EFFECT OF MULTIPLE ROLES ON PERSISTENCE OF FEMALE STUDENTS IN DISTANCE EDUCATION PROGRAMMES IN SELECTED PUBLIC UNIVERSITIES IN GHANA

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E83F/CTY/26382/2013

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY (EDUCATIONAL ADMINISTRATION) IN THE SCHOOL OF EDUCATION OF KENYATTA UNIVERSITY

MARCH, 2018
DECLARATION

I confirm that this research thesis is my original work and has not been presented in any other university/institution for certification. The thesis has been complemented by referenced works duly acknowledged. Where text, data, graphics, pictures or tables have been borrowed from other works - including the internet, the sources are specifically accredited through referencing in accordance with anti-plagiarism regulations.

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DEDICATION

To my father, James and my mother Faustina, to Grace Osei Obenewah and Akosua Afriyie Tandoh, and to all my teachers for the role they played in shaping my academic goals.
ACKNOWLEDGEMENTS

This journey has been successful with the help of others who shaped the twisting ends physically, psychologically and academically. To my supervisors and mentors, Dr. Florence Muthoni Itegi and Dr. Samson Ikiyana Kariuki, I say thank you very much for your immense academic guidance, comments and support from the beginning to the end of this study.

My sincere gratitude goes to the staff and management of the College of Distance Education, University of Cape Coast for the opportunity granted me to pursue this programme. Special mention goes to Mr. Albert K. Koomson, Professor Paul D. Ahiatrogah, Professor George K.T. Oduro and Professor Emmanuel K. Gyimah. I am equally grateful to my research assistants, study respondents and key informants for their time and for sharing their knowledge during the collection of data.

I most sincerely acknowledge the help and valuable inputs I enjoyed from Dr. Hellen K. Guantai and Dr. Mukirae Njihia who read this work at the proposal level through to the preparation of the final document. Your insightful comments helped to improve this work, may God richly bless you. To the Chairman and all the staff of the Department of Educational Management, Policy and Curriculum Studies I say, “Asanteni sana”.

I would like to show special appreciation to my husband Francis and to Emma, Naana, James and all my family members for their encouragement. To my friends, Dr. Christopher Yaw Kwaah, Dr. Samuel Yaw Amofo, Dr. Benjamin Bizimana, Mr. Richard Asumadu and Mrs. Sandra Mensah Parker, I say God bless you for the assistance offered to me. To my classmates Joseph Rwothumio and Alma Rubia Mwanaszumbah, I say let us keep the flames burning.
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# ABBREVIATIONS AND ACRONYMS

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<thead>
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAUW</td>
<td>American Association of University Women</td>
</tr>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
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<tr>
<td>CBO</td>
<td>Community Business Organisations</td>
</tr>
<tr>
<td>CoDE</td>
<td>College of Distance Education</td>
</tr>
<tr>
<td>DLC</td>
<td>Distance Learning Centre</td>
</tr>
<tr>
<td>DLI</td>
<td>Distance Learning Institute</td>
</tr>
<tr>
<td>ESP</td>
<td>Education Strategic Plans</td>
</tr>
<tr>
<td>IEDE</td>
<td>Institute of Extension and Distance Learning</td>
</tr>
<tr>
<td>KNUST</td>
<td>Kwame Nkrumah University of Science and Technology</td>
</tr>
<tr>
<td>MBA</td>
<td>Masters in Business Administration</td>
</tr>
<tr>
<td>NCES</td>
<td>National Centre for Educational Statistics</td>
</tr>
<tr>
<td>NCTE</td>
<td>National Council on Tertiary Education</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
</tr>
<tr>
<td>UCC</td>
<td>University of Cape Coast</td>
</tr>
<tr>
<td>UEW</td>
<td>University of Education, Winneba</td>
</tr>
<tr>
<td>UG</td>
<td>University of Ghana</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organisation</td>
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ABSTRACT

Distance education has become more acceptable among many female students globally due to its convenience, flexibility and technological transformation in the teaching and learning modalities. In spite of the favourable learning modalities that seem to characterise distance education programmes, most learners including female students often possess multiple personal and professional life roles such as being a caretaker, parent and employee. These roles usually impact positively or negatively on their successful persistence. This study sought to find out the effect of multiple roles on persistence of female students in distance education programmes at selected public universities in Ghana. The objectives of the study were to: determine the extent to which family responsibilities affect the persistence of female students in distance education programmes; examine how financial responsibilities of female students affect their persistence in distance education programmes; establish the extent to which social responsibilities affect the persistence of female students in distance education programmes and establish the effect of work demands on the persistence of female students in distance education programmes at University of Cape Coast and University of Education, Winneba in Ghana. The study was anchored on the feminist standpoint theory. The embedded mixed methods approach which employed correlational and phenomenological research designs was used for collection and analysis of data. The total target population was 7870 made up of 7,849 second year female students pursuing undergraduate programmes in Education and 21 study centre coordinators. The study centres and participants for the interviews were purposively selected while stratified random sampling was used for sampling female students. A sample size of 447 respondents made of 441 female students and 6 study centre coordinators was used for the study. Instruments for data collection were female student questionnaire and female student and study centre coordinator interview guides. Quantitative data were analysed using frequencies, percentages, means, standard deviation and regression analysis. Results were presented using tables and graphs. Qualitative data were reported in narrative forms based on emerging patterns and themes to support the quantitative results. Using a simple linear regression, the study found that performing family responsibilities positively increased the persistence of female students (p=.155<.001). It was found that financial responsibilities positively increased persistence among the respondents (p=.220<.001). However, the study revealed that respondents’ participation in social responsibilities had no effect on their persistence (p=.003>.001). The study established that work demands positively increased (p=.313<.001) the persistence of respondents. These results meant that except social responsibilities, all other roles made positive and significant contributions in predicting persistence of female students. In addition, the results from the stepwise multiple regression revealed that, work demands made the largest unique significant contribution (p=.313<.05) in the prediction of persistence of female students. It also had a shared significant contribution with financial responsibilities (p=.348<.05). It was recommended that as administrators of distance education institutions formulate policies that focus on females students who enrol with multiplicity of roles such as the introduction of reduced course units for a semester in order to decrease the effect of multiple roles on persistence. Also, female students must be provided with information on strategies that would help them to manage these roles effectively.
CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

This study sought to investigate the effect of multiple roles of female students on their tendency to persist in distance education programmes. This chapter looks at the background to the study, statement of the problem, purpose and objectives of the study, null hypotheses, significance, limitations, delimitations and assumptions of the study. The chapter concludes with the theoretical and conceptual frameworks and the operational definitions of terms.

1.2 Background to the Study

Education is considered as one of the important factors that helps women to become useful individuals of the society (Demiray, 2014). Studies have continually found that adults in general and women in particular, enrol in institutions of higher learning to improve job skills, for personal enrichment and to fulfil a desire for a lifelong education (Bhalotra & Rawlings, 2011; UNESCO, 2015). Higher education is seen as one of the most effective ways that shapes economic returns and also determine the quality of life especially among women (Gentry, 2014). In addition, higher education gives women the opportunity to make informed decisions and enhances their freedom to take initiatives on matters concerning their personal and professional lives (Demiray, 2014). Since a nation’s development depends on both men and women, higher education is essential to ensure that individuals are developed to give off their best to support national building (Ray, 2014).
Despite the foregoing benefits, Kwapong (2010) and Adu-Yeboah (2011) argued that societal perception of roles of women and men usually affect their participation in formal education. Commenting on gender role theory, Reevy as cited in Jones (2010) opined that men and women experience different socialization practices in given cultures and therefore face different demands and behavioural expectations. Bunyi (2008) and Fragoso et al. (2013) also indicated that gender play an important role in deciding who should participate in higher education in most societies. Sometimes in a patriarchal society like Ghana, female education is further influenced either positively or negatively by their spouses and male family members as they are traditionally empowered to have legitimate authority over the academic and career decisions of these females (Suen, 2010).

Hetzel (2012) commented that the gendered nature of women’s work makes them fulfil more roles and responsibilities than their male counterparts. Women are sometimes required to carry the main responsibilities for housework and raising children in addition to schooling which are likely to affect their ability to successfully achieve their educational goals. In such situations, the most convenient alternative that remains for some females to improve their educational status is through a distance education programme (Vaskovics, 2015; Demiray, 2014; Kwapong, 2010; Malik, 2010). However, most of these female students often possess multiple personal and professional life roles such as being a spouse/partner, parent, domestic worker, caregiver, employee and community leader/member which usually impact positively or negatively on their successful persistence through the various levels of education (Malinovski, Vasileva-Stojanovska, Jovevski, Vasileva & Trajkovik, 2015; Cohen & Greenberg, 2011; Ross-Gordon, 2011).
Traditionally, the socialization of the female in both western and African countries still demands that she takes care of the home and her family (Igarashi & Kumo 2016; Filipponi-Berardinelli, 2013; Kwapong, 2010). In support of the above assertion, other researchers added that some factors that affect persistence as far as family responsibilities are concerned include being married, being a parent and caring for children, siblings and other relations (Adu-Yeboah, 2011; Clothey, 2016; Filipponi-Berardinelli, 2013). This implies that playing marital roles, in addition to being student in distance education, may burden female students and this is likely to affect their persistence as compared to their male counterparts. Since studies by Adu-Yeboah (2011) and Foster and Offei-Ansah (2012) used female students on regular programmes in Ghana, the current study sought to determine the effect of family responsibilities on persistence of female students in distance education programmes as they engaged in roles like childcare, marital obligation and domestic activities.

In the view of Nordenmark (2004), one’s control over financial responsibilities can create a feeling of contentment as they provide an individual with a greater meaning to life and more control over important life situations. In concurring with this assertion, findings from a study conducted by Bynum (2016) showed a positive relationship between financial status and persistence among female college students in two public universities in Texas. In addition, Carney-Crompton and Tan as cited in Fairchild (2003, p.12) added that some variables that determine the persistence rate of both male and female students include “household income, the number of dependents, and the financial aid received by the student”. The current study looked at financial responsibilities in terms of number of dependents, ability to pay fees and accessibility to financial support in an attempt to examine how female students in distance
education programmes in Ghana felt the blunt if decisions have to be made in relation to persistence.

Again, as members of the larger community, the female students may be required to give back to the society in several ways. This study looked at social roles from the perspective of the roles the female students played in the form of religious and communal activities. Studies have shown that performing social roles have other benefits as increased support from members and positive self-esteem (Ruderman, Ohlott, Panzer & King, 2002; Fairchild, 2000). However, the question is, are female students in distance education programmes able to perform their communal and religious roles so as to derive these benefits? This is what this study sought to unravel as studies are yet to be conducted on social roles using female students in distance education programmes in Ghana.

A research study by Pascarella and Terenzini (2005) in Illinois showed that a significant majority of students work while attending college, especially those who may be re-entering universities for academic and professional gains. The females used in the study conducted by Filipponi-Berardinelli (2013) in Canada also reported that work demands were a potential source of role conflict as they were expected to meet deadlines from both employers and college tutors. The female students in distance education programmes may have similar difficulties which have not been given much attention by researchers presently in Ghana. This study therefore focused on the effect of work demands on persistence of female students in terms of the type of work they engaged in, number of hours spent at workplace and some reasons why they have decided to combine work with studies through a distance education programme.
Sauve (1993) and Gokool-Ramdoo (2009) saw student persistence as an important element in distance education as it forms the basis of teaching and learning activities. This assertion implies that effective teaching and learning in distance education institutions can occur only when persistence among students is ensured. In support, the National Student Clearinghouse (2014) defined student persistence as continued enrolment of a first or second year student at any higher educational institution. This definition implied that persistence is more of student-centred rather than institution-centred term.

In relation to the above, Habley, Bloom and Robbins (2012) added that persistence can be described as when a student “continues to enrol at the institution after matriculation” (p.4). In other words, it is all the efforts undertaken by an individual student to remain enrolled in an institution until a degree is attained (Hagedorn as cited in Sansone, 2017). Persistence therefore, concentrates on the student and all their efforts and activities taken to achieve an aim like attaining a degree (Hagedorn as cited in Sansone, 2017). Glenn (2017) concluded by indicating that persistence can therefore be described as students’ measure while retention is seen as a measure of institutions. Students’ persistence for this study focused on actions taken by female students to continue enrolment on a distance education programme which is quite distinct from student retention which may indicate institutional actions to ensure continued student enrolment (Cunningham, 2010). The study looked at the female students’ continued desire to remain enrolled in a distance education programme with indicators such as confidence in re-enrolling, confidence in achieving educational goals, active participation in tutorials and group activities, support by family and friends as a measure of persistence.
Ghana’s educational structure and curriculum are designed to ensure that both girls and boys have equal prospects at all levels. Currently, Ghana’s structure of education includes two years of kindergarten, six years of primary and three years of junior high school. After completion of junior high schools, students have the option to go to a senior secondary school, technical institute or vocational institute for three years (Little, 2010; Akyeampong, 2009). While universities and polytechnics run between one and four years for the award of certificates, diplomas and degrees, colleges of education and nursing training colleges run for three years for the award of diplomas. Depending on their mandate, some universities which offer distance education programmes run both diploma and degree programmes which can span for 3-5 years for diploma, 4-6 for degrees and 2-4 years for post-diploma courses.

The Government of Ghana has female education as a priority as emphasised in the quotation of an eminent Ghanaian scholar, Dr. James Emman Kwegyir Aggrey that “the surest way to put people down is to educate the men and neglect the women. If you educate a man, you educate an individual, but if you educate a woman, you educate a nation” (Sarwatay, 2014, p.1). Like most Sub-Saharan countries, Ghana’s education system has suffered gender imbalances and this situation is not different among distance education programmes which reported an enrolment ratio of 55:45 in favour of males (National Accreditation Board, 2015). The Government through the Ministry of Education has instituted several strategies to increase access to education among females. Among these policies are widening access strategies where females enter tertiary education at grades lower than their male counterparts and the distance education delivery modes through which students who are cowed down with other responsibilities can upgrade themselves academically and professionally. Distance
education is generally seen as a mode of study which provides flexible time management possibilities suited for women because of their roles as caretakers, wives and mothers. It also helps in creating an opportunity to overcome barriers to women participation in higher education in the developing countries (Kyutha, 2014; Vaskovics, 2015).

While gender parity is almost achieved at the primary and junior high school levels (at the rate of 0.96 and 0.92 respectively), transition and persistence of female students especially in secondary and tertiary institutions still remains a dilemma (Ministry of Gender, Children and Social Protection, 2014). A report from the Ministry of Gender, Children and Social Protection (2014) further reiterated that, females in Ghana still suffer from the ordeal of choosing between schooling and their traditional roles of caring for the family and engaging in domestic chores. The report concluded that this is more pronounced among females with low economic background and those living in the rural areas. In addition to the foregoing assertion, statistics from University of Cape Coast (UCC) and University of Education, Winneba (UEW) showed that for a period of over five years, close to a hundred female students who gain admission do not re-register or defer their programmes. Also the enrolment and completion rates for female students in distance education programmes at UCC and UEW were also lower than national enrolment rates of 55:45 as shown in Table 1.1.
Table 1.1: Enrolment and completion rates of diploma students of UCC and UEW

<table>
<thead>
<tr>
<th>Year of admission</th>
<th>No of Male students</th>
<th>%</th>
<th>No of Female students</th>
<th>%</th>
<th>Year of completion</th>
<th>No of Male students</th>
<th>%</th>
<th>No of Female students</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>3253</td>
<td>56</td>
<td>2526</td>
<td>44</td>
<td>2013</td>
<td>1026</td>
<td>64</td>
<td>565</td>
<td>36</td>
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<tr>
<td>2011</td>
<td>4861</td>
<td>59</td>
<td>3424</td>
<td>41</td>
<td>2014</td>
<td>1646</td>
<td>64</td>
<td>923</td>
<td>36</td>
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<tr>
<td>2012</td>
<td>4549</td>
<td>57</td>
<td>3433</td>
<td>43</td>
<td>2015</td>
<td>2967</td>
<td>60</td>
<td>1988</td>
<td>40</td>
</tr>
<tr>
<td>2013</td>
<td>3321</td>
<td>53</td>
<td>2808</td>
<td>47</td>
<td>2017</td>
<td>1770</td>
<td>53</td>
<td>1548</td>
<td>47</td>
</tr>
</tbody>
</table>

Source: Registrars’ Offices, UCC and UEW

It can be seen from the Table 1.1 that though there was a steady increment, both enrolment and graduation rates of female students have consistently been lower as compared with their male counterparts. This called for a further investigation into this phenomenon with the aim of finding out if the persistence of female students is affected as they juggle with multifaceted roles. While policies on increasing numbers are still important, gender responsive structures are also needed to help female students persist in higher education in contemporary African environment (Ajandi, 2011).

As part of its Education Strategic Plan (ESP) for 2003-2015, the Government of Ghana mandated four public universities in Ghana to provide distance education as a complement to the conventional face-to-face education (Ossei-Anto, 2008). Currently, University of Ghana (UG), University of Cape Coast (UCC), University of Education, Winneba (UEW) and Kwame Nkrumah University of Science and Technology (KNUST) run distance education programmes through which a number of individuals and professionals upgrade themselves. UCC and UEW are mandated to run teacher education programmes among others. Though most of these universities are adopting
the blended mode of distance education delivery, students still need to visit their study centres for some services such as registration and collection of reading materials, access learning resources and take part in quizzes and end of semester examinations. These activities can be deemed as useful and important components of support services that can improve persistence especially for students who are vulnerable or juggle with multifaceted roles such as females (Simpson, 2016).

The session concluded by looking at some of the views of some researchers on balancing multiple roles and persistence among female students on both traditional and distance education programmes (Adu-Yeboah, 2011; Clothey, 2016; Filipponi-Berardinelli, 2013; Ross-Gordon, 2011). For instance, a survey conducted by Lowe and Gayle (2007) in Scotland revealed that female students who doubled as spouses, parents and employees showed a higher risk in persisting in college. Using a basic qualitative design, Filipponi-Berardinelli (2013) examined the experiences of five Canadian women as they continued to juggle with multiple roles as students on online distance education programme. The study revealed that the participants resorted to unconventional strategies like using employers’ time to be able to persist through their studies (Filipponi-Berardinelli, 2013).

