotype because of their social status, gender and education.

It was worth noting that the male nursing students in this study, employed their masculinity to involve their female colleagues. Masculinity embodies dominance and leadership. The Ghanaian society recognizes these as part of masculine traits. The Ghanaian society is built on patriarchy. Men are supposed to lead, dominate and be physically and mentally strong. They are not allowed to express so much weakness and indecisiveness. Men who display such weakness are not regarded as manly enough. Although belonging to the minority in nursing, men in nursing are expected to display their masculinity by taking the helm of affairs. Their female colleagues, who formed the majority, expected them to lead while they simply followed suit. This phenomenon could be attributed to gender ideologies where per mainstream Ghanaian norms, it is more appropriate for men to lead and women to follow. By accepting their agentic characteristics and directing their female counterparts as to what task to perform, these men were able to get their female colleagues on board. This also helped reduce the burden of having to do everything by themselves.

This chapter sums up how mainstream gender ideologies and gender stereotypes in Ghana, impact the study situation for men in nursing and women in engineering. Some of the findings were congruent with those of similar studies across the globe, revealing how alike the situation is for men in nursing and women in engineering in spite of the cultural differences. The use of gender theories helped explain the reason behind the situations these gender-untypical students found themselves. This study also revealed new findings with respect to coping strategies Ghanaian gender-untypical students employed. These included ignoring gendered stereotypical remarks and behaviours, and using harsh words to ward off negative stereotypical and or discriminatory comments. These new findings have revealed certain gaps in similar studies that need more focus. Even though some people are appreciative of men in nursing and women in

engineering, from the findings, it is incontestable that typical gender stereotypes prevail in the Ghanaian society with the academic society being no exception. Mainstream gender ideologies do go a long way into shaping the lives and experiences of the average Ghanaian student. Students who choose gender untypical paths have to contend with gender stereotypes. This does not have to be so. From the findings of this study in conjunction with similar ones, men in nursing and women in engineering are capable of delivering good academic and professional performances. Negative gender stereotypes are unjust and inhibit the capabilities of men and women in the society.

## CHAPTER SEVEN

### CONCLUSION

The main aim of this study was to divulge how gender stereotypes influence the study situation for men in nursing and women in engineering in the University of Ghana. The study applied theories on gender as a theoretical framework for analysis. Semi-structured interviews were the main methods used to produce data.

The main research question was “*How do gender stereotypes influence the study situation for students making gender-untypical educational choices at the University of Ghana?*” Chapters Four, Five and Six of this study have addressed the findings and discussions related to this research question, as well as the three research objectives. The following paragraphs will summarize the key findings and concluding remarks.

#### 7.1 Key Findings

In the attempt to answer the research question, three objectives were formulated:

1. *To explore the reasons behind male nursing students and female engineering students choosing such gender-untypical programmes.*
2. *To divulge the experiences of male nursing students and female engineering students.*
3. *To identify the coping strategies of these students.*

With respect to the first objective, this study finds that passion for the programme was the driving force behind their gender-untypical choices. Zamanzadeh et al. (2013) classify passion as an intrinsic motivating factor. The interviewed students had intense desire for their respective gender-untypical programmes, irrespective of the fact that they were not conforming to gender stereotypes. It was also established that unlike majority of the female engineering students who were passion driven, only two male nursing students purposefully chose nursing because of their love for the profession. This highlights how the popular mainstream gender ideology that nursing is for women, causes a majority of Ghanaian males to find the programme unattractive. Available Alternative, was the second reason which was predominant among the male nursing students. Some of the male nursing students in this study chose nursing because it was the only available option as they had been denied admission to medical and pharmacy schools. Other respondents also chose to pursue gender untypical fields because of the financial

gains and future job prospects associated with these programmes. To some of the male nursing students, nursing was a stepping-stone to diverting to Medicine and other health related sectors.

Regarding the second objective, this study identified that male nursing and female engineering students were subjected to ridicule and gender based discrimination. The negative experiences they faced were as a result of stereotype disconfirmation and not conforming to gender ideologies. Despite being in an academic society where such gendered prejudices and stereotypes should not be tolerated, these students were either teased or discriminated against. Some had their masculinity and femininity undermined, subjecting them to gender role strains and high levels of discomfort. This reiterates McDowell's (1997) statement of how 'problematic' it is when one pursues a gender untypical educational choice and career path. The male nursing students also revealed how their female counterparts left a lot of tasks to them, particularly the ones that involved technical skills and physical strengths. In addition to this, some male nursing students described how uncomfortable some female patients were around them. None of the female nurses, both professional and students, faced this challenge. It was also established that male medical doctors did not face problems with female patients as being a medical doctor has a higher social status as compared to being a nurse.