In order to persist on their programmes successfully, Johnson's (2011) study in Tanzania found out that the female students had to build a set of competencies to enable them focus on their studies and also play societal duties required of them in their homes. In a survey conducted in five public universities in Ghana to identify the family roles female students played and the strategies they used to manage the roles while in school, Foster and Offei-Ansah (2012) found that the respondents performed
several family roles such as running errands, cooking for the family, satisfying marital obligations, helping with children’s school needs and giving financial support among others which affected their studies. It can be observed from the literature that female students in higher education have specific needs that needed special attention from administrators as a way of improving their level of persistence through their education. It was therefore perceived that the results of this study would help bridge this gap.

1.3 Statement of the Problem
Good educational opportunities at the higher level serve as the impetus for improvement of lives of individuals (both men and women) in their political, social, educational and economic endeavours. In addition, higher education has a singular benefit of providing females with the opportunity of making informed choices in relation to their personal and professional lives as enshrined in most global educational goals. Studies from various parts of the world including Africa and Ghana in particular, have indicated that balancing job, family and school responsibilities had made distance education mode more acceptable among female students as a convenient and flexible way to help them achieve academic, personal and professional goals.

Though efforts have been made by the Government of Ghana to increase access to higher education through the enactment of the widening participation strategies and distance education policies, females are faced with competing roles such as being caretakers, parents, spouses, social workers and employees even with these interventions. These roles affect their participation in higher education as evidenced
by female enrolment and completion rates in distance education programmes at UCC and UEW which remained lower as compared with their male counterparts. This meant that if measures are not put in place, the full benefits of the efforts by government and individuals towards achieving the goals of female education through distance education would not be recognised. The aim of this study therefore, was to find out how multiple roles affected the persistence of female students in distance education programmes in these universities. This may help to stimulate the formulation of interventions that may enhance the persistence of female students in distance education programmes.

1.4 Purpose of the Study

The purpose of this study was to find out the effect of multiple roles on persistence of female students in distance education programmes at University of Cape Coast and University of Education, Winneba with the intention of raising awareness among administrators of distance education institutions towards the needs of female students.

1.5 Research Objectives

The four objectives that guided the study were to;

1. Determine the extent to which family responsibilities affect the persistence of female students in distance education programmes at UCC and UEW in Ghana.
2. Determine how financial responsibilities of female students affect their persistence in distance education programmes at UCC and UEW in Ghana.
3. Establish the extent to which social responsibilities affect the persistence of female students in distance education programmes at UCC and UEW in Ghana.
4. Establish the effect of work demand on the persistence of female students in distance education programmes at UCC and UEW in Ghana.
1.6 Null Hypotheses

From the objectives, five hypotheses were generated and tested.

**Ho₁:** Family responsibilities are not statistically significant predictors of persistence of female students in distance education programmes at UCC and UEW in Ghana.

**Ho₂:** Financial responsibilities are not statistically significant predictors of persistence of female students in distance education programmes at UCC and UEW in Ghana.

**Ho₃:** Social responsibilities do not make statistically significant contribution in predicting persistence of female students in distance education programmes at UCC and UEW in Ghana.

**Ho₄:** Work demands are not statistically significant predictors of persistence of female students in distance education programmes at UCC and UEW in Ghana.

**Ho₅:** Family responsibilities, financial responsibilities, social responsibilities and work demands are not statistically significant predictors of persistence of female students in distance education programmes at UCC and UEW in Ghana.

1.7 Significance of the Study

The findings of this study would be useful to policy makers concerned with the persistence of female students in institutions that provide distance education as this study may portray a vivid picture of how multiple roles affect their persistence. This information would provide a sound foundation to help administrators and support service providers to formulate policies that may create an enabling environment for the female students to persist in their course of study successfully.
Again, the findings from the study would help female students in distance education programmes to understand the factors that compete with their academic work. The knowledge would equip them with the needed skills and commitment levels to help them navigate successfully through these demanding but important roles. In addition, the findings would provide them with information that will guide the decisions they may want to make on persistence. This in effect might lead to increased completion rates and its associated benefits such as increased earning, workplace promotion, better health and social benefits among others.

Finally, since studies have indicated an increasing female students’ enrolment in higher education through distance education programmes across the world, it was important to investigate how their characteristics impacted on their persistence in order to help improve delivery at distance education institutions in general. The emerging themes that characterise female students’ experiences with distance education can be utilized by researchers and administrators as a way of reinforcing female students’ perspective as one of the major dimensions of the theoretical conceptualisation of distance education as well as adding on to the body of knowledge in distance education.

1.8 Limitation and Delimitation of the Study

1.8.1 Limitation

The following were seen as some of the limitations to the current study. Although results can be generalized to the universities where the data were collected, additional evidence would be required to allow for the generalization of findings to all other university settings as a way of controlling for threats to external validity. Again, study
centres in which the study were conducted were spread across the country so this affected the researcher’s time and finances when it became necessary to visit these sites more than once during the fieldwork. The researcher made the necessary efforts to reach all the respondents by soliciting for extra funds and through the use of research assistants. Also, the results of this study reflected the responses of female students enrolled in distance education with a face-to-face option and their responses may differ from students in other types of programmes such as online or campus based. In addition, multiple roles as perceived by participants in this research setting might be different in other settings, therefore generalization must be done with circumspection. Nevertheless, distance education institutions with similar characteristics as the ones used in this study would find the results of this study useful.

1.8.2 Delimitation

This research was designed to study the multiple roles which were likely to affect the persistence of female students in distance education enrolled at a public university. The study was delimited to student persistence which was considered to be a student measure rather than an institutional measure of student success on academic programmes. Though there may be other variables that affect persistence of female students in distance education, the study focused on issues such as family responsibilities, social responsibilities, financial responsibilities and work demand. These variables were considered to be external and beyond the control of the institutions which enrolled these female students.
Other variables such as institutional orientation and face-to-face sessions which fell within the mandate of the institutions were not considered in this study though they may influence female students’ persistence. Again, the study sampled female students from selected study centres and not from all centres across the country. Also, the study used female students in their second year in various programmes in distance education, therefore the views of other female and male students on other levels were not included in this study. Finally, the study was delimitated to female students in only two out of the four public universities mandated to run distance education programmes in Ghana.

1.9 Assumptions of the Study

The study was based on the assumptions that:

1. All female students sampled for the study were objective in responding to the questions on multiple roles they encountered and how they affected their decisions to stay in the college.

2. The persistence of female students in distance education was more affected by multiple roles more than that of the male students.

3. That multiple roles had a direct effect on female students’ persistence.

4. Female students in their second year may be the most informed group in relation to multiple roles and persistence.
1.10 Theoretical Framework and Conceptual Framework

1.10.1 Theoretical Framework

This study was guided by the feminist standpoint theory (Hartsock, 2004; Smith, 2005; van der Tuin, 2016). The study focused on proponents such as Hartsock (2004), Smith (2005) and van der Tuin (2016). Drawing some inferences from Marxist thought, the proponents of the feminist standpoint theory hold that women have unique social development and experiences that are different from men. Hartsock (2004) further claimed that the right interaction with other people and with the natural world can help correct some of the wrong assumptions created by the nature-culture divide. These assumptions quite often lead some females into making incorrect choices by seeing the situation they found themselves as “purely natural” or “purely social” in nature (Hartsock, 2004, p. 36). In other words, most female may probably accept some circumstances as a natural or social occurrence and decide not to do anything to change the existing status quo.

The theory further postulates that the viewpoints of females are quite different from their male counterparts due to the fact that the lived experiences of females are distinctly different from males. These are further cemented by the division in sexuality in various societal settings which define the basic activities of the female as providers to sustenance and as mothers (Hartsock, 2004). These include mothering, homemaking, nursing and social work among others. These roles make females interpret the material world from a unique standpoint (Hartsock, 2004). It is based on the assertion that Hartsock argued the standpoint theory is premised on group and shared experiences of females because it is believed that the groups have some level of permanence over personal and individual experiences.
This is true because distance education institutions are going to have students with females being considered as a unique group on which inferences could be made. As these students complete and leave the university, this group identity is usually lost. This does not mean the individual experiences are not accounted for but rather using the group as point of focus creates opportunity for individual views to be incorporated into the larger group (Hartsock 2004). Hartsock (2004) further asserted that the interactions and connections found within the group create better opportunities for the discovery of new knowledge leading to formulation of informed policy focused on developing interventions for these groups. Feminist standpoint theory scholars therefore, are of the view that researchers need to explore ideas and experiences from a viewpoint of the female by making her the central focus of their studies (Hartsock, 2004).

In support of this assertion, Smith (2005) stressed that it is in the right direction if women are consulted to give the first-hand information on what the actual women’ experiences are. Personal accounts of women who have been a part of an educational system are very important because they provide credible information on the females participating in specific institutions as the ones used in the current study. Therefore, employing a feminist standpoint becomes important not only as a theory but as a methodology.

Advancing the discussion, van der Tuin (2016) argues that at the heart of feminist standpoint theory is the focus on knowledge production through women’s experiences. Feminist standpoint theory can be seen as one of the theories that provide an epistemology to studies which use women as subjects because they focus on the way of thinking of these females. Again, van der Tuin (2016) reiterates that the theory
places emphasis on the lived experiences of the females as they are considered as
good sites for generating knowledge. The author therefore sees feminist standpoint
theory as a connection between the day-to-day activities of females and generation of
useful knowledge. In the view of van der Tuin (2016), the theory perfectly fits in
studies that deal with human and social sciences since these areas concentrate on
people or activities of people more especially those of marginalized groups. This
means that most researchers using the feminist standpoint theory usually result in the
production of socially relevant research (van der Tuin, 2016).

This theory formed the basis of the current study because most of the female students
in the distance education programmes offered by the universities under study fitted
into the above description. These external factors which represented multiple roles as
used in this study are beyond the control of the institutions but can be a bother to the
female students. The feminist standpoint theory allowed for views to be sought from
the female students, making them the central focus of the current study. The multiple
roles which affect the persistence of these female students as a group also have a
social implication because these female students are part of the larger community and
whatever affects them positively or negatively may have a ripple effect on their
families and communities.

The aim of this study, therefore, was to expand the research on persistence of female
students by soliciting for their perspectives as they juggled with studies, work and
family responsibilities, as students in distance education programmes at UCC and
UEW. Through the guiding framework of the feminist standpoint theory, this study
was conducted using the out-of-school experiences of the female participants with
specific attention to developing considerable information on female students as a way
of informing policy formulation of administrators and managers of distance education
institutions in general.
1.10.2 Conceptual Framework

The conceptual framework showing the effect of multiple roles on persistence of female students in distance education programmes is as shown in Figure 1.1.

Figure 1.1: The conceptual framework of multiple roles and female students’ persistence

Source: The Researcher, 2017

It can be seen from the conceptual framework that the independent variable which was multiple roles, consisted of family responsibilities, financial responsibilities, social responsibilities and work demands of female students in the distance education programmes. The dependent variable, persistence, was measured by the extent to
which a female student depicted characteristics to persist in a distance education programme through activities such as showing confidence in re-enrolling, confidence in achieving educational goal, actively participating in tutorial sessions and in group activities and the support received from family, employers and friends.

Most female students are confronted with family and social responsibilities which may include marital duties, caregiving and domestic duties such as cooking, washing, cleaning and shopping in addition to social roles such as religious and community activities. As a student in distance education, the female student needs to work hard to be able to manage these responsibilities in order to persist successfully. Her inability to manage these roles efficiently might create problems in her home or within her society and affect the decisions she makes to persist in her course of study.

Having a good economic background is a likely contributory factor toward persistence for all students in general and the female student in particular. This is imperative because it allows for one to be in a position to afford the essentials of life and provide for dependents as well if any. Certain priorities like caring for dependents and paying fees can affect the female student adversely if she does not have access to financial sources like salaries, family support, loans or scholarship schemes to enable her to persist smoothly in a higher education.

Again, combining work and studies can have both positive and negative consequences on students in a higher institution. As depicted in the framework, work demands of the female students may include type of work they engage in, the number of days spent at working place and reasons why it is necessary to combine work with studies.
The work related demands of the female student have direct bearing on the amount of time they can devote to their studies which in effect can affect their persistence in a course of study.

The multiple roles as described in the conceptual framework affect all the female students in almost the same way as they share similar characteristics. However, the intensity of the effect of multiple roles on the persistence of female students in distance education programmes in Ghana can only be ascertained when the female students are made to share their unique experiences on these variables of interest. Based on such information, recommendations can be made towards formulation of policy focusing on developing interventions for persistence of female students.

Moreover, as shown in Figure 1.1 there is an indication of other intervening variables which were not the focus of this study. These included institutional orientation and face-to-face sessions. These were mentioned so that the necessary control measures were put in place to minimize the effects they might have on this study. It was also believed that the ability of female students in the distance education programmes to manage these multiple roles was likely to affect their persistence from one level to another and eventually towards a successful completion of their studies.
1.11 Operational Definition of Terms

**Distance education:** This is a way of learning in the selected public universities in Ghana where the students engage with learning materials at home and come for face-to-face contact with an instructor every two weeks at a designated study centre.

**Financial responsibilities:** Refers to female students’ financial roles as measured by the dependants they support, ability to pay tuition fees and access to financial support as students in distance education programmes.

**Effect:** Refers to the extent to which variables vary in a systematic way and was computed using correlation co-efficient, coefficient of determination and beta weights of regression.

**Family responsibilities:** Refers to domestic activities, family care and marital roles the female student performs.

**Graduation:** Refers to effort made by female student to re-enrol semester by semester till completion of programme in distance education.

**Persistence:** A student measure which refers to the extent to which female student depicts characteristics such as showing confidence in re-registering, confidence in achieving educational goal, actively participating in tutorial sessions and in group activities and the dependence on any form of help or support from family and friends.

**Social responsibilities:** Refers to the religious and communal duties female students engage in as members of the larger society. These include participation in naming, marriage and funeral ceremonies, traditional festivals, religious and political activities and leadership positions.
**Work demands:** Refers to the intensity of work (number of days in week for working), the specific type or nature of the job (part-time or full-time) and reasons for working while in school such as to support oneself, for job security and for promotion at workplace.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter presents a review of literature based on the themes that emerged from the objectives that guided the study. The review included empirical literature and theories for the study based on sources from dissertations, journals, abstracts and internet materials. Areas that are highlighted in the review include the concept of distance education, persistence theories, family responsibilities, financial responsibilities, social responsibilities and work demands as affecting persistence of female students among others. The chapter also presents a summary of reviewed literature by objectives and highlights the gaps identified.

2.2 Concept of Distance Education

In the mid-19th century distance education was introduced in Europe and the United States by providing formal education for people who wanted to learn but could not access traditional education (Svedberg, 2010). In 1969, Britain’s Open University in the United Kingdom developed a modern form of distance education using a range of learning and teaching supported media such as the use of videotapes, audiotapes and the internet. In addition, there was an introduction of integrated student support systems to help distance education students complete successfully (Simpson, 2016).

In Ghana, distance education used to be a correspondence education used by a number of workers and professionals to upgrade themselves (Ossei-Anto, 2008). The establishment of distance education in institutions of higher learning was initiated in 1994, when the Government of Ghana mandated all the four public universities at that
time to provide distance education to compliment the conventional face-to-face education. This new development was due to the fact that close to half of the qualified applicants could not gain admission into the existing universities as a result of limited facilities (Ossei-Anto, 2008).

In an attempt to define distance education, Freeman (2010) indicated that distance education is an educational situation where the instructor and students are separated by time and settings or both. Distance education can therefore be described as a form of education that focused on the use of print, technology and instructional systems designed effectively to provide education to students who were not physically at designated sites. This form of education seemed to create some convenience for a category of students who found it difficult to access higher education through the conventional education (Simpson, 2016).

The National Centre for Education Statistics (NCES) in the United States projected an increase in higher education enrolments from 2007-2018 especially among non-traditional students (Hussar & Bailey, 2009). These learners are finding ways to continue their education through various forms of learning which provide them with information and knowledge in specific areas of study (Malinovski et al., 2015). To sustain this growth, colleges and universities introduced distance education programmes (Moller, Foshay & Huett, 2008) which have become a more popular choice for some college students. Current data from NCES show a drastic increase as over 21 million students, especially non-traditional students, are now accessing higher education through distance education courses in university settings (Davis, 2016; Kapur & Crowley, 2008).
In Ghana, the rapid growth of students seeking admission to universities led the National Council on Tertiary Education (NCTE) to formulate educational policies and reforms that placed much emphasis on the promotion of distance education programmes (Osei & Mensah, 2014). Some advantages of distance education include its potential to widen accessibility to education at all levels and giving opportunities for students to study while working and maintaining their homes (Osei & Mensah, 2014; Ossei-Anto, 2008). Currently, University of Education, Winneba (UEW), University of Cape Coast (UCC), University of Ghana (UG) and Kwame Nkrumah University of Science and Technology, Kumasi (KNUST) are the public universities providing open and distance education programmes in Ghana.

Non-traditional students, including women, have different needs as a result of their special background or experiences, as well as their overlapping identities and varied social duties (Stephenson, 2015). For instance, a study conducted by Qureshi as cited in Kwapong (2010) revealed that a lot of women preferred the distance education mode as compared to the traditional mode with a percentage of 30.4% as against 12.6%. This finding is in tandem with the fact that most of the female students on distance education in Ghana are within the marital age as asserted by Sweetman (2003) and may have married and taking care of a household. In such a situation, studying through the distance education mode seems to be the best option. It was in line with this that the current study focused on investigating if marital roles as a variable can affect the persistence of female students in distance education in the Ghanaian context.
2.3 Persistence Theories and Studies among College Students

Several authors and researchers have over the decades developed theoretical models for student attrition and persistence. Among the first of such researchers was Spady who developed a theoretical model on theory of student departure in 1970 based on Durkheim’s theory of suicide (Cohen, 2012). The Durkheim’s theory of suicide proposed that the more individuals were integrated into the society, the less the likelihood that they would harbour suicidal thoughts (Cohen, 2012). Spady therefore related students’ decisions to drop out of college to a longitudinal process which resulted from a combination of factors. These factors included background characteristics such as home background, academic potential and socio-economic status. Spady however, indicated that, a good degree of social integration enjoyed by students within the institution helps in preventing attrition (Alhassan, 2012).

Spady tested the model using multiple regression analysis over a four-year period. The researcher found that the dominant predictor of student persistence for both male and female students was academic performance. However, there were other significant differences between male and female students. The most significant predictor of student persistence for male students was academic performance, followed by institutional commitments while female students reported institutional commitment and academic performance respectively (Al-Dossary, 2008).

Tinto’s Student Integration Theory in higher education was the second model (Alhassan, 2012). Vincent Tinto (1975) described the process of university student retention or persistence as composing of different stages such as separation, transition and incorporation as theorized by Van Gennep’s theory about rites of passage. Tinto
reiterated students may fail to persist if these stages were incomplete. Tinto believed that before a student entered a college, that individual already possessed some personal traits formed from past forms of association. Tinto categorized these pre-entry traits into three groups: family background, skills and abilities and initial schooling. Tinto (1975) further found that six variables that were crucial indicators of persistence: academic integration, social integration, goal commitment, institutional commitment, intent to persist and academic achievement. Though Tinto’ theory was widely used, some researchers had indicated that it had some limitations as it failed to consider the role of finances in students’ persistence (Bean & Metzner, 1985).

Another model worth mentioning is Pascarella’s (1980) Attrition Theory which was developed based on ideas from Spady (1970) and Tinto (1975). The focus of this theory was on social interactions taking place among students at the college level. Testing the model, Pascarella (1980) reported that freshman persistence/withdrawal decisions were considerably related to the quantity and quality of student-faculty informal or non-classroom contact. Pascarella found that such informal contact that occurs between student-faculty was seen to be more important for students who initially exhibited low commitment toward achieving the goal of graduating from college successfully. In addition, Pascarella opined that there was an influence between institutional characteristics and student characteristics and three other independent variables which included: a) the level of informal contact with faculty; b) other college experiences; and c) educational outcomes (Alhassan, 2012). These independent variables, according to Pascarella, influenced each other so much so that interference in one area could spill over to the others resulting in a reciprocal effect.
Pascarella (1980) however, observed that all the other variables influence persistence/withdrawal decision indirectly by impacting on educational outcomes while educational outcomes had direct effect on students’ persistence/withdrawal decisions. Pascarella’s theory however, suffered some criticisms because apart from a number of methodological and conceptual problems, it was developed using a single college (Al-Dossary, 2008; Alhassan, 2012).

The next and final model to be considered in this study was Bean and Metzner’s (1985) Student Attrition Theory which was based on organisational turnover theory and attitude-behaviour interactions theory (Al-Dossary, 2008). Bean and Metzner (1985) claimed that the student persistence/retention theories developed by Spady, Tinto and Pascarella depended too much on socialization of students and did not take into consideration the external factors which were likely to affect non-traditional students. These non-traditional students had fewer chances of experiencing social integration opportunities provided by institutions (Bean & Metzner, 1985). Bean and Metzner (1985) developed this theory for non-traditional students and stressed that student decisions to leave colleges were related to peoples’ decisions to leave their places of work. Bean and Metzner (1985) found that environmental variables were more important for non-traditional students than academic variables.

According to Bean and Metzner (1985), there were four sets of variables that influenced student persistence. They described the first set as academic variables which were measured by a student’s grade point average. The second variable was the intention of the student to leave. This was projected to be influenced by psychological outcomes such as institutional quality, satisfaction, goal commitment and stress, and
academic variables. The third set was background and defining variables which was made up of one’s high school performance and educational goals. The final set of variables were environmental variables such as finances, hours of employment, family responsibilities and opportunity to transfer, which were all external to institutions but have a direct effect on dropout decisions. They reiterated that when academic variables of non-traditional students were good but they faced poor environmental variables, they were likely to leave school (Bean & Metzner, 1985). On the other hand, students were most likely to remain enrolled when environmental variables were excellent and academic variables were poor because low scores on the academic variables were usually compensated for by good environmental support (Bean & Metzner, 1985).

In addition to the theories, Davidson, Berg and Milligan (2009) had reiterated that a measure of persistence could be done individually both at institutional level and student level. The authors argued that reasons that affect persistence of students may be different for institutions, individual students and between genders. Just as the independent variables used this study, other researchers had also studied the relationship between many other variables and persistence. For instance, a study by Davidson, Beck, and Silver used “six academic orientations that students develop based on their experiences in courses” and correlated with them persistence on a 5-point Likert scale (as cited in Davidson, Berg & Milligan, 2009, p.377). Davidson et al. (2009) also used “academic integration, social integration, support services satisfaction, degree commitment, commitment to institution and academic conscientiousness” as the indicators of persistence in a study conducted among institutions in the United States (p.381). One can notice that the foregoing studies
looked at institutional based variables while the current study deviated by looking at how the interplay of multiple roles affected the persistence of female students in distance education programmes.

Garza, Bain and Kaczynski (2014) conducted a study among Hispanic students who had the history of experiencing greater challenges to succeed in college in South Texas. The researchers adopted mixed-methods approach to investigate the relationship between resiliency, self-efficacy and persistence of these college students. The purpose of the study was to help college, career, school and community counsellors and administrators gain an insight into how to work with prospective Hispanic students as counsellors were likely to address and support the needs of these students. The study found that there was the need for all levels of campus communities to show commitment towards working on strategies to increase persistence among Hispanic college students to help improve their graduation rates. Garza et al. (2014) recommended that such strategies would be beneficial to the university administration and counselling centres as they work with the Hispanic student population.

Ojokheta’s (2010) study in Nigeria used the Distance Learning Institute (DLI) of University of Lagos and Distance Learning Centre of University of Ibadan, the two most organised distance learning institutions. The purpose was to assess students’ persistence in distance education in Nigeria in relation to the low deployment of technology at the time of the study. The researcher examined the predictors that influenced persistence and success of students in distance education. The results from the Multiple Regression analysis indicated that the predictors that made contribution towards enhancing persistence and success of students were conduciveness of the
learning environment, tutors response pattern, learners’ perception of course materials and availability of student support services (Ojokheta, 2010). Other predictors such as institutional social interactions, learners’ home background and occupational status were found to be insignificant. Ojokheta (2010) therefore recommended that in planning of academic curriculum for distance education programmes, designers must be cautious of these predictors.

Employing a mixed-methods descriptive case study approach, Glenn (2017) explored the characteristics and experiences of first-generation college students of colour who participated in an institutional student engagement programme and its impact on persistence. The focus of the study was to assess the extent to which student engagement programmes assisted first-generation college students of colour in their academic and social integration to enable them persist to graduation. Glenn (2017) reported that pre-college and college experiences impacted on the academic and social integration of first-generation college students of colour. The study was also meant to generate awareness among administrators on the persistence and completion of first-generation college students of colour (Glenn, 2017).

Sansone (2017) also conducted a study in Texas to examine the relationship across time between financial aid and persistence, and whether the effect of the relationship was different for Latina/o students as compared to other racial/ethnic students. The study used Nora’s Student Institution/Engagement model and discrete-time hazard modeling to examine the longitudinal association of financial aid factors on degree attainment for first-time Latina/o students. The researcher found that financial aid was positively related to persistence of Latina/o students as compared to their White counterparts. Latina/o students receiving state grant aid had a higher likelihood of
graduating than their White peers. The findings also highlighted the role of external environmental factors on Latina/o student persistence that had been overlooked and needed to be given attention (Sansone 2017). In summary, most of the studies discussed above concentrated on how some institutional factors were impacting on persistence of the sample involved. Though some of the researchers in the studies discussed above used mixed methods approach, they focused on institutional related services as a remedy to improving persistence. The current study digressed by looking at the external and environmental variables that affected the persistence of female students in distance education programmes in Ghana.

2.4 Multiple Roles and their Effect on Education of Female Students

In the past, roles of females have been traditionally perceived by themselves, by others and by the society as related to the family and the home. However, over the past two decades, societal changes have drastically affected this perception changing the conditions of females (Kopp & Ruzicka, 1993). These changes have resulted in many females re-entering institutions of higher education so as to improve academically and professionally, to be able to keep abreast with the new societal demands. However, these females become students with multiplicity of roles and responsibilities such as being an employee, partner or spouse, parent, caregiver, friend, volunteer or a religious leader (Marsman, 2014; Ross-Gordon, 2011).

Using a qualitative case study, Müller (2008) found that multiple roles ranked first among the factors that hinder the successful persistence of females on online distance learning programmes in the United States. Another qualitative study conducted by Mudhovozi (2011) among six female undergraduate students in an online distance education programme in a higher education in South Africa, revealed varied degrees
of success of married undergraduate female students’ adaptation to multiple roles. Though the participants reported facing the challenge of balancing home and life at college, they also reported enjoying some benefits as well (Mudhovozi, 2011). These benefits included the support and respect they gained from their families as well as the knowledge which helped them to improve professionally at their workplaces.

In a related study, Sallee (2015) interviewed with 18 parents (12 women and 6 men) who were students offering master’s programmes in student affairs and were also employees of university and college campuses. Participants were selected from 10 universities in the United States. The study aimed at exploring the ways the student parents used to navigate through their academic, familial and professional responsibilities, and also considered the strategies the respondents used to meet the demands of these multiple roles (Sallee, 2015). The researcher found that though participants prioritized their roles as parents above all other roles, they valued their roles as students and made the necessary efforts to meet all expectations associated with this role.

Capps (2012) conducted a qualitative study to find out how personal and institutional factors influenced persistence using twenty-eight male and female students who were above 25 years, working full-time, doing part time coursework, had children and were financially independent at Salt Lake Community College in Utah. The study revealed the participants’ persistence was strongly dependent on personal drive and level of familial support. The female students in the current study may possess the characteristics as the sample used in Capps’s study so there was the need to query their perceptions on persistence in relation to multiple responsibilities as described in the above study within the Ghanaian context.
Lowe and Gayle (2007) also conducted a survey by in Scotland and found that female students who doubled as spouses, parents and employees showed a higher risk of not being able to persist in college. Using a basic qualitative design, Filipponi-Berardinelli (2013) examined the experiences of five Canadian women as they continued to juggle with multiple roles as students on an online distance education programme. The study revealed that the participants resorted to unconventional strategies like using employers’ time to be able to persist through their studies (Filipponi-Berardinelli, 2013).

Lasode and Awotedu (2014) studied 150 married undergraduate female students from two universities in Ogun State in Nigeria and reported that most of the participants experienced difficulty in balancing work, family responsibilities, financial commitments and school obligations (Lasode & Awotedu, 2014). To persist on their programmes successfully, Johnson's (2011) study in Tanzania found that the female students had to build a set of competencies to enable them to focus on their studies and also play societal duties required of them in their homes. In support, Adu-Yeboah (2011) used a qualitative research approach examined how mature undergraduate women in one public university in Ghana managed their conflicting roles to enable them to persist through higher education. The study found that the participants had specific needs that needed special attention from administrators as a way of increasing their level of retention through higher education (Adu-Yeboah, 2011). On the contrary, it was observed that currently there was no special desk that concentrated on the needs of female students in distance education in the respective universities under study. It was, therefore, perceived that the results of this study may help bridge this gap. Also the studies discussed in the foregoing paragraph used female students in the
conventional programmes while the current study focused on female students in the distance education programmes.

Another exploratory study by Hemmerich (2014) focused on understanding how female learners at a distance education college in the United States perceived their persistence and also sought their views on the role and expectations on career-related services provided by the college. The researcher also sought the views of the participants on ways the college environment can be improved to meet their needs. The study which interviewed eleven female students found that apart from experiences such as lack of communication between campus offices and misinformation from academic advising services, creating a balance between family, work and studies were some of the hindrances to their persistence (Hemmerich, 2014). Hemmerich further reported that the respondents stressed that the support they received from faculty, family, friends and classmates were vital to persistence through their studies. The study recommended the creation of affinity group, special orientation tailored towards the needs to the female student and strengthening academic advising (Hemmerich, 2014). Though Hemmerich’s study was conducted among females in a distance education programme, the current study was done in Ghana using two universities. Again, while most studies discussed above used qualitative study in exploring the views of the participants, this study would fill a gap by using both quantitative and qualitative designs as data collection and analysis tools.
2.5 Family Responsibilities and Persistence of Female Students

This section of the review took into consideration the views and studies of other researchers on female students’ family roles in relation to their ability to persist in higher education. The section specifically looked at caregiving, marital roles and domestic activities usually undertaken by women and female students in general across the globe.

Mrkic, Johnson and Michael (2010) have asserted that in both western and Sub-Saharan African nations including Ghana, traditional gender role demands make the maintenance and caring for family members the primary responsibility of women. In spite of the changes that have occurred in the participation of education in general, females continue to bear most of the responsibilities at home such as caring for children and other dependent household members, preparing meals and doing other housework (Mrkic, Johnson & Michael, 2010). The study by Abuya, Ngware, Mutisya and Nyariro (2016) in Kenya found that girls faced a myriad of obstacles as they try to combine school with household chores and looking after younger siblings. Their school attendance is usually affected as they end up spending more time on activities that are not related to their schoolwork (Abuya et al., 2016).

Traditionally, the roles of the female do not change but rather increase as they mature in age. The women in a qualitative study by McClusky (2017) in the United Arab Emirates confirmed that it was customary for women to be accountable for all the family’s needs. While men were away from home either fishing or working a field, the mother’s duties were made up a variety of tasks which included childcare, water collection, gathering and cooking food, taking care of the livestock, and making and mending clothing for the family (McClusky, 2017). This was a confirmation that
family responsibilities were quite similar across boundaries and this situation is very similar to the roles performed by females in Ghana (Foster & Offei Ansah, 2012). It was against this background the current study sought to investigate how these roles affected the persistence of female students in distance education.

In another instance, using three universities in South-western Nigeria, Eboiyehi, Fayomi and Eboiyehi (2016) conducted a study to look at the factors contributing to gender inequality in university management. It was found that majority of the senior management staff were males (70.8%) as compared to females (29.2%). Among the factors contributing to this under representation, participants reported being cowed down by domestic and family demands (Eboiyehi, Fayomi & Eboiyehi, 2016). The researchers recommended that university administrators should put in more efforts towards increasing persistence of female students in higher education as the acquisition of higher degrees among females will ensure better competition for employment. The studies discussed above confirm the fact that most females, girls and women alike, deal with one role or the other at whatever position they find themselves. It is in light of this that the current study sought to investigate how these roles interplay with the persistence of female students who were on a distance programme in Ghana with the view of providing information that may be utilised by administrators of distance education institutions.

Cultural assumptions about motherhood affect females in the home, at work and in college (Spilovoy, 2013). The societal perception as seen in many western and African cultures is supported by the fact that ideally women must become mothers and this is also a belief of many women (Richko, 2016). Richko further argued that though the demands of contemporary society may affect decisions on motherhood, the
desire for bearing and caring for children still remains among many women. The implication is that women who stayed unmarried or childless, were usually given some derogatory labels which pushed them to go for child adoption or other mothering roles as a way of avoiding demeaning remarks from the public (Richko, 2016). On the contrary, Mason and Goulden conducted a study among female faculty in a Canadian university and reported that most of the females were more likely to have fewer than their desired number of children or become completely childless in comparison to their male counterparts (as cited in Snow, 2017). Solomon (2011) further explained that the reason for this finding may include either the need to delay childcare in order to complete academic commitments or the tendency to sacrifice personal relationships to achieve some level of academic success.

In relation to the above assertion, O’Brien and Hapgood (2012) had suggested that mother’s “second shift” could be a cause of fatigue among females. According to O’Brien and Hapgood (2012), the second shift occurs in situations when females take up roles such as childcare, housework and caring for elderly family members. This was confirmed by a survey conducted in Canada by McMaster professors which reported that there were still many instances where unequal sharing of responsibilities between men and women in relation to domestic duties and childcare occur (Yates, 2014). The report continued that on average, women spend 15 hours a week working in the home as compared to 13 hours for men. On issues related to elderly care, Statistics Canada (2011) showed an increased disproportion of hours used where men spent 11 with women spending 17 hours. Parker (2016) added that in present times just like before, it was more possible for women to take leave of absence to care for their children or aged parents or go on a maternity leave.
Commenting on support from other members of the family, Bianchi and Milkie (2010) had reiterated that there is an increased involvement of men with their children resulting in reduced differences between men and women on housework and childcare. However, mothers’ unwillingness to give up control in the childcare area makes their involvement with the children quite longer than fathers’ because they tend to feel more responsible for the child’s well-being (Ogletree, 2014). In support, Fluehr (2013) reiterated that the age of the children is an important factor to consider as caring for younger children may be more demanding compared with grown-up children. For instance, a study by Home found that student mothers with children under the age of thirteen suffered from increased role strain than those with grown-up children who are almost leaving home (as cited in Fluer, 2013).

Snow (2017) also stressed that “balancing personal and professional life with a small child is a challenge for everyone, regardless of profession because making time for the day-to-day tasks of parenthood, particularly since our daughter is small, has been exhausting” (p.235). This implies that female students in distance education in Ghana were also likely to experience such role strains as reiterated by Bianchi and Milkie (2010) but this assertion can only be confirmed through study involving participants selected from institutions which offers distance education programmes and this is the gap the current study sought to deal with.

Foster and Offei-Ansah (2012) conducted a study in five public universities in Ghana among female students resident in university halls and reported that participants were very concerned about family welfare issues, especially caring for the children. The study revealed that the respondents claimed absenting themselves from class in order
to sort out family issues and attend to their children at the cost of their academic work (Foster & Offei-Ansah, 2012). The finding confirmed Bean and Metzner’s (1985) assertion that students are likely to leave school when their external environmental conditions are not favourable. As this study was conducted among female students who were residents on university campus, the focus of the current study was to find out how the female students in distance education programmes in the selected universities are also faring in respect to these roles.