In order to cope with these challenges, respondents either ignore or retaliate. Those who ignore do so because they already have the support from family and friends who matter most to them. Others were confident of their performance so saw no need to retaliate. There were also some respondents who attested to defending themselves from negative stereotypical behaviours. While others resorted to educating those who mocked them, others resorted to harsh measures, like using hurtful words. Though offensive, this was how best they could defend themselves and prevent such discriminatory acts from happening frequently. The male nursing students who came to contact with female patients who were skeptical about them, reported to their superiors. This was how best they could ease the tension between them and the female patients. In order to get their female colleagues to participate, some of the men used their masculinity to their advantage. By taking the helm of affairs, they were able to assign duties to their female counterparts. This clearly shows how gendered roles and ideologies still hold strong influential ties in the academic community.

These findings show how deeply mainstream gender stereotypes are woven in the Ghanaian society with the academic community being no exception. Gender ideologies and stereotypes influence the motivation and challenges of students who make gender untypical educational

choices at the University of Ghana. In order to cope with these challenges, these gender-untypical students develop strategies such as defending themselves and ignoring gender stereotypical remarks.

## **7.2 Concluding Remarks**

In this study, it is evident that gender stereotypes and ideologies play significant roles in the study situation of gender-untypical students. The differing experiences of both gender-typical and gender-untypical students stem from traditional gender ideologies and the colonial history of education in Ghana. Gender stereotypes exist in the academic community and as such, students who deviate from these gender stereotypes face challenges in their daily lives on campus. It behoves upon academic authorities and the average Ghanaian to make a concious effort to accept that men can be nurses and women can be engineers. The School of Nursing and Faculty of Engineering could develop policies which will encourage the enrollment of more gender-untypical students. Also, persons in the academic society who discriminate against gender-untypical students should be disciplined. This will deter others from doing same.

Teaching in nursing classroms should focus on both men and women's health. It is just to focus equally on both genders. This way, there would be sufficient knowledge of on the health of both genders. The students would be well-equipped in handling either gender and the male nursing students would not feel left out. By teaching on men's health as sufficiently as that of women's, the male nursing students would feel a sense of belonging as they feel included or recognized in the nursing field. In addition to this, the efforts male nursing students make in school, should be lauded. This will make them comfortable and proud to remain in the field. Likewise, female engineering students should be appreciated and encouraged to do better to break the stereotype that engineering is for men. This will help create a conducive environment for studies.

More research should be conducted on the challenges Ghanaian male nurses and female engineers face and how they cope with such challenges. This will contribute to the gap in literature in this particular topical issue. Hopefully, this study would contribute to an enhanced understanding of gender stereotypes and how gender ideologies together with gender stereotypes influence academic choices and experiences of gender-untypical students.



## CHAPTER EIGHT

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## APPENDIX

### **Interview Guides**

#### **Nursing Students (Men)**

1. Age:
2. Course/Specialization:
3. Level:
4. Where were you born and where do you live?
5. Are you married? Do you have children?
6. I believe you are aware that the course you are taking a gender stereotypical course.  
What do you think about that/what is your take on that? – Archaic, wrong?
7. What are your reasons for choosing to study this course?
8. How many men and women are in your class?
9. What have been your experiences in studying so far, being a man taking this course:
  - a) Challenges?
  - b) How do you cope with them?
10. How would you describe your academic performance – very good, good, fair, poor?
11. Do you believe that your gender has had any influence on your academic performance?
12. How do academic staff (lecturers) relate to you, being a man studying nursing?
13. What of your female mates, what is the relationship between you and them?
14. Where do you see yourself, say in 6 to 10 years' time?
15. Would you encourage other men to take up nursing?

#### **Nursing Student (Women)**

1. Age:
2. Course/ Specialization:
3. Level:
4. Where were you born and where do you live?
5. Are you married? Do you have children?
6. I believe you are aware that the course you are taking a gender stereotypical course.  
What do you think about that/what is your take on that?
7. What are your reasons for choosing to study this course?
8. How many men and women are in your class?
9. What have been your experiences in studying so far:

- a) Challenges?
  - b) How do you cope?
10. How would you describe your academic performance – very good, good, fair, poor?
  11. Do you believe that your gender has had any influence on your academic performance?
  12. How do academic staff (lecturers) relate to you, being a woman studying nursing?
  13. What of your male counterparts, what is the relationship between you and them?
  14. What do you think of men studying nursing?
  15. Where do you see yourself, say in 6 to 10 years' time?

**Nursing Lecturer (Woman):**

1. Estimate age
2. What exactly do you lecture?
3. How long have you been lecturing?
4. I believe you are aware nursing in general, is popularly stereotyped as a woman's profession. What do you think about that?
5. Do you have or have you ever had men in your class?
6. What has been the trend of men in the nursing school ever since you started lecturing- very few men, increasing numbers, decreasing?
7. What do you think of male nursing students – generally, performance, behaviours?
8. How do you relate to them in class (do you treat them differently...)?
9. What of the women, how do you relate to them?
10. Generally, what is the academic performance of the men as compared to the women- excellent, very good, fair, poor?
11. Do you believe their gender influences their academic performance?
12. Are there any policies or rules that encourage men to take up nursing?
13. Would you encourage men to take up nursing courses?