Another study was conducted by Bosch (2013) among postgraduate student mothers in Australia using both quantitative and qualitative techniques for collecting data. The findings showed that the main challenge of the student mothers as they juggled with childcare was lack of support. The participants reported overcoming difficulties by using time-management skills, partner support, and by sacrificing sleep and recreation time. Their roles as mothers served as a strong motivation for achieving personal goals and need to create opportunity to better the future of their children. Bosch (2013) concluded that undertaking a postgraduate education rewarded the student mothers with a sense of freedom, growth, pride and achievement as well as helping in developing their professional identities. It can be observed that though this study focused on postgraduate students who had experienced a longer period of schooling, the participants reported challenges trying to combine studies and motherhood. It is in this perspective that the current study wanted to find out how female students doing undergraduate studies deal with their roles and its effects on their persistence.

While both men and women do care work within the society, women are usually much more associated with caregiving situations than men because of their primary
roles as caregivers (Wattai, 2013). This woman-as-caretaker phenomenon is not a new concept and women have historically been linked with caregiving and home responsibilities in many cultures (Wattai, 2013). For instance, Richko (2016) cited Jenike’s assertion that in the Japanese culture the burden of elderly care is placed solely on the daughter-in-law. In addition, Wattai (2013) indicated that studies in caregiving has shown that African American women caregivers in particular feel less stressed or burdened as compared to the white women because they might have been prepared to care for their aging parents.

A study by Wattai (2013) conducted among African Americans in New York found that 96% of women caretakers who care for multiple family members experienced a higher level of conflict in trying to fulfil all their roles, which affected their well-being. The study further reported that as caregivers take on more roles (i.e. mother, wife, employee, student and caregiver of parent), they are more likely to become more stressed because the roles usually conflict with each other. A related study by Chang, Chiou and Chen (2010) also showed that a major factor that caused stress and burden for caregivers was the number of hours the women engaged in the caregiving work. The situations raised in the studies discussed above are not different from the roles played by a typical female in most Ghanaian societies. If a female student got engaged in any of these roles, it was likely she might experience role strain if she does not work hard and also set her priorities right. The question is how do these roles affect the persistence of the females who are on the distance education programmes in the selected universities under study? This was one of the questions the current study sought to answer.
Discussing issues centred on marital roles, Lauzon claimed that married female students who pursued higher education usually underwent three progressive phases of transition (as cited in Mudhovozi, 2011). According to Lauzon, most students were concerned with getting adapted to their new role as students during the first phase. This phase was usually characterised with a lot of academic tension and anxiety. During the second phase, the female student begins to realize that her family life may have suffered as a result of her attention shifting towards her studies therefore she tries to make up for the loss by being available for the family at the expense of her academic studies. The final phase three was marked by efforts to balance studies and family responsibilities with the view to succeed. At this stage, married students seemed to have much control over the balance between personal, family duties and studies to result in persistence (as cited in Mudhovozi, 2011). In another instance, Sweetman (2003) observed that on the average most Ghanaian girls and women marry at the age of 20 years. It is therefore very common and culturally acceptable to find girls and women in schools or out of school having to manage married lives. In the Ghanaian cultural settings, the maturing female is most of the times burdened with a lot of familial roles and responsibilities which increase as she gets married (Forster & Offei-Ansah, 2012).

Focusing on college persistence among male and female students, a study conducted by Leppel (2002) found that married students most often tend to take fewer courses and end up taking longer time to graduate from school. Leppel discovered that though married students seemed motivated to complete, the time and strain associated with longer periods of study had a negative effect on persistence for both men and women (Leppel, 2002). In another study, Foster and Offei-Ansah (2012) compared married and single campus-based female students on family roles and responsibilities in five
public universities in Ghana using a survey. The study found that the married women were overwhelmed with the many roles that competed negatively with their persistence in their course of study. Since both studies were done with students on a campus-based programme, it becomes quite imperative if studies were also conducted among students in a distance education programme as an attempt to create a balance and provide a better picture of the situation in a more holistic manner.

The concluding section of this part of the review concentrated on domestic duties performed by females as seen in most societies. Family life solidly rests on the shoulders of women in all areas of the world. As spouses, parents and caregivers, they take on the primary responsibility for ensuring the proper functioning of families and the provision of everyday care and maintenance (Mrkic et al., 2010). Within the traditional family where gender roles were highly prescribed, men are expected to work outside the home and provide wages while women were expected to tend to the family matters inside the home (Levtov, 2015). This is more pronouncing in more patriarchal cultures such as Ghana and the autonomy of women are sometimes severely affected (Adusah-Karikari, 2008).

In Ghana as Adusah-Karikari (2008) reiterated, traditionally gender-role identification and household responsibilities are clearly established and passed down to children in the family. As a result, it is a common belief among many traditional households in Africa and Ghana in particular that men as family heads need higher income than women to discharge their responsibilities which is more plausible through obtaining education (Boohene, Kotey & Folker, 2005). Families with meagre income focus on the education of the male children as against females. Preparing family meals, maintaining hygiene, caring for other family members and a myriad of other chores
related to children consume a good part of the day for females in the world no matter the level of one’s education (Mrkic et al., 2010). This especially affects most females who spend 16 to 18 hours a day collecting fodder, cooking, cleaning, and caring for their families (Pardhan, as cited in Shah, 2015).

Plummer (2000) reported on a study among females on distance education that “what all females with families seem to have in common, though, is the apparent incompatibility of family and domestic responsibilities with serious distance education, and the need to learn to assert their right to be a student as well as a mother and housewife without feeling guilty” (p. 72). The implication is that in an attempt to combine studies with family responsibilities, female students might find themselves in a dilemma as each of these responsibilities needs equal attention, time and energy. The current study intended to find out how family responsibilities affected the persistence of female students irrespective of their social status. This was deemed important because a study conducted by Abuya et al. (2016) in Kenya revealed that family responsibilities affected the transition of girls from primary to secondary schools. When time and resources available to an individual to fulfil numerous roles are incompatible, it leads to substantial stress (Rothbard, 2001). This may result in negative effects on mental health of a female student and may affect her will to persist successfully on a distance education programme.

2.6 Financial Responsibilities and Student Persistence in Higher Education

The interplay of economic and cultural factors may have the potential in determining the level of students’ persistence in a college (Burrus et al., 2013). In support, Coleman asserted that a student’s financial responsibilities can be one of the important predictors of persistence towards degree attainment as these directly affect
the provision of resources at home and indirectly affect supply of the needed social investments necessary to succeed in college (as cited in Burrus et al., 2013). In a research involving 50 institutions in the United States, Westrick and Robbins (2012) found that the effect of financial responsibilities on persistence has a relationship with a student’s first year Grade Point Average. This implies that financial responsibilities may have contributed immensely towards the academic performance and persistence of students in the study.

A study conducted by Paulsen and St. John (2002) on financial responsibilities and higher education in the United Kingdom showed a relationship between financial responsibilities and persistence, the researchers indicated that there were several other significant interactional effects. For instance, the study reported that women from low-income and single-parent families were less likely to persist than men because the attraction to leave school in order to seek employment opportunities was usually high (Paulsen & St. John, 2002).

Reay (2003) also conducted a qualitative study in United Kingdom among 12 working-class women who were attending higher education and found that the women especially those with children, were held between the need to earn money, meet domestic responsibilities and wanting to study. Reay further indicated that the women's narratives showed evidence of risks and costs involved as they made effort to participate in higher education. The study reported a severe financial hardship experienced by single mothers who were managing paid work with studies (Reay, 2003). Such financial difficulties usually exposed single women with low levels of financial resources to the risk of dropping out of university particularly when they
experience the extra cost incurred by educating their children (Reay, 2003). This implication is that single mothers who are female students are more likely to have problems with persistence as compared to their married counterparts. This study however, focused on all female students irrespective of their marital status.

In the view of Goldrick-Rab (2010), financial aid is also associated with higher persistence in distance education which is usually a popular choice among lower income students in the United States. A study by Terriquez and Gurantz (2015) investigated how financial factors contribute to the restrained upward educational mobility experienced by a cohort of young adults. The study conducted an examination on college attendance patterns of the respondents. Using telephone survey and in-depth interview, the researchers gathered data from 18 to 26 year olds to analyse their decisions for leaving college with intentions to return or patterns of stopping out (Terriquez & Gurantz, 2015). It was found that financial considerations which played a key role in shaping the persistence decisions of the respondents included accessibility to a financial aid, attending to family financial obligations, ability to pay for housing expenses and rising tuition rates (Terriquez & Gurantz, 2015).

In another study, Mamiseishvili and Deggs (2013) investigated how demographic characteristics, environmental factors and personal goals of low-income students affected their persistence to degree completion. The study aimed at examining persistence outcomes over a 3-year period across the national sample of students from low financial backgrounds at public institutions in the United States by utilising the Beginning Post-secondary Students Longitudinal Study (BPS:04/06) data set. Using a
multinomial logistic regression analysis, the study revealed that different sets of factors predicted persistence and transfer for low-income students in the study. The researchers recommended that identifying these factors will help administrators to better serve the needs of their students (Mamiseishvili & Deggs, 2013). As proposed by the researchers in the above study, having information on the characteristics of students who patronise an institution will go a long way to help administrators as they formulate policies and interventions to assist students. It is the aim of the current study to produce information on female students to serve as a basis for decision making among administrators in distance education institutions.

In a related study, Adu-Yeboah (2011) conducted a study among mature female students in one public university in Ghana using a qualitative approach. The aim of the study was to explore the experiences of these mature female students and also find out the strategies they adopted to navigate through higher education as they juggle with other duties. The study revealed that the female students adopted personalised strategies to enable them to progress through their education. Adu-Yeboah (2011) concluded that the economic backgrounds, marital status and family lives were some of the major factors that influenced the way women students experience higher education in Ghana.

In the view of Renehan (2015), attending college has transformed from being an intellectual activity to a financial difficulty for most students and parents. To be able to attend and complete college successfully, it has become very essential for students to have access to a financial aid or the get support from parents (Renehan, 2015). Highlighting on women in college, the American Association of University Women
(AAUW, 2016) reported that many female students as compared to men tend to depend on student loans and also they take a longer period in repaying such loans. Currently, over 40% of women in American households are the primary breadwinners with children, with single mothers accounting for almost two thirds of this number (Finningan, 2015).

In most societies, the major roles of women are usually narrowed to child nurturing and homemaking. This constrain their aspirations to enrol in a higher education and to take up professional occupations so much so that when women started pursuing work, most employers thought they were seeking temporary jobs in order to supplement family income (Saleh, Yu, Leslie & Seydel, 2017). With such belief, women received lower salaries compared to men who possessed the equal level of educational attainment and doing the similar job (Saleh, et al., 2017). For instance, Kitroeff and Rodkin (2015) revealed that women with MBA certificates in the United States earned an average of $35,000 less than the men even after a number of years of graduation making the women take an additional year in repaying their student loans.

In the situation where the cost of attending higher education has increased close to 300% over past two decades, it becomes imperative that as one discusses persistence, a student’s ability to pay for a university education must be considered (Bean, 2005; Burrus et al., 2013). Such situations usually compel some students to seek loans and other financial aids in order to support themselves and care for their families as well. Saleh et al. (2017) however, found that one of the major concerns of “student loans is the ability to repay them, and this has been an issue of importance to all college students, especially to female students” (p. 228).
Some sources for financial assistance may include support from family and friends, students’ loan trust, bank loans, workplace scholarships and help from one’s religious affiliation, among others. It can be observed from the foregoing discussions that, most of the studies concentrated on students either in campus-based institutions or in western orientation. The current study looked at only female students on a distance education programme with a face-to-face option within the Ghanaian context. The focus was to find out how the financial responsibilities of these female students affected their persistence as students in distance education programmes.

2.7 Social Roles of Females in Contemporary Societies

In all contemporary societies across the globe, it is expected that females take up opportunities that would help them give back to the society in the form of active participation in religious, traditional and political roles. According to Ruderman, Ohlott, Panzer and King (2002) involvement in such roles gives an individual more opportunity to build a stronger network of social contacts. Ruderman et al. (2002) stressed that these social roles give the individuals more opportunities to feel worthy and can bring about more situations in which one can practice skills that improve confidence and self-esteem (Ruderman et al., 2002). Rothbard (2001) further argued that the positive benefits from the experience of holding a social role can be transferred and used for possible further role demands. It may be emphasised that African societies expect that both women and men to play complementary roles purpose of enhancing societal effectiveness (Odame, 2014). In the view of Sheldon (2016), Africa had a high incidence of matrilineal descent, a social system that place a woman and her female relations at the centre of kinship and family. Women, therefore, play many social roles through women’s organizations, as spiritual leaders
and sometimes as queen mothers, advising male rulers and serving as co-rulers (Sheldon, 2016). In most African societies, status transformation rites associated with birth, puberty, marriage, death and festivals come with an active participation of women.

A study looking at the level of women’s communal participation in Ghana by Acheampong and Dinye (2015) observed that only 27% out of the 353 women studied were members of Community Based Organisations. It was recommended that women and girls education should be encouraged as a way of promoting women’s participation in local governance (Acheampong & Dinye, 2015). Nevertheless most females still take active part in the planning for most social celebrations in their homes and communities. The question this study sought to answer is: Does the engagement of these roles affect the persistence of these female students who double as mothers, wives, sisters, aunts and women leaders in their homes and societies?

In concurring with the above discussion, Lomsky-Feder and Sasson-Levy (2016) asserted that, most experts and researchers in the Western had agreed that there were some societies in which women had enjoyed greater achievement in societal recognition and power. Other researchers have however indicated that “still women almost everywhere were excluded from certain important economic or social activities; their social roles as mothers and wives were associated with a smaller set of powers and prerogatives than men’s social roles of fathers and brothers. Therefore, one can state that “the gender irregularity is a universal phenomenon of the human social life” (Balgabayeva, Samarkin, Yarochkina, Taskuzhina, Amantaeva & Nazarova, 2016, p. 5276). Nouraldeen and Elyas (as cited in Alsuwaida, 2016) also opined that the culture of a group of people plays an important role in how certain
activities are perceived. It is very crucial for teachers and learners to use culture and differences within it, to bring out the positivity in both men and women. This is important because in most societies, people especially females who try to deviate from some of these cultural gender norms, are often ridiculed, shunned or physical abused (Slattery, 2013).

Aisenburg and Harrington conducted a study in Britain and reported that societal norms which prescribed that the home is the proper and private sphere for women has become so “ingrained in everyday social life, that both men and women mold their lives accordingly” (as cited in Williams, 2017, p. 27). Aisenburg and Harrington coined the term “the marriage plot” to explain this societal phenomenon as follows:

The correlative point in the marriage plot is that a woman’s attempt to develop other elements of her personality may undermine her inborn moral qualities and threaten her emotional and relational fulfilment. In order that she does not compromise her true womanhood, the plot imposes an inhibition on the development of a woman of capacities other than those stemming from her moral nature. These inhibitions operate against a full and free expression of sexuality in a woman, as well as against the full development of her intellectual capacities, her prowess in reason and the studious pursuit of knowledge (Aisenburg & Harrington, as cited in Williams, 2017, p. 27).

The authors contended that most women use the marriage plot as a guideline on what they should want, their behaviour and the choices they make in their lives (Aisenburg & Harrington, as cited in Williams, 2017). It is the basis on which most women assumed that they should have greater family responsibility in the home, while men focused on other public and social careers in order to provide for the financial needs of their families. Aisenburg and Harrington further asserted that though some women struggled and aspired to reach the second convention which is the “quest plot”, (defined as the values of the public life such as becoming influential political leaders and academics) they still faced difficulties associated with overcoming the marriage
plot and therefore end up battling within themselves and with the outer world (as cited in Williams, 2017).

In discussing the role of African woman in religion, Kasomo (2010) stressed that the woman is considered powerful because an African man is seen to be incomplete unless he has a woman to support him. Kasomo (2010) continued that traditionally all human accomplishments are done by men and women and the African traditional priesthood system for instance, embraces both women and men. It has been observed that women do comprise the large majority of active church members and therefore their participation in the church cannot be ignored (Crab as cited in Kasomo, 2010). Kasomo (2010) interviewed a group of women in Kenya and reported that the participants played important roles in their churches. The study found that the women were chosen to be leaders, they led in songs and in prayers since they have the best solos, they played instruments during worship, they maintained the church and they saw to it that church’s values were kept and respected. These activities as described in Kasomo’s study could really take a toll on females who may be mothers, students and working at the same time. The current study sought to find out if the females on distance education programmes had such religious experiences and whether these roles had any effect on their persistence.

A study conducted by Meena, Rusimbi and Israel (2017) in Tanzania used twenty women who shared experiences of their political lives. The study was conducted using a phenomenological research design. The participants reported that their parents (especially fathers), apart from investing in their education, also inspired them by serving as their role models. Further, the respondents indicated that their spouses
helped them financially and emotionally as well as giving support to create a family-work balance as they engaged in leadership roles. The participants also confirmed that their schools and teachers nurtured their leadership talents as school girls. Both informal and formal networks were key resources in enhancing the participants’ capacity and in supporting their aspirations to fulfil their potentials. The researchers concluded that though external factors can help stir the interest to lead among females, an individual’s specific traits such as an ambition to be a leader, the determination to serve others and commitment to hard work played a critical role in determining the choices to be made (Meena, Rusimbi & Israel, 2017).

In a related study, Anyango, Alupo and Opoku (2018) assessed the extent to which females participated in local and national politics in Kenya by looking at the level of participation and barriers. The researchers employed a qualitative approach and used interviews in collecting data to analyse the contribution of females in politics. Using purposive sampling, 30 respondents, which were made up of 11 males and 19 females participated in the study. The study revealed that though there had been increase in the level of participation, females faced some challenges in active participation in political engagements. These included the violence that characterised most political environments, preference for male candidates among the political parties and lack of support and trust from other females. The researchers recommended that there was the need for a concerted effort and close partnership between advocacy groups and legislators so as to elect females into offices as a way of protecting the spirit of the constitution and also giving females a due representation (Anyango, Alupo & Opoku, 2018).
It can be observed from the foregoing studies that though the participants were out of school, good education might have played a role towards shaping up their political aspirations. Also there was an indication of some challenges the participants faced in trying to engage in politics. These challenges might not be different from what a female student who engaged in active politics might also experience. However, one can notice that the studies used qualitative approaches to collect data. This study employed a qualitative research design in the mixed methods approach to interview the female students to ascertain the level of participation in local or national politics and leadership and whether there was any effect on their persistence as students of distance education programmes in Ghana.

2.8 Work Demands and Persistence of Students in Higher Education

A survey conducted by the Higher Education Research Institute in 2002 in the United States found that 65.3% of the freshmen have either “some concern” or “major concerns” about not having enough money to complete their college degrees (Nonis & Hudson, 2006, p. 151). This concern was likely to increase in the years ahead because of reduced funding for higher education by most countries (World Bank & UNESCO, 2000). The survey further indicated that more women (70.9%) than men (58.3%) were concerned about whether they would have enough funds to complete college (Nonis, & Hudson, 2006). Ghana is no exception to this phenomenon with the ongoing debate on individual’s private gains derived from higher education and the issue of cost sharing (Boit, 2012; Kapur & Crowley, 2008). It is based on this preamble that the study sought to find out how the work-study phenomenon is affecting the smooth persistence of female students in the distance education programmes in the selected universities under study.
Using interviews, Phillips et al. (2016) conducted a study to find how 25 women physicians successfully balanced their work-life situations in United States. The researchers reported that the participants experienced some challenges in managing their multifaceted roles; they employed a set of strategies that resulted in a successful work-life balance. Some of the strategies respondents used included reduced or flexible work hours to help create a balance with personal roles. Second, many of the participants claimed they had supportive relationships with spouses and partners, parents, or other members of the community. Third, participants were able to have adequate time for their children, leisure and rest by maintaining clear limits around their working lives (Phillips et al., 2016). This study confirms the important role of the support of others in the lives of females.

Wyland, Lester, Mone Winkle (2013) conducted a study to look at the extent to which one’s work role is interfered by school role-related demands using two samples of students who were enrolled in MBA programmes in a distance education institution. In addition, the study discussed the tuition reimbursement facilities many organisations offer their employees embarking on graduate studies. Wyland et al. (2013) noted that there was interplay between psychological processes which consisted of level of mental preoccupation and identification with the school role on one hand and physical processes involving preoccupation such as time and effort one invests in the school activities. Wyland et al. further explained that students usually apply theories learned in school to their work roles when students concentrated more on their school work. However, their work role is likely to suffer when much time and energy is invested in the school roles (Wyland et al., 2013). The study concluded that involvement in school can lead to higher levels of school-work conflict which in turn can lead to lower levels employee work output (Wyland et al., 2013).
Triventi and Trivellato (2009) also tried to analyse the educational careers aspirations of university students using data from the Italian Longitudinal Household Survey. With the help of logistic regression models which controlled for socio-demographic and school-related characteristics, Triventi and Trivellato (2009) found that female and male students who were categorised as high intensity (working for more than 20 hours in a week) workers showed higher risk of dropping-out and a tendency of experiencing a delayed graduation as compared to students who were not working. The study further revealed that though low intensity workers had a smaller risk of dropping out when compared to non Working students, they faced a similar probability of having a delayed graduation (Triventi & Trivellato, 2009).

A similar study conducted by Robotham (2009) in United Kingdom using students studying in higher institutions revealed that most students were working either in part-time or in full-time employments while studying. Robotham found that majority of those students reported that they felt the obligation to work in order to afford basic necessities and also to support themselves and their families financially. Research by Pascarella and Terenzini, (2005) in Illinois in the United States among community college students suggested curvilinear relationship between working and persistence. The researchers reiterated that while employment can help raise enough income to cater for financial needs, it also likely to limit time devoted to coursework (Pascarella & Terenzini, 2005). Other authors however believed that studying and working at the same time can affect students’ persistence positively so far as the working hours were not intensive (Pascarella as cited in Burrus et al., 2013). Findings by Horn and Berktold (as cited in Burrus et al., 2013) also suggested that workload of less than 15 hours in a week was positively related to persistence, while students who worked more hours per week showed negative persistence rates.
Igarashi and Kumo (2016) using a survey interviewed 40 female students in a distance education programme in Tajikistanis on their employment status. The researchers reported that most of the female students, whether they were currently working or not, did not seem to object to the idea that working helped women to become financially independent. The participants claimed though they continued to work, they did not abandon their households or studies just because they had jobs. The female students in the study were however divided when asked whether the family or work was important. Almost all the participants choose family over work, with few of them mentioning that the two were equally important (Igarashi & Kumo, 2016). The authors concluded that most of the female students in the study were seen to be shouldering a double burden of taking up full-time jobs and performing housework and therefore there was long way to go in efforts towards the achievement of work/life balance among women.

In a related study by Mudhovozi (2011) in South Africa, the researcher used phenomenological qualitative approach to find out the reasons why the participants combined multiple roles with studying in higher education. The respondents confirmed among other reasons that though they experienced some level of time strain combining work with studies, they enjoyed financial independence, built confidence at workplace by applying knowledge from school to work and stood a good chance of progressing to more challenging positions in their places of work (Mudhovozi, 2011). Most of the studies discussed above showed the benefits and conflicting nature of work-study relationship among students. It can be seen from the above studies that as some researchers reported a negative effect of work demands on the persistence, others found that working and studying at the same time had positive effect on the
respondents. These findings were however related to the intensity or the number of hours the students engaged in working. It was in this vein that the current study which focused on the work demands of female students in distance education programmes in Ghana was conducted with the aim of finding out the situation on the ground in relation to the foregoing discussions and also as a way of contributing to the local literature.

2.9 Summary of Literature Review

The reviewed literature showed that the nature and characteristics of students have been of great concern to many researchers due to the role education plays in ensuring that national goals and objectives were achieved. The review showed that most persistence studies focused on institutional based support to help improve the persistence of students while this study opted to concentrate on the environmental factors that might affect persistence of students but were beyond the control of institutions. It can be observed from the review that a great number of studies done on family responsibilities and persistence of the female students were conducted among female on campus based or online distance education programmes. The female students in a distance education programme with a tutorial option were targeted for this study.

In addition, while most researchers concentrated on financial aid of students as a factor to degree completion, this study looked at financial roles in relation to persistence of female students in distance education. In addition, studies reviewed showed that not much research had been done in relation to effect of social responsibilities on persistence of female students especially in the African context.
The current study also added to the literature in this respect. Again, most studies on work demands and its effects on persistence were conducted among both male and female students while this study focused on only female students in a distance education setting in Ghana. Also, most of these studies which were conducted in the western countries found mixed findings on the effect of work demands on the persistence of students. This study provided the feminine focus of work demand and persistence by using female students in distance education programmes and an African setting.

Most of the empirical studies reviewed were conducted using either qualitative or quantitative techniques in data collection and analysis. The current study adopted both the quantitative and qualitative approaches. In addition, since a considerable number of the studies reviewed were conducted in western parts of the world using participants either on a campus-based or an online distance education programmes, the findings of this study would serve as a contribution to local literature. Finally, while most studies combined both personal and institutional factors in studying students’ persistence at the college level, the current study concentrated on only external and environmental factors that might affect the persistence of female students but fell outside the mandate of the distance education institutions. The study focused on these knowledge gaps.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter described the research design and variables of the study, location and the target population of the study. These were followed by the sample and sampling techniques, the research instruments and the pilot study. The final part of this chapter discussed the data collection and analysis techniques and ended with issues on logistics and ethical considerations.

3.2 Research Design

The study employed the embedded mixed methods approach which allowed for the mixing of both “quantitative and qualitative designs for data collection and analysis before, during or after” in a single study (Creswell, 2012 p. 541; Onwuegbuzie, 2012; Creswell & Clark, 2011). This approach was suitable for the current study as the researcher collected data using correlational research design and phenomenological research design simultaneously during the collection and analysis of data. The variables to be used in study were also suitable for the use of a mixed methods model. This was because data on both the independent and dependent variables of the study could be collected and analysed using both quantitative and qualitative research designs. The qualitative data was also useful in creating the opportunity for further probing on the variables that were studied.

The quantitative data helped the researcher to describe and predict the effect of multiple roles on persistence of female students as indicated in the purpose statement. The independent variable which consisted of family responsibilities, financial
responsibilities, social responsibilities and work demands were measured quantitatively through the use of a number of items whose internal consistency were pre-determined resulting in a score of a continuous nature. The dependent variable, persistence, which was female students’ decisions on re-registering, achieving educational goals, active participation in academic related activities and the support they receive from family and friends was also measured quantitatively leading to a continuous score.

The quantitative approach of the embedded mixed methods approach was conducted using a correlational research design. This design was seen to be most suitable for the study because it allowed for relationships between variables to be described and also gave opportunity for establishing their prediction power based on the degree of association between the variables (Cohen, Manion & Morrison, 2011; Creswell, 2012). The correlational research design allowed the researcher to measure the magnitude of the effect and variations between the independent and the dependent variables through the computation of correlations between the predictor variables (multiple roles) and outcome variable (persistence). The design also permitted the researcher to use questionnaire and data analysis procedures within which description and inferences could be generalised to the population of this study.

The qualitative data on the other hand, gave the researcher an opportunity to have in-depth understanding of the phenomenon under study. The most appropriate design within the qualitative approaches which provided further understanding on how multiple roles affect persistence of female students was the phenomenological research design. There are many views on the use of phenomenology in qualitative
research but the point of convergence is that many researchers agree that the focus is on the lived experience of a participant (Creswell, 2009). The phenomenological research design was considered to be suitable for this study because it helped the researcher to investigate and make an interpretation of lived experiences of the female students in relation to multiple roles and persistence. It also served as way of confirming if what appears to be situation is actually what is real. The use of this design allowed the researcher to explore the experiences of female students who were believed to have persisted in the distance education programme through interviews. The information gained from the qualitative data was integrated into the results during the data analysis stage to support the quantitative data (Creswell, 2012; Onwuegbuzie, 2012). In summary, a diagram showing the approaches to be used in the embedded mixed methods model is shown in Figure 3.1.
Figure 3.1: Approaches in mixed methods model
3.3 Variables of the Study

The independent variable of this study was multiple roles. The specific areas of focus were family responsibilities, financial responsibilities, social responsibilities and work demands of female students. These were measured at an interval level with the help of a five point Likert sub-scales resulting in a continuous score. Persistence, which was the dependent variable, comprised female students’ decisions on issues such as confidence in re-enrolling, confidence in achieving educational goals, active participation in tutorials and group work and support expected from family and friends. This was also measured at the interval level in order to obtain a continuous score. In the qualitative approach, the phenomenon of interest which was persistence was explored through face-to-face interviews and results were narrated. Intervening variables such as institutional orientation and face-to-face sessions which were institutional based variables were not the focus of this study.

3.4 Location of the Study

The study was conducted in Ghana, specifically at University of Cape Coast and University of Education, Winneba. Both universities are dual mode institutions operating campus-based and distance education programmes. The College of Distance Education (CoDE) is the distance learning wing of the UCC, while the Institute of Extension and Distance Education (IEDE) runs the distance education component of UEW. Both institutions run undergraduate and postgraduate programmes in distance education and have centres spread across the ten regional capitals and some district capitals of Ghana. Students in the distance education at CoDE and IEDE mostly used printed course materials. They were expected to study at home and commute twice in a month to the various study centres for face-to-face sessions with course tutors.
These universities were purposively selected among the four public universities because they were mandated by the Government of Ghana to run teacher education programmes through the regular and distance education courses. CoDE was selected based on its strength as pioneering distance education especially at the undergraduate level while IEDE was chosen due to its strength in the use of a more advanced blended mode of delivery at the undergraduate levels. Both institutions were highly patronised by many female students as compared with the other universities. The concern for external and environmental factors that interplayed with persistence of female students in institutions of higher learning in general and distance education programmes in particular, was enough reason to conduct a study in the selected universities since few studies have been done in relation to these variables under study. In addition, national and institutional statistics indicated a lower enrolment figures for the female students in the distance education programmes despite the governmental interventions. This stimulated the need for an in-depth investigation focusing on how multiple roles affected the persistence of the female student in these universities in Ghana.

3.5 Target Population

The total target population was 7870 second year female students of the 2015/2016 academic year pursuing undergraduate education programmes at the IEDE and CoDE and study centre coordinators. This number was made up of 1,844 and 6,005 female students from IEDE and CoDE respectively and 21 study centre coordinators with more than four years work experience. Second year students were targeted for the study because research studies on persistence concentrated on students in their first or second year of studies (National Students’ Clearinghouse, 2014). It is believed that at
this level, most female students were able to make concrete decisions on how to persist in their studies. A report by Ruffalo Noel Levitz (2015) further asserted that to have good picture of students’ persistence, it is more effective to look beyond the first year of study.

3.6 Sampling Techniques and Sample Size
The nature of the target population required the use of both purposive and stratified random sampling techniques in selecting the participants for this study. The Yamane’s formula (Musigapong, 2013) for sample size determination was used to determine the appropriate sample for the study.

3.6.1 Sampling Techniques
The sampling techniques used in the study included purposive sampling and stratified random sampling techniques. To begin with, the purposive sampling technique was used to select the study centres with a higher number of female students from both institutions. Using the researcher’s discretion which was guided by similar studies and logistics as indicated by Israel (1992), 21 study centres were purposively selected for the study. This was made up of study centres that offer education programmes for second year students with a minimum of 90 female students. This was a necessary requirement because it allowed the results of this study to be subjected to inferential statistics (Cohen, Manion, & Morrison, 2011). Based on this criterion, 15 study centres were selected from CoDE from a total of 53 education study centres while six were chosen from a total of 33 education study centres of IEDE. Using a proportional allocation method, the female students in the sampling frame were randomly selected from the each of the study centres (strata). The stratification ensured that the sample
was selected from each of the study centres. Simple random sampling technique through the lottery method was used to allow every student within each subgroup to have an equal chance of being selected to form part of the sample (Babbie, 2015).

3.6.2 Sample Size

3.6.2.1 Sample Size for Female Students

The sample size was determined with the Yamane’s formula as cited in Israel (1992) and Musigapong (2013). The formula read as follows:

\[ n = \frac{N}{1 + Ne^2} \]

From the formula above, ‘n’ stands for the sample size, ‘N’ represents the target population for the study and ‘e’ denotes the confidence level adopted, which in this study is 0.05. The use of this formula ensured a greater level of precision in determining the proportion of sample size of this study. Using the Yamane’s formula, the sample size for female students was 441. To further distribute the sample proportionally among the selected study centres, Kothari’s (2013) method of proportional allocation was applied. This formula is written as:

\[ n_i = n \cdot P_i, \quad n_2 = n \cdot P_2, \quad n_3 = n \cdot P_3 \ldots \quad n_{21} = n \cdot P_{21} \quad (Kothari, 2013, p.63) \]

whereby \( n_i \) stands for the sample in a given stratum, \( n \) standing for the research sample size, and \( P_i \) representing the proportion of population included in stratum. Applying this formula, the computation of the sample size for each stratum \( (n_i) \) was done such that the first stratum was computed as:

\[ n_1 = \frac{181}{3536} \times 443 = 23 \]

The total sample for female students per the study centres is presented in Table 3.1.
Table 3.1: Sample size of female students by study centres

<table>
<thead>
<tr>
<th>Name of Study Centre</th>
<th>Number of Female Students</th>
<th>Number Sampled</th>
</tr>
</thead>
<tbody>
<tr>
<td>KASS</td>
<td>181</td>
<td>23</td>
</tr>
<tr>
<td>TI Ahmadiyya</td>
<td>155</td>
<td>19</td>
</tr>
<tr>
<td>KTI</td>
<td>180</td>
<td>22</td>
</tr>
<tr>
<td>Techiman</td>
<td>147</td>
<td>18</td>
</tr>
<tr>
<td>Cape Coast</td>
<td>354</td>
<td>44</td>
</tr>
<tr>
<td>Kasoa</td>
<td>154</td>
<td>19</td>
</tr>
<tr>
<td>Oyoko</td>
<td>147</td>
<td>18</td>
</tr>
<tr>
<td>Ada</td>
<td>174</td>
<td>22</td>
</tr>
<tr>
<td>Ebenezer SHS</td>
<td>190</td>
<td>24</td>
</tr>
<tr>
<td>Tamale</td>
<td>209</td>
<td>26</td>
</tr>
<tr>
<td>Zebilla</td>
<td>112</td>
<td>14</td>
</tr>
<tr>
<td>Wa</td>
<td>116</td>
<td>15</td>
</tr>
<tr>
<td>Akatsi</td>
<td>138</td>
<td>17</td>
</tr>
<tr>
<td>Tadisco</td>
<td>186</td>
<td>24</td>
</tr>
<tr>
<td>Bolgatanga</td>
<td>106</td>
<td>13</td>
</tr>
<tr>
<td>Accra Academy</td>
<td>169</td>
<td>21</td>
</tr>
<tr>
<td>Atraco</td>
<td>107</td>
<td>13</td>
</tr>
<tr>
<td>Kumasi UEW</td>
<td>212</td>
<td>27</td>
</tr>
<tr>
<td>Tatco</td>
<td>239</td>
<td>30</td>
</tr>
<tr>
<td>Sunyani</td>
<td>145</td>
<td>18</td>
</tr>
<tr>
<td>Winneba</td>
<td>115</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3536</strong></td>
<td><strong>441</strong></td>
</tr>
</tbody>
</table>

Source: Student Support Service Unit, CoDE and IEDE, 2017

3.6.2.2 Sample for Key Informants

To collect the qualitative data, a maximum of six out of the 21 study centre coordinators who had served as coordinators for a minimum of four years were purposively selected for a face-to-face interview session. It was believed that this criterion was important to ensure that the participants to be selected have enough
experience on the phenomenon (persistence) under study. In addition, through the help of students’ records units of the selected universities, a number of female students were identified and using a purposive sampling technique, a maximum of 10 female students who were believed to have persisted in distance education programme were selected for a face-to-face interview session. These numbers were deemed enough as opined by Denzin and Lincoln (2011) and Creswell (2009) for a phenomenological study to reach the point of saturation.

3.7 Research Instruments

The main instruments for data collection in this study were a questionnaire and interview guides.