**Nursing Lecturer (Man)**

1. Estimate age
2. What exactly do you lecture?
3. How long have you been lecturing?

4. I believe you are aware nursing in general, is popularly stereotyped as a woman's business. What do you think about that? What is it like being a man in such a female dominated field?
5. Why did you take up nursing?
6. What have been some of your experiences taking up such a gender stereotypical course – challenges, opportunities, and how do you cope with the challenges?
7. Do you have or have you ever had men in your class?
8. What has been the trend of men in the nursing school ever since you started lecturing- very few men, increasing numbers, decreasing?
9. What do you think of male nursing students – generally, performance, behaviours?
10. How do you relate to them in class (do you treat them differently...)?
11. What of the women, how do you relate to them?
12. Generally, what is the academic performance of the men as compared to the women- excellent, very good, fair, poor?
13. Do you believe their gender is responsible for their academic performance?
14. Are there any policies or rules that encourage men to take up nursing?
15. Would you encourage men to take up nursing courses?

### **Professional Nurses (Both Women and Men)**

1. Age:
2. Sex:
3. Marital status:                      Children:
4. If married and have children, how do they cope with work and family life?
5. Occupation/Specialization:
6. Duration of occupation/specialization:
7. What motivated you to take up this job?
8. I believe you are aware that nursing is deemed a woman's job. What is your take on that?
9. Which nursing school did you attend?
10. What were your experiences back there- challenges, relationship with lecturers?
11. Did you have male colleagues back at school? What was your relationship with them?
12. How often do you come across professional male nurses? What do you think is responsible for this frequency?

13. Would you encourage more men to take up nursing?

**Engineering Students (Women)**

1. Age:
2. Course:
3. Level:
4. Where were you born and where do you live?
5. Are you married, do you have children?
6. I believe you are aware that engineering is usually perceived as a course for men. What do you think about that?
7. Why did you choose this course?
8. What have been your experiences in studying so far, being a woman:
  - a) Challenges?
  - b) How do you cope?
9. How many women are in your class?
10. How would you describe your academic performance – very good, good, fair, poor?
11. Do you believe that your gender has had any influence on your academic performance?
12. How do academic staff (lecturers) relate to you, being a woman studying engineering – (negligence)?
13. What of your male counterparts, what is the relationship between you and them – (any discrimination, sexual harassment)?
14. Where do you see yourself, say in 6 to 10 years' time?
15. Would you encourage other women to take up engineering?

**Engineering Students (Men)**

1. Age:
2. Course:
3. Level:
4. Where were you born and where do you live?
5. Marital status, children?
6. I believe you are aware that engineering is perceived as a course for men. What do you think about that?

7. Why did you choose this course?
8. What have been your experiences in studying so far - Challenges and how do you cope?
9. How would you describe your academic performance – very good, good, fair, poor?
10. Do you think your gender has a role to play in that?
11. How do lecturers relate to you-(any special treatment) as compared to female students?
12. Do you have women in your class? How do you relate to them?
13. What do you think of women studying engineering?
14. Where do you see yourself in 6 to 10 years, time?

### **Engineering Lecturer (Men)**

1. Estimate age
2. What course do you lecture?
3. How long have you been lecturing?
4. I believe you are aware that engineering has been stereotyped as a male course. What do you think about that?
5. Ever since you started lecturing, what has been the trend of women in engineering- more women, a few, decreasing?
6. Do you have women in your class?
7. What is your perception about women studying engineering – generally, behaviours?
8. How do you relate to them – (special treatment) as compared to their male counterparts?
9. What of the male engineering students, how do you relate to them?
10. Generally, how do the women perform academically as compared to their male counterparts- poorly, averagely, very well?
11. Do you believe their gender influences their academic performance?
12. Are there any rules/policies or measures to encourage women to take up engineering courses?
13. Would you encourage women to take up engineering courses?

### **Engineering Lecturer (Woman)**

1. Estimate age
2. What course do you lecture?
3. How long have you been lecturing?



4. I believe you are aware that engineering has been stereotyped as a male course. What is it like to be a female lecturer in such a male dominated course?
5. Why did you pursue engineering?
6. Ever since you started lecturing, what has been the trend of women in engineering- more women, a few, decreasing?
7. Do you have women in your class?
8. What do you think of women who study engineering?
9. How do you relate to them – (special treatment, indifferently)as compared to their male counterparts?
10. What of the male engineering students, how do you relate to them?
11. Generally, how do the women perform academically as compared to their male counterparts- poorly, averagely, very well?
12. Do you believe their gender influences their academic performance?
13. Are there any rules/policies or measures to encourage women to take up engineering courses?
14. Would you encourage women to take up engineering courses?

### **Professional Engineers (Men & Women)**

1. Age:
2. Sex:
3. Occupation/Specialization:
4. Duration of occupation/specialization:
5. Marital status, children?
6. What motivated you to take up this job?
7. I believe you are aware that engineering is deemed a man's job. What is your take on that?
8. Which university did you attend?
9. What were your experiences back there- challenges, relationship with lecturers?
10. Did you have female colleagues back at school? What was your relationship with them?
11. How often do you come across professional women engineers? What do you think is responsible for this frequency?
12. Would you encourage more women to take up engineering?