3.7.1 Female Students Questionnaire

The main instrument for study was researcher-made questionnaire. The questionnaire was made up of six main sections, A to F. Section A of the questionnaire addressed issues on background information of the respondents whereas Sections B to E sampled the views of respondents on multiple roles (independent variable) which included family responsibilities, financial responsibilities, social responsibilities and work demands of female students. Items on persistence of female students (dependent variable) which were projected in Section F were guided by the College Persistence Questionnaire developed and validated by Davidson, Beck and Milligan (2009). The questionnaire had both open-ended and closed-ended questions. For the close-ended questions, the respondents were requested to show their level of agreement on statements assessing their views on multiple roles on a five point Likert scale. In the
case of the open-ended questions, the respondents were given enough space to express their views on the various issues raised in the questionnaire.

3.7.2 Female Students Interview Guide

Interview sessions were held conducted for female students who were believed to have persisted on their course of study using a semi-structured interview guide. The semi-structured interview guide gave an opportunity to respondents to shed more light on key issues in the study (Flick, 2014). It was considered a suitable instrument for this study because it gave the researcher an opportunity for further probing and also prevented digressions during interview sessions. The aim of the interview was to create the chance for these female students to shed more light on key issues in the study such as family, financial and social responsibilities and work-related demands and how these affected their persistence on their academic work as stated in the objectives of this study.

3.7.3 Interview Guide for Study Centre Coordinators

Interviews were conducted with the aim of seeking the opinions of the study centre coordinators who were in charge of the day-to-day management of the study centres. Their views and sentiments on the multiple roles of female students who used their study centres helped to enrich the findings of the study. The instrument was structured in line with the issues raised in the questionnaire. This was important because it enabled the researcher to integrate the results obtained into the quantitative data.
3.8 Pilot Study

Piloting of the instruments was done in two study centres which were not included in the current study but had similar characteristics as the study centres selected for this study. The purpose of piloting was to “check the clarity of the questionnaire items, to eliminate ambiguities or difficulties in wording, to check readability levels for the respondents, to gain feedback on response categories for the various items, check for the appropriateness of items and time taken to complete the questionnaire” (Cohen et al., 2011, p. 341; Wilson & McLean, 1994). The researcher pre-tested the instruments in two study centres in the Eastern Region which were not sampled for the main study. In all, a total of 40 participants, which was made up of 38 female students and two centre coordinators were used in piloting the instruments. Out of this number, 36 female students answered the questionnaire while two study centre coordinators and female students each were used to pilot the interview guides.

The information gained from the pilot study was used to modify the instruments. It also provided cues that were useful for conducting the main study, analysing the data as well as served the basis for conducting a reliability test statistically. The pre-testing of the interview guides which lasted for 25 to 30 minutes each helped the researcher to restructure some of the questions to fall in line with the objectives of the study. It was also noted that additional time was needed for creating rapport and for allowing the respondents to organise their thoughts so as to respond to the questions appropriately. The researcher also noted that in addition to the short notes, there was the need for a good tape recorder for the interview sessions in order to ensure that all the important information provided by the interviewees were appropriately recorded for effective transcription.
3.8.1 Validity of the Instruments

The study used both professional and expert assistance in validating the quantitative instruments. Content validity was established by requesting for the judgement of five people with different expertise on the variables under study. These experts included a researcher in distance education, a lecturer in female studies, a lecturer in a distance education institute, a coordinator of a distance education programme and a female student who had graduated through a distance education programme. These experts scrutinized and rated the relevance of the items in the instruments using the scale; 1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, and 4 = highly relevant (Davis, 1992). The scale was then dichotomised into; not relevant (1 = not relevant, 2 = somewhat relevant) and relevant (3 = quite relevant, 4 = highly relevant) for easier computation. Item Content Validity Index (I-CVI) was computed by summing up the number of experts who rated the item 3 and 4 and dividing the sum by the five experts who rated the item (Polit & Beck, 2006). Items with a I-CVI of 79% and above were maintained, those with values between 70 and 79 per cent were subjected to revision while items with relevancy value of 70% and below were eliminated (Polit & Beck, 2006). These results guided the researcher on which items needed revision, deletion or substitution. For instance, Item 30 under the financial responsibilities did not meet the criterion and was deleted from the instrument.

3.8.2 Reliability of the Instruments

The Cronbach’s alpha of reliability was used to analyse participants’ responses in order to determine how items in the questionnaire related to one another (Cohen et al., 2011). This formula was useful because it provided a measure of the extent to which all the items were positively interrelated and working together to measure the
variables of the study (Ary, Jacobs, & Razavieh, 2002). The quantitative aspects of sections B to F of the Questionnaire on Multiple Roles and Persistence for Female Students were subjected to a reliability test. A coefficient of .70 and above was deemed as acceptable and adequate enough to allow the researcher confirm the instruments as reliable (Pallant, 2013; McMillan & Schumacher, 2010). This method was considered the best for testing the reliability of the instruments because it is statistic, simpler and easier than split half which relied more on the skill of the researcher in ensuring that items had equal strength to be able to accurately determine its reliability. It was also useful in testing the internal consistency of items in the questionnaire for this study which had different item scales (Cohen et al., 2011).

The following reliability coefficients were obtained for the various sections of the female questionnaire; family responsibilities 0.64, financial responsibilities 0.79, social roles 0.85, work demands 0.76, and perceptions on persistence 0.72. The researcher found the overall reliability for the instrument to be 0.75. The indication was that they were acceptable for research purposes as noted by Pallant (2013) and McMillan and Schumacher (2010). It is worth noting that the pilot-testing of the questionnaire guided the researcher to modify some sections and some items in the instruments. Some statements that were deemed misleading, repetitive or ambiguous were subjected to revision to ensure clarity before main data collection was conducted. For instance, “Section A” of the female students’ questionnaire was considered to have too many items and therefore, some items were removed. Again, the ‘Section C’ of the questionnaire gave a negative reliability coefficient on the first instance. Based on this result, the items in the section were revised and the section was subjected to another piloting in order to correct the anomaly. Reliability of the
qualitative data was done using member check (Creswell, 2009). After the transcriptions, participants were asked to confirm whether the information they had given was in line with the notes taken. This allowed for the necessary corrections, additions and revisions to be made to reflect the true meaning of the phenomenon under study as experienced by the individual participants.

3.9 Data Collection Techniques

The data were collected following the under listed procedures. In the first place, approval from Dean of Graduate Studies, Kenyatta University was obtained to ensure that the requirements of the university’s Research Board and researcher’s credibility were satisfied. This was used as evidence to allow the researcher obtain approval from the Registrars of CoDE and IEDE in order to gain access to the research site. The researcher trained two research assistants to help in the data collection. These assistants were coached to make them familiar with the background, purpose, objectives and instruments to be used in the study. The instruments for data collection were properly typed and well printed. The researcher ensured that they were enough, clear and readable. A budget was prepared to serve as guide to the financial commitments that were incurred in this study.

At the research site, the sample of the study was briefed on the purpose of the study and on how the questionnaire was to be completed. Participants were also informed of their right to participate freely or withdraw from the study at their will. This was followed by the administration of the instruments. The research assistants administered the questionnaire, gave additional clarification and helped the participants where necessary. In addition, they collected the filled questionnaire on
the same day as respondents were likely to leave for home at the end of a class and might find it difficult to return a questionnaire if they were allowed to take them away. The interview session was undertaken by the researcher. This was done using a semi-structured interview guide which allowed the researcher and the interviewees to probe deeper into the key issues with the aim of enriching the study with in-depth information and clarity on the variables under investigation. With the permission of the participants, the interviews were tape recorded to ensure effective transcriptions. Using the research assistants, the questionnaire were subjected to inspection, sorting, serialising and coding, and made ready for analysis by the researcher. The researcher completed these activities within a period of three months.

3.10 Data Analysis

The study employed the use of both quantitative and qualitative techniques to analyse data. Descriptive and inferential statistics were used to analyse quantitative data. Qualitative data were analysed using similarities and comparisons to build common themes and bring out differences. Qualitative data were presented using narratives to support the quantitative data where applicable. The next session showed how each of the research objectives were analysed.

Research Objective 1: Determine the extent to which family responsibilities affect the persistence of female students in distance education programmes at UCC and UEW in Ghana.

The quantitative aspect of this research objective was analysed using both descriptive statistics and inferential statistics. The descriptive statistics such as frequency, percentage, mean and standard deviations were used to analyse the responses on
family responsibilities as viewed by the participants. The mean for each item was interpreted in relation to the real limits designated to the response categories of the various sub-sections of the instrument as presented in Table 3.2

Table 3.2: Response categories of the instruments and their meanings

<table>
<thead>
<tr>
<th>Response</th>
<th>Value</th>
<th>Lower Limits</th>
<th>Upper Limits</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree/Very often/Very true of me</td>
<td>5</td>
<td>4.21</td>
<td>5.00</td>
<td>Very High</td>
</tr>
<tr>
<td>Agree /Often /True of me</td>
<td>4</td>
<td>3.41</td>
<td>4.20</td>
<td>High</td>
</tr>
<tr>
<td>Moderately agree/ Sometimes/Somehow true of me</td>
<td>3</td>
<td>2.61</td>
<td>3.40</td>
<td>Fair</td>
</tr>
<tr>
<td>Disagree/ Seldom/ Not true of me</td>
<td>2</td>
<td>1.81</td>
<td>2.60</td>
<td>Low</td>
</tr>
<tr>
<td>Strongly disagree/ Never/ Not at true of me</td>
<td>1</td>
<td>1.00</td>
<td>1.80</td>
<td>Very Low</td>
</tr>
</tbody>
</table>

Source: Badti (2017)

Table 3.2 depicts the mean limits and their corresponding interpretations based on the 5-point Likert scale to show the magnitude of response of each item as used in the Female Students Questionnaire. With the help of these real limits, the researcher was able to make judgements on the aggregated response value of the various items. Thus, a calculated mean value of between 4.21 and 5.00 for an item was interpreted as a very high agreement by respondents to a statement, 3.41-4.20 showed a high rate of respondents’ agreement, 2.61-3.40 indicated that respondents’ moderately or partially agreed with the statement. Moreover, a low respondents’ agreement to a statement was represented with mean value of between 1.81 and 2.60 while 1.00-1.80 meant a very low respondents’ agreement to a statement or an item (Batdi, 2017).
In addition, the standard deviation which is an indication of the average distance from the mean was computed. A high standard deviation obtained for an item would mean that the respondents choose varied answers while a low standard deviation showed that most of the responses clustered around the mean. A standard deviation of 0 would however mean all the participants gave the same response to a question (Bizimana & Orodho, 2014). For each of the indicators of family responsibilities, a mean and a standard deviation were computed using the Keller’s (2014) standard deviation formula written as:

\[ S = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}} \]

S in this formula is the sample standard deviation, x is each value of the dataset, \( \bar{x} \) is the arithmetic mean of the data and n is the total number of data points.

To calculate for the effect, a simple linear regression analysis was applied to test hypothesis one (1) in order to determine the effect of family responsibilities on female students persistence in distance education programmes. The scores on family responsibilities and persistence were both computed individually and a continuous score was obtained for each of the variables. The significance level was set .001 (2 tailed test) so as to improve the possibility of identifying small but meaningful effect the independent variable might have on the dependent variable (Field, 2009). The variant of the independent variable was placed in the model to determine the R-square which is the coefficient of determination and used to explain the amount of variability explained in the dependent variable (persistence) by the independent variable (family responsibilities). The R also used to explain the significance of the relationship
between the independent and the dependent variable, while the results from the Analysis of Variance (ANOVA) further established the strength of the significance of the relationship between the variables understudy. The statistical coefficients obtained from the simple linear regression were used to establish the rate of increase or decrease of the dependent variable for each unit of change in the independent variable (Pallant, 2013; Field, 2009).

The coefficients obtained from the simple linear regression analysis were reported by applying Field’s (2009) simple linear regression equation written as:

\[ Y = \alpha + \beta x_1 + \epsilon \]

This is where \( Y \) = the predicted value of the dependent variable, \( \alpha \) = is predicted value of the dependent variable if the independent variable is zero, \( \beta \) = rate of increase or decrease for each unit of change in \( x_1 \) and \( x_1 \) is the independent variable and \( \epsilon \) = other factors that may affect the dependent variable that were not observable in this study. The computation of the simple linear regression was done at 0.01 alpha (\( \alpha \)) level. Qualitative data from the responses of the female students in the open-ended component of the questionnaire and interview sessions were put into appropriate themes and analysed to support the quantitative analysis. The quantitative information generated on this objective was presented in tables and while the qualitative data was presented in narrative forms.
Research Objective 2: Determine how financial responsibilities of female students affect their persistence in distance education programmes at UCC and UEW in Ghana.

This research objective produced both quantitative and qualitative data. Descriptive statistics such as frequency, percentage, mean and standard deviations were used to analyse the responses on financial responsibilities as viewed by the participants. The mean for each item was interpreted in relation to the real limits designated to the response categories of this sub-section of the instrument as presented in Table 3.2. A simple linear regression was then applied to test hypothesis two (2) as discussed under objective one (1) and reported as such. The predictor and the dependent variables under this objective were financial responsibilities and persistence respectively. Qualitative data from the responses of the female students in the open-ended component of the questionnaire and interview session were put into appropriate themes and analysed to support the quantitative analysis. The quantitative information generated on this objective was presented in tables and while the qualitative data was presented in narrative forms.

Research Objective 3: Establish the extent to which social responsibilities affect the persistence of female students in distance education programmes at UCC and UEW in Ghana

Research objective three sought to find out how social responsibilities affected the persistence of female students in distance education programmes. Descriptive statistics such as frequency, percentage, mean and standard deviations were used to analyse the responses on social responsibilities as viewed by the participants. The mean for each item was interpreted in relation to the real limits designated to the
response categories of this sub-section of the instrument as presented in Table 3.2. A simple linear regression was applied to test hypothesis three (3) as discussed under objective one (1) and reported as such. The predictor and the dependent variables under this objective were social responsibilities and persistence respectively. Qualitative data from the responses of the female students in the open ended component of the questionnaire and interview session were put into appropriate themes and analysed to support the quantitative analysis. The quantitative information generated on this objective was presented in tables and while the qualitative data was presented in narrative forms.

**Research Objective 4: Establish the effect of work demands on the persistence of female students in distance education programmes at UCC and UEW in Ghana**

The intent of this objective was to establish how work demands affected the persistence of female students in distance education programmes. Descriptive statistics such as frequency, percentage, mean and standard deviations were used to analyse the responses on work demands as viewed by the participants. The mean for each item was interpreted in relation to the real limits designated to the response categories of this sub-section of the instrument as presented in Table 3.2. A simple linear regression was applied to test hypothesis four (4) as discussed under objective one (1) and reported as such. The predictor and the dependent variables under this objective were work demands and persistence respectively. Qualitative data from the responses of the female students in the open-ended component of the questionnaire and interview session were put into appropriate themes and analysed to support the quantitative analysis. The quantitative information generated on this objective was presented in tables and while the qualitative data was presented in narrative forms.
In addition to the simple linear regression, the study subjected the same data to a stepwise multiple regression to determine the extent to which family responsibilities, financial responsibilities, social responsibilities and work demand predict the persistence of female students in distance education programmes. All the variables were entered in the model at the same time and a Statistical Package for Social Sciences (SPSS) was used to adjust the errors associated with multiple tests. This regression analysis was done using Keller’s (2014) regression formula indicated as:

\[ Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + e \]

Where, Y represented the predicted effect of multiple roles on the persistence of the female students. In addition, \( x_1 \) = family responsibilities, \( x_2 \) = financial responsibilities, \( x_3 \) = social responsibilities and \( x_4 \) = work demands were the predictor variables. \( e \) was the error term that symbolized other variables that may affect the dependent variable but were not included in the model because they were assumed not to interfere with the independent variable. The regression analysis also established the regression Beta weights (\( \beta_1 \), \( \beta_2 \), \( \beta_3 \) and \( \beta_4 \)) which were the variation in the dependent variable explained by each of the predictors while holding other predictors constant. With the help of SPSS, a removal criterion was set such that a probability of F was set for F to enter a variable to .05 and F to remove a variable to .01 (Field, 2009). This alpha adjustment was important to control the overall error rate which may increase because of the more frequent probability testing that is done in stepwise multiple regression.

To further clarify this, \( \beta_1 \) was the contribution of the first independent variable (family responsibilities) to the dependent variable (persistence) controlling for \( \beta_2 \), \( \beta_3 \) and \( \beta_4 \). \( \beta_2 \) was the contribution of the second independent variable (financial responsibilities)
to the dependent variable (persistence) controlling for $\beta_1$, $\beta_3$, and $\beta_4$. $\beta_3$ was the contribution of the third independent variable (social responsibilities) to the dependent variable (persistence) controlling for $\beta_1$, $\beta_2$, and $\beta_4$. $\beta_4$ was the contribution of the fourth independent variable which was work demands to persistence as a dependent variable while controlling for $\beta_1$, $\beta_2$ and $\beta_3$. The significance of each of the Beta weights were established at .05 alpha level (Pallant, 2013; Creswell, 2012). The regression analysis also provided the $R$ and $R^2$ for the individual variables in the model. The quantitative information generated on this objective was presented in tables.

### 3.11 Logistical and Ethical Considerations

**3.11.1 Logistical Considerations**

In order to carry out the study, the researcher first requested for an introductory letter from the Dean of Graduate Studies, Kenyatta University in consistence with university rules and to ensure the study was credible. Permission was sought from the Registrars of CoDE and IEDE to give the researcher an access to collect data from the research sites (Creswell, 2009; Cohen, Manion, & Morrison, 2011). In addition, the instruments for data collection (questionnaires and interview guides) were well typed and in right quantities, and had clear instructions to respondents (Orodho, 2009). The researcher trained two research assistants to assist in collecting the data due to the large number of respondents used in the study and also to ensure that data were collected within the time frame.
3.11.2 Ethical Considerations

The research was conducted within the legal framework that governed the conduct of educational research. Participants were made aware of the purpose of the study and assured of their confidentiality and anonymity. This meant that any information that identified them as individuals were not included in the study. Informed consent was sought from each participant before they responded to the research instrument and they were allowed to withdraw from the study at their will. Any information from other sources and authors were correctly acknowledged. Clear and simple language devoid of biases was used in the preparation and administration of the instruments as well as the reporting of the results. Pseudonyms were used to represent participants used in the interview sessions and participants were made to confirm the information they gave. The study was further subjected to Turnitin software to ensure that the institutional requirements for plagiarism were met.
CHAPTER FOUR
FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the findings, interpretation and discussion of the study. The study aimed at establishing the effect of multiple roles on persistence of female students in distance education programmes at University of Cape Coast and University of Education, Winneba, Ghana. The findings of the study are presented in line with research objectives and focused on these four thematic areas, namely:

1. Determining the extent to which family responsibilities affect the persistence of female students in distance education programmes at UCC and UEW in Ghana.
2. Determining how financial responsibilities of female students affect their persistence in distance education programmes at UCC and UEW in Ghana.
3. Establishing the extent to which social responsibilities affect the persistence of female students in distance education programmes at UCC and UEW in Ghana.
4. Establishing the effect of work demand on the persistence of female students in distance education programmes at UCC and UEW in Ghana.

4.2 General and Demographic Information

This section looked at the demographic information of the participants in terms of return rates obtained from the administration of the instruments and the demographic nature of the respondents of this study.

4.2.1 Return Rates of Instruments

The study used a questionnaire and two sets of interview guides. These were made up of female students’ questionnaire, female student interview guide and study centre
coordinator interview guide. The sample was made up of 441 participants from two universities. Out of the 441 questionnaires administered 377 were validly filled and returned for analysis, indicating an 85% return rate. This was possible because the respondents returned the questionnaire after completion on the same day. Data collection using both instruments started from February and ended in May of 2017, lasting close to four months for both institutions. It took respondents a minimum of 20 minutes to respond to the items in the questionnaire. The interviews sessions were covered in a minimum of 25 minutes with the longest session lasting for 35 minutes.

One of the major challenges that was encountered was how to reach the respondents based on the fact that they commuted to their study centres at their convenience. This was solved by contacting the Unit Coordinators of Student Support Unit of the two universities to be furnished with the information on most appropriate times to visit the study centres. It was revealed that, most students visited the study centres during registration and collection of modules, attended face-to-face sessions a week prior to quizzes and were present during quizzes. The researcher capitalised on this information and with the help of the research assistants was able to reach the respondents of the study. All the six study centre coordinators and the 10 female students sampled for the face-to-face interviews were interviewed indicating a 100% return rate. This was achieved because efforts were made to establish the needed rapport and also the researcher tried to reach out to the participants at places and times convenient to them.

4.2.2 Demographic Information of Student Respondents
The demographic characteristics that were considered and analysed for the study included age, marital status, categories of dependents, ages of children and
educational ambitions of the respondents. This information was collected to enable the researcher to have a vivid picture of the background characteristics of the respondents who participated in this study. The responses to the questions which were related to the female students’ demographics were analysed in frequencies and percentages and presented in graphical and tabular forms. The ages of the respondents who participated in the study were analysed as categorised data. It was found that the female students were between the ages of 18 and 45 years with a few of them being in the range of 46 years and above as seen in Figure 4.1.

![Age distribution of respondents](image)

**Figure 4.1: Age of respondents**

The results indicate that 193 (51%) of the respondents fell between the age range of 26 and 35, 155 (41%) were between the ages of 18 and 25 with 29 (8%) of the respondents falling between the age bracket of 36 and above. This finding is in line with the assertion made by Hinsliff, Gates and Leducg (2012) and Bean and Metzner (1985) that most distance learners are in the ages of 21 and above and therefore age is one of the characteristics that can be used in describing students in distance education programmes. Based on this assertion, the study used the age of the respondents and
cross tabulated it with marital status. The results obtained from the respondents are presented in Table 4.1.

**Table 4.1: Respondents’ age cross tabulated with marital status**

<table>
<thead>
<tr>
<th>Age Range of Respondents</th>
<th>18-25</th>
<th>26-35</th>
<th>36-45</th>
<th>46 and above</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>31</td>
<td>82</td>
<td>19</td>
<td>6</td>
<td>138</td>
</tr>
<tr>
<td>Single</td>
<td>123</td>
<td>110</td>
<td>2</td>
<td>0</td>
<td>235</td>
</tr>
<tr>
<td>Widowed</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Divorced</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
<td>193</td>
<td>22</td>
<td>7</td>
<td>377</td>
</tr>
</tbody>
</table>

**Source: Primary data**

It can be observed from Table 4.1 that 123 (52.3%) of the respondents between the ages of 18 and 25, and 110 (46.8%) 26 and 35 were single. In addition, the results showed that 82 (59.4%) of the respondents within the ages of 26 and 36, 31 (22.5%) within the ages of 18 and 25 and 19 (13.8%) within the ages of 36 and 45 were married. The results as seen in Table 4.1 show that 235 is the highest indicating that 62.34% of the respondents were single with rest as married, divorcees and widows. This finding is in contrast with that of Sweetman (2003) who reiterated that most girls enter the marriage institution at the age of 19 in most African societies. The implication is that most females are now considering further education as a priority before getting married. This finding rather supports the opinion of McClusky (2017) that many single women have intentionally postponed marriage in order to pursue higher education towards the achievement of their aspirations and careers. In another
instance, Crabtree (2007) had also commented that the option of becoming a student in higher education provides an alternative opportunity for some females to enjoy some freedom as compared to males who have the autonomy to make a lot of personal decision. The implication is that the females in this category were less likely to suffer from the effect of juggling with many roles that come with the maintenance of families.

Another demographic characteristic that was of interest to the researcher was the categories of children who depended on the respondents for support in one form or the other. The results obtained are presented in Table 4.2.

Table 4.2: Categories of children of respondents

<table>
<thead>
<tr>
<th>Categories of Children</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological children</td>
<td>130</td>
<td>34.5</td>
</tr>
<tr>
<td>Adopted children</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Both Biological and adopted</td>
<td>19</td>
<td>5.0</td>
</tr>
<tr>
<td>Children of others</td>
<td>61</td>
<td>16.2</td>
</tr>
<tr>
<td>Biological, adopted and others</td>
<td>11</td>
<td>2.9</td>
</tr>
<tr>
<td>No children</td>
<td>154</td>
<td>40.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>377</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: Primary data

An observation can be made from Table 4.2 that 154(40.8%) declared that they were not taking care of children at the time of this study. This may be a reflection of the fact that 193 of the respondents said they were single as portrayed in Table 4.1 and may concur with reasons given by Solomon (2011) that some females either delay or sacrifice child care and personal relationships in order to complete educational commitments and achieve academic success. Moreover, the rest of the respondents
totalling 223(59.2%) admitted they had children they were caring for. Though only 2(0.5%) said they were caring for children they had adopted, it can be seen as a practice in a good direction.

The study took a further look at the age range and the number of children within the various age groups of the respondents. This was considered necessary as research has shown that ages of children of student mothers may result to role strain. The results are presented Table 4.3.

**Table 4.3: Age range of children of respondents**

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5 years (Kindergarten)</td>
<td>155</td>
<td>41.1</td>
</tr>
<tr>
<td>6 - 12 years (Primary school)</td>
<td>95</td>
<td>25.2</td>
</tr>
<tr>
<td>13 and above (High schools)</td>
<td>51</td>
<td>13.5</td>
</tr>
</tbody>
</table>

*Source: Primary data*

The results from Table 4.3 depict that 155(41.1%) of the children of the female students fell between the ages of 0 and 5 and these are children who were in the kindergarten or the pre-school. With children within the age bracket of 0 to 5, most female students were likely to spend a lot of time taking care of the needs of these children as most of them are not independent enough to care for themselves. This is in line with the view of Home (as cited in Fluer, 2013) who stressed that student mothers with children under the age of thirteen usually suffer from increased role strain than those with grown-up children who are about to leave home. A general deduction that was made from this finding was most of the respondents were likely to be affected by role strain which can affect their level of persistence as students on distance education.
Ghana like most African and western cultures still values the existence of the extended family systems. The researcher wanted to find out the status of the respondents as far as giving support to other family members was concerned. Table 4.4 shows the results as obtained from the respondents.

### Table 4.4: Categories of dependents of respondents

<table>
<thead>
<tr>
<th>Category of Dependent</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents</td>
<td>141</td>
<td>37.4</td>
</tr>
<tr>
<td>Siblings</td>
<td>67</td>
<td>17.8</td>
</tr>
<tr>
<td>Grandparents</td>
<td>21</td>
<td>5.6</td>
</tr>
<tr>
<td>Nieces and nephews</td>
<td>55</td>
<td>14.6</td>
</tr>
<tr>
<td>Other relatives</td>
<td>47</td>
<td>12.5</td>
</tr>
</tbody>
</table>

**Source: Primary data**

A significant number of the female students took care of some members of the extended family. Parents ranked highest among the categories of dependents of the participants. As noticed in Table 4.4, 141(37.4%) of the respondents mentioned that they were caring for their parents and 21 representing 5.6% had their grandparents living with them. This result supports the view of Mrkic, Johnson and Michael (2010) who indicated that traditional gender role demands make the maintenance and caring for family members one of the primary responsibility of women and female students in school were not left out. A further probe during the interview session revealed that it was the practice in most Ghanaian cultures for children to care for the needs of their parents in various ways. For instance, a female student reiterated that, “I am the first-born of my mother and therefore it becomes my responsibility to see to the general welfare of my parents. Society will look down on me if I neglect this role,” she concluded. This comment was further highlighted by another female student who
mentioned she was currently staying with his aged father and taking care of his health and feeding while his brother has taken up the maintenance of the farmland owned by the father. The above picture confirmed the existence of the extended family systems in the Ghanaian communities as experienced in most African and western cultures.

In the face of the multiplicity of roles, the study further enquired about the educational goals of the participants in terms of the levels of education they intend to achieve. The responses of the participants are presented in Table 4.5.

### Table 4.5: Aspired level of education

<table>
<thead>
<tr>
<th>Aspired level of education</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>43</td>
<td>11.4</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>63</td>
<td>16.7</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>185</td>
<td>49.0</td>
</tr>
<tr>
<td>Doctorate Degree</td>
<td>86</td>
<td>22.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>377</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Primary data*

The results in Table 4.5 show that 185(49.0%) of the respondents indicated that they intended to read a master’s programme at best. The least among them was a total of 43(11.4%) who seemed satisfied with a diploma certificate. A further probing was done into the reason why a good number of the respondents wanted to finish at the master’s level which may be supported by the studies of Crabtree (2007) and William (2017). The authors had indicated it was the desire of many mothers that their children experienced a far better easier life than they had experienced for themselves and therefore, they chose positions that prioritised the family. This was confirmed by one of the participants as she reiterated that:
By the time we attain a master’s degree most of our children might have entered second cycle and tertiary institutions and therefore we need to sacrifice the resources to get them properly educated instead of using it to educate ourselves. Again, as you grow it becomes difficult combining other roles with studying. In addition, as a professional teacher, a master’s degree is enough for me to hold any position within the education service at the pre-tertiary level.

The study compared enrolment, transition and completion rates in terms of female and male students over a period using a cohort. This was deemed necessary as persistence as a student measure is usually assessed after matriculation and before graduation.

The content analysis of this data is presented in Figure 4.2.

![Retention rates of a cohort of students](image)

**Figure 4.2: Retention rates of a cohort of students**

Figure 4.2 shows the retention rates of both male and female students over a period of three years. The rates between enrolment and completion could be termed as retention rates as seen in Figure 4.2. One can notice that there was a steady decline between enrolment and completion for both male and female students. The retention rates for female students, except for the year 2015, had been lower as compared with their
male counterparts. At completion, the rates were 53% (1770) and 47% (1548) for males and females respectively. These retention rates should have been a culmination of persistence rates which could have been obtained from the semester to semester return rates of students. The persistence rates were difficult to obtain because of the inadequate tracking system to give reliable information on the students who could not persist through their study. As reiterated by Davidson, Berg and Milligan (2009) persistence could be looked at as an institutional factor and a student factor and measured in levels. This study therefore, concentrated on the persistence level of the participants who were in the programmes at the time of the study. The intention was to find out if persistence was affected by the external and out of school roles of the female students. The next sections present the research objectives and outline the findings based on responses as obtained from both the questionnaire and the interview guides. The results are presented in both tabular and narrative forms.

4.3 Family Responsibilities and Its Effect on Persistence of Female Students

The intent of research objective one was to determine the extent to which family responsibilities affect the persistence of female students in distance education programmes. Responses of female students on family responsibilities and persistence were analysed presented in sub-sections 4.3.1 and 4.3.2 respectively. The result from the analysis of persistence (dependent variable) was used in presenting the analysis for all the other independent variables (financial responsibilities, social responsibilities and work demands).

4.3.1 Findings on Family Responsibilities

The study described the distribution of responses using descriptive statistics in the form of frequencies, percentages and means. The quantitative results were supported
with qualitative data where applicable. The female students responded to a number of items that portrayed the responsibilities they undertook within the family setup on a 5-point Likert scale with values of (5-Strongly Agree, 4-Agree, 3-Moderately Agree, 2-Disagree, 1-Strongly Disagree). Responses such as Strongly Agree and Agree were transformed to Agree while those in the categories such as Disagree and Strongly Disagree transformed to be in Disagree with the issues raised.

The means of the responses were used to further deduce the extent to which the respondents were in agreement with the statements under discussion. A calculated mean values between 4.21 and 5.00 for an item was interpreted as a very high agreement by respondents to a statement. 3.41-4.20 shows high rate of respondents’ agreement, 2.61-3.40 indicated that respondents’ moderately or partially agreed with the statement. Moreover, a low respondents’ agreement to a statement is represented with mean values between 1.81 and 2.60 while 1.00-1.80 meant a very low respondents’ agreement to a statement or an item (Batdi, 2017). However, to facilitate data analysis, the means of the responses were interpreted as follows:

1.00 - 2.60 = Disagree
2.61 - 3.40 = Moderately Agree
3.41 - 5.00 = Agree

The descriptive analysis of responses on family responsibilities is presented in the next section. The responses of the female students in relation to their family responsibilities are presented in Table 4.6.
Table 4.6: Family responsibilities as viewed by female students (n=377)

<table>
<thead>
<tr>
<th>Family Responsibilities</th>
<th>Agree</th>
<th>Moderately Agree</th>
<th>Disagree</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Caring for children.</td>
<td>286</td>
<td>75.9</td>
<td>35</td>
<td>9.3</td>
<td>56</td>
</tr>
<tr>
<td>Medical care to elderly</td>
<td>283</td>
<td>75.1</td>
<td>58</td>
<td>15.4</td>
<td>36</td>
</tr>
<tr>
<td>Cooking for family.</td>
<td>309</td>
<td>82</td>
<td>34</td>
<td>9.0</td>
<td>34</td>
</tr>
<tr>
<td>Laundering for the family.</td>
<td>272</td>
<td>72.1</td>
<td>42</td>
<td>11.1</td>
<td>63</td>
</tr>
<tr>
<td>Less time for husbands.</td>
<td>118</td>
<td>49.9</td>
<td>66</td>
<td>17.5</td>
<td>123</td>
</tr>
<tr>
<td>Expecting babies as student</td>
<td>253</td>
<td>67.1</td>
<td>44</td>
<td>11.7</td>
<td>80</td>
</tr>
<tr>
<td>Nursing babies as student</td>
<td>270</td>
<td>71.6</td>
<td>51</td>
<td>13.5</td>
<td>56</td>
</tr>
<tr>
<td>Responsibilities affect</td>
<td>309</td>
<td>82</td>
<td>38</td>
<td>10.1</td>
<td>30</td>
</tr>
<tr>
<td>studies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average Score</strong></td>
<td></td>
<td></td>
<td></td>
<td>3.9</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: Primary data

It can be observed from Table 4.6 that most of respondents agreed to the issues raised on family responsibilities as portrayed by the mean values of above 3.41 with only one item scoring a mean of 3.3 (Have less time for husbands). The respondents agreed (Mean=3.9, SD=1.2) that it was the duty of the female to care for children especially when they fall sick. This included taking them to seek medical care, ensuring they are well-fed and medications are properly taken. This could be really stressful when such situations coincide with times when they are supposed to attend to academic duties as lamented by one of the female respondents when she indicated that:

"When the child is sick, all my attention is directed to him so I forego all my academic practices till his health is restored. There had been few occasions when I had to leave class for home or miss lessons because my child suddenly got fever. It is really stressful to experience such situations.

On the issue of giving medical care to the elderly relatives of the family, 283(75.1%) of the participants agreed it was their responsibility (Mean=3.9, SD=1.2). This was
possibly the situation because in most African communities including Ghana, where the existence of homes for old and aged relatives is practically absent, it becomes the duty of close family members to care for their aged relatives. The call for duty as far as the care of elderly relatives was concerned fell squarely on the females as compared with males in most families even if they were in school. This confirmed the results as seen in Table 4.6 and the assertion made by Sha’aban as cited in McClusky (2017) that in most families, females were responsible for taking care of the unemployed, the elderly and the sick.

The study went further to seek the views of respondents on performing domestic roles such as cooking and doing laundry for the family. These responsibilities had mean values of 4.2(SD=1.0) and 3.9(SD=1.2) which indicated the respondents’ agreement that was their responsibility to do the cooking and washing for their families as further specified by 309(82%) and 272(72.1%) of the respondents respectively. Again, it can be noted from Table 4.6 that the respondents gave a confirmation to the fact that it was difficult to combine pregnancy and studying through the distance education mode. This was supported by 253(67.1%) of the respondents who agreed (Mean=3.7, SD=1.3) to this statement. In an attempt to probe further to find more reasons to this claim, one of the female students reiterated that:

Being pregnant and studying at the same time is really difficult. There are some of these days when you suffer from morning sickness and yet you need to attend face-to-face sessions and you sometimes have to leave class intermittently to take care of yourself. Apart from these, you also suffer from the psychological trauma of missing quizzes or end of semester examinations because your delivery date is due during these periods. If you are lucky to be in hospital close to the study centre, then the coordinator can arrange for you to take the examination at the hospital. If not then you must defer the semester after working so hard.
To find out the situation on the ground as far as nursing babies and being students were concerned, 270(71.6%) of the respondents agreed (Mean=3.9, SD=1.2) that it was a difficult task. The figures in Appendix IX depict one of such situations. This was further supported by the following comment from one of the female students that:

"I had to defer my studies because I could not combine studies with caring for the baby. This is because I could not study well as a first-time mother and working at the same time. When I try to study at dawn, the baby also wakes up and I had no choice but to attend to her and usually I ended up falling back to sleep. This was going to affect my academic performance negatively so had to stop the programme for a while to wean the baby."

A study centre coordinator also commented on this issue by adding that:

"It is really a difficult situation for some of these student mothers especially when they have to bring their kids during face-to-face sessions and examinations. Sometimes they lose concentration and stay out of the learning session to care for the babies, although some are fortunate to come along with relatives who help to care for the children. I think it is time the College hired some childcare professionals and create childcare facilities for study centres on demand basis. It will help create convenient environment for student mothers to study during the face-to-face sessions."

The concern raised by the study centre coordinator was timely and in support of a recent survey conducted by Clark and Hill (as cited in Snow, 2017) on Canadian university policy which revealed that, there was a modification in policies in most Canadian institutions. The authors found improvements in areas such as parental leave and regular day-care facilities for faculty members on campus A similar facility is also found at Kenyatta University under the management of the Department of Community Resource Management and Extension (Kenyatta University Newsletter, 2014). The baby day care centre admits infants between the ages of 3 months and 3 years while the child care unit takes care of children whose ages range between 3 and 6 years. These facilities provide quality day care services for staff and especially female students of the university. These female students have their babies well taken
care of so that they can fully attend to their academic work (Kenyatta University Newsletter, 2014). These policies could be adopted by distance education institutions in Ghana by making provision for baby relaxation centres for these student mothers.

Table 4.6 also shows that 309(82%) of the respondents affirmed the view that family responsibilities can interfere with their academic work with only 30(7.9%) disagreeing with this statement. The mean score for the responses of this item was 4.2(SD = 1.0). The implication is that combining family responsibilities and being a student on a distance education programme was a demanding task as noted by one of the female participants:

It is not easy at all, madam. You wake up early and sleep late. You prepare for work and come back home already exhausted to continue with cooking and taking care of other responsibilities. You get very tired as the day ends and just impossible to do any good academic work.

The assertion made by this interviewee is in support of the claims made by O’Brien and Hapgood (2012) which had suggested that mother’s “second shift” could be a cause of fatigue among females. In addition, the second shift occurs in situations when females take up roles such as childcare, housework and caring for elderly family members. This is further confirmed by a survey conducted in Canada by McMaster professors which reported that there were many instances where unequal sharing of responsibilities between men and women in relation to domestic duties and childcare still occur (Yates, 2014).

The above findings on family responsibilities were in tandem with the views of the proponents of the feminist standpoint theory which postulated that credible information could be generated when females share experiences as a group other than as individuals. It could be noticed from the findings that though the participants reported an increase in their family roles, it did not affect their persistence negatively
which seemed to be out of the usual norm. It can therefore be concluded that making females the subjects of studies like this one would allow researchers to gain the first-hand knowledge from the perspective of the females as indicated by Hartsock (2004) and van der Tuin (2016).

### 4.3.2 Analysis on Level of Persistence

As part of the quantitative aspect of the study and also to be able to use a regression analysis, objective one measured the level of persistence as pertained among the female students in distance education programmes. The information on persistence was derived from four indicators namely; confidence in re-enrolling, confidence in achieving educational goals, active participation in tutorials and group activities, support by family and friends. The female students were expected to respond to a number of items that portrayed their persistence on a 5-point Likert scale with values of (5-Strongly Agree, 4-Agree, 3-Moderately Agree, 2-Disagree, 1-Strongly Disagree). Responses such as Strongly Agree and Agree were transformed to Agree while those in the categories such as Disagree and Strongly Disagree transformed to be in Disagree with the issues raised.

For the purpose of analysis, the interpretation of the means were done within these real limits: a calculated mean values between 3.41 and 5.00 for an item was interpreted as an agreement by respondents to a statement or high level of persistence, 2.61-3.40 indicated that respondents’ moderately or partially agreed with the statement or a moderate level of persistence. Moreover, a low agreement or disagreement to a statement was represented with mean values between 1.00 and 2.60 which also indicated a low level persistence among female students (Batdi, 2017). In
addition, the responses obtained were calculated as a continuous score and used in a regression analysis against the indicators of the independent variable. The responses of the female students with regard to their views on persistence are as seen in Table 4.7.

Table 4.7: Persistence as viewed by female students (n=377)

<table>
<thead>
<tr>
<th>Persistence</th>
<th>Agree</th>
<th>Moderately Agree</th>
<th>Disagree</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confident in re-registering for the next semesters</td>
<td>329</td>
<td>87</td>
<td>24</td>
<td>6.4</td>
<td>24</td>
</tr>
<tr>
<td>No intention to change current university</td>
<td>234</td>
<td>62.1</td>
<td>35</td>
<td>9.3</td>
<td>108</td>
</tr>
<tr>
<td>Losing interest in academic work</td>
<td>177</td>
<td>54.9</td>
<td>50</td>
<td>13.3</td>
<td>120</td>
</tr>
<tr>
<td>Confident in completing studies within stipulated time</td>
<td>358</td>
<td>94.9</td>
<td>11</td>
<td>2.9</td>
<td>8</td>
</tr>
<tr>
<td>Participate in all quizzes and exams</td>
<td>291</td>
<td>77.2</td>
<td>34</td>
<td>9.0</td>
<td>52</td>
</tr>
<tr>
<td>Lateness for class meetings due to other duties</td>
<td>182</td>
<td>48.2</td>
<td>70</td>
<td>18.6</td>
<td>125</td>
</tr>
<tr>
<td>Inability to study very much</td>
<td>214</td>
<td>56.7</td>
<td>63</td>
<td>16.7</td>
<td>92</td>
</tr>
<tr>
<td>Absence due to personal reasons</td>
<td>225</td>
<td>59.6</td>
<td>57</td>
<td>15.1</td>
<td>95</td>
</tr>
<tr>
<td>Active participation in group work</td>
<td>263</td>
<td>69.7</td>
<td>68</td>
<td>18.0</td>
<td>46</td>
</tr>
<tr>
<td>Submit class assignment on time</td>
<td>302</td>
<td>80.1</td>
<td>48</td>
<td>12.7</td>
<td>27</td>
</tr>
<tr>
<td>Involvement in extracurricular activities (seminars and sports)</td>
<td>268</td>
<td>71.0</td>
<td>53</td>
<td>14.1</td>
<td>56</td>
</tr>
<tr>
<td>Enjoy support from family members</td>
<td>168</td>
<td>44.6</td>
<td>69</td>
<td>18.3</td>
<td>140</td>
</tr>
<tr>
<td>Enjoy support from friends</td>
<td>214</td>
<td>56.8</td>
<td>61</td>
<td>16.2</td>
<td>102</td>
</tr>
<tr>
<td>Quitting study would disappoint friends and family members</td>
<td>337</td>
<td>89.4</td>
<td>25</td>
<td>6.6</td>
<td>15</td>
</tr>
<tr>
<td>Honoured upon completion of study</td>
<td>283</td>
<td>75.1</td>
<td>36</td>
<td>9.5</td>
<td>58</td>
</tr>
</tbody>
</table>

Average Score: 3.8 1.2

Source: Primary data
It can be noted from Table 4.7 that the participants showed a high level of persistence as described by an average score mean score of 3.8 and SD of 1.2. An inspection on Table 4.7 shows that the female students had positive responses to most of the statements on persistence as portrayed by the mean values ranging from 4.7(SD=.71) to 3.1(SD=1.3). This meant that the respondents showed high to moderate levels of persistence. It can further be observed that 329 (87%) of the respondents were very optimistic about re-enrolling for the next semesters which was an indication that they were wishful to progress in their course of study. This registered a mean of 4.3(SD=.97) which is an indication that they showed a high level of persistence. One can also notice that with a mean value of 4.7(SD=.71), the participants showed a high level of persistence as seen in Table 4.7. This statement was equally supported by 358(94.6%) of the respondents which was an indication they were confident of achieving their educational goals.

Another issue worth taking note of was the fact that 337(89.4%) and 283(75.1%) respondents agreed that their family members and friends will be disappointed if they should quit their studies as they stand to receive to enjoy some honour upon completion cumulating to a mean values of 4.4(SD=.83) and 4.1(SD=1.6) respectively. It is however quick to note that the respondents claimed that they did not receive much support from both family members and friends as far as their level of persistence was concerned as these two statements had mean values of 3.1(SD=1.3) and 3.5(SD=1.3) respectively. The implication was that though the close relatives become happy with the achievements of the female students, they seemed to play little role to help them persist on their studies.
Research objective one of this study also required that effect of family responsibilities on persistence of female students on the distance education programmes was ascertained. In line with this objective a null hypothesis was formulated and tested as follows:

$H_{01}$: *Family responsibilities are not a statistically significant predictor of persistence of female students in distance education programmes at UCC and UEW in Ghana.*

To conduct significance testing, the scores on family responsibilities and persistence were both computed individually and a continuous score was obtained for each of the variables. The simple linear regression analysis was applied to test the effect of female students’ family responsibilities on their persistence in distance education programmes. The variant of the independent variable was placed in the model to determine the $R$-Square ($R^2$) and used to explain the amount of variability explained in the dependent variable (persistence) by the independent variable (family responsibilities). The regression $R$ indicated the relationship between the independent and the dependent variable, while the results from the report on the analysis of variance (ANOVA) further established the strength of the significance of the relationship between the variables understudy. The results obtained from the simple regression are as presented in Table 4.8.

<table>
<thead>
<tr>
<th>PREDICTOR</th>
<th>DV: PERSISTENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Responsibilities</td>
<td>R</td>
</tr>
<tr>
<td>Family Responsibilities</td>
<td>.177</td>
</tr>
</tbody>
</table>

**NOTE:** $p < .001$
Table 4.8 shows the analysis of the simple regression of female students’ family responsibilities as a predictor variable and persistence as the dependent variable. It can be seen from Table 4.8 that, $R$ at .177 with a $p$-value of .001, means there was a weak positive correlation or relationship between the predictor variable and the dependent variable. The implication is that despite the fact that there was some increase in level of difficulty in dealing with family responsibilities the persistence of female students increased as well. The R-Square ($R^2$) as portrayed in Table 4.8 indicates the proportion of the variance in the dependent variable which can be explained or predicted by the independent variable. As clearly seen in Table 4.8, the R-Square ($R^2$) is connoted by the value .031. This implied that family responsibilities explained only 3.1% variance in persistence (multiplying .031 by 100). It also meant that 96.9% of the variance unexplained can be attributed to other factors. The R-Square ($R^2$) also showed the effect size of .031. Applying Cohen’s (1994) standard on interpretation of effect size where, $r = .10$ (small effect), $r = .30$ (medium effect) and $r = .50$ (large effect), an effect size of .031 is an indication that family responsibilities had a small effect on persistence of female students on distance education programmes. This meant that family responsibilities had a minimal effect and explained only 3.1% of persistence of female students in distance education.

To test the level of significance of the relationship between family responsibilities and persistence, an ANOVA showing the sums of squares, the degree of freedom associated with each sum and the $F$-ratio are depicted in Table 4.9.
Table 4.9: ANOVA test on family responsibilities and persistence

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>533.425</td>
<td>1</td>
<td>533.425</td>
<td>12.107</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>16522.406</td>
<td>375</td>
<td>44.060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17055.830</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: p< .001

It is clear from Table 4.9 that the F (1, 376) =12.107 which was significant at p<.001, meant that the regression model can be used to significantly predict the extent to which family responsibilities affect persistence. In other words, family responsibilities were a predictor of persistence among female students on distance education programmes. It is therefore understandable to conclude that family responsibilities can positively determine the persistence of female students. Therefore the null hypothesis that stated that family responsibilities are not a statistically significant predictor of persistence of female students in distance education programmes at UCC and UEW in Ghana was rejected. This meant that increased family responsibilities would result in an improved level of persistence among female students in distance education programmes.

The study went further to find out the model parameters (beta values) and the significance of these values to the regression model by looking at the statistical coefficients of the predictor and the outcome variables using regression equation,

\[ Y = \alpha + \beta x_1 + \varepsilon \]  

[Equation (1.1)]

where Y is the predicted value of Persistence, \( \alpha \) = the predicted value of Persistence if \( x_1 \) is zero, \( \beta \) = effect in Persistence due to a unit of change in \( x_1 \), \( x_1 \) = independent variable (family responsibilities) and \( \varepsilon \) = other factors that influence Persistence but not noticed. The results are presented in Table 4.10
Table 4.10: Coefficients of family responsibilities and persistence

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>30.734</td>
<td>1.279</td>
<td>24.036</td>
<td>.000</td>
</tr>
<tr>
<td>FamilyRes</td>
<td>.155</td>
<td>.045</td>
<td>.177</td>
<td>3.479</td>
</tr>
</tbody>
</table>

NOTE: $p < .001$

It can be observed from Table 4.10 that, the “Constant”, which implied that the predicted value of persistence if family responsibilities is zero is 30.734. The regression weight (Beta) that indicates the amount of change in the outcome (persistence) associated with a unit change in the predictor (family responsibilities) is .155. The regression model was refined by replacing the beta values with the coefficients in the regression equation. Therefore substituting equation 1.1 and replacing $X$ and $Y$ with the variable names the model was seen as below:

$\text{Persistence} = \alpha + \beta (\text{family responsibilities}) + \varepsilon$  \hspace{1cm} [Equation 1.2]

Further substituting the coefficients into Equation 1.2, the result was obtained as:

$\text{Persistence} = 30.734 + .155 (\text{family responsibilities})$ \hspace{1cm} [Equation 1.3]

Then multiplying Equation 1.3 by a unit of family responsibilities to obtain the results as

$\text{Persistence} = 30.734 + .155 (1)$ \hspace{1cm} [Equation 1.4]

$\text{Persistence} = 30.889$

This meant for every unit (1) increase in family responsibilities with a beta value of .155, persistence was expected to increase by 30.889. With $p$-value of .001, it can be said that statistically there was a significant effect of family responsibilities on persistence of female students. In other words, family responsibilities are a significant predictor of persistence of female students as seen in the equation.
The implication of this finding is that despite the fact that there was some increase in the level of dealing with family responsibilities, the persistence of female students increased as well. The finding on family responsibilities has also established that female students on distance education programme in Ghana experienced some difficulties in combining family responsibilities and with their persistence on the course of study. This finding is in agreement with the study conducted by Abuya, Ngware, Mutisya and Nyario (2016) in Kenya which found that females faced a lot of obstacles as they try to combine school with household chores and looking after younger siblings. They are usually overwhelmed with domestic and family demands (Eboiyehi, Fayomi & Eboiyehi, 2016). But in contrast with the findings of Abuya et al. (2016) which indicated that attendance to school is negatively affected by family responsibilities, female students showed some persistence towards their education, though the magnitude of the effect of family responsibilities on persistence was minimal. An interview with one of the study centre coordinators revealed that:

Though most female students have the burden of family roles they are still pushing on to finish their course of study. This situation may have come from the fact that the Ghanaian economy and the job market demands higher academic and professional qualifications. These female students have no choice but to work harder to better themselves financially and professionally.

This was unanimously confirmed by a female student adding that, “I am determined to finish the programme at all cost since I know I may find a better job after graduating successfully” she concluded. This confirms the assertion made by Parker (2015) that many women have now decided to choose the joy and fulfilment that comes with a successful career. It can be deduced from the above discussion that though the study reported a weak positive correlation ($R = .177, p = .001$,) between family responsibilities and persistence, most female students were determined to
enjoy a better and fulfilling career and distance education provides the channel for their aims to be achieved as opined by Marsman (2014) and Kwapong (2010).

The findings on family responsibilities were also in tandem with assertion made by Richko (2016) that despite the demands of contemporary society, the desire for bearing and caring for children still remains among many women. Majority of the respondents in the study confirmed they have roles to play in the caring and maintenance of children. Although many of the female students involved in the study were single after attaining the traditional marriage age (Sweetman 2003), there were indications that they were involved in other forms of caregiving activities. This further agreed with the findings of Bianchi and Milkie (2010) and Ogletree (2014) that involvement of men with their children is on the increase, subsequently reducing the burden on women as far as housework and childcare were concerned. As strongly reiterated by Ogletree (2014), most mothers still cling to the control of caring for children thereby increasing their involvement with the children in comparison with fathers as one female student indicated:

Though my husband is ready to help in caring for my child as I attend class I feel he has other responsibilities that may not allow him to give full attention to the child. Moreover, there were instances when I had received calls from home when the child is not too well. My attention becomes distracted on such occasions so I prefer bringing him along with me for face-to-face sessions.

Furthermore, the finding on family responsibilities could however be related to the fact that some fathers are playing a good role in the childcare area. This might have resulted in some form of relief to the female student which was confirmed by the fact that though family responsibilities increased, their persistence also increased as well. The figure at Appendix X shows a good example of the help some female students enjoy from their partners during face-to-face session which was likely to increase
their persistence on the distance education programmes as their family responsibilities also increased.

4.4 Financial Responsibilities and Their Effect on Persistence of Female Students

The second objective of the study aimed at determining the extent to which financial roles of female students affect their persistence in distance education programmes. The first part of this objective was to find out the general views of the female students concerning their financial responsibilities. The results that were obtained from quantitative analysis were supported with qualitative data from the interviews. The female students were made to respond to a number of related items on financial responsibilities on a 5 point Likert scale with (5-Very true of me, 4-True of me, 3-Somehow true of me, 2-Not true of me, 1-Not all true of me). For purpose of analysis of responses, the options “Very true of me” and “True of me” were collapsed into True of me and “Not true of me and “Not all true of me” into Not true of me.

The means of the responses were further used to deduce the extent to which the respondents were in agreement with the statements under discussion. Calculated mean values between 3.41 and 5.00 for an item was interpreted as an agreement by respondents to a statement, 2.61-3.40 indicated that respondents’ moderately or partially agreed with the statement. Moreover, a low agreement or disagreement to a statement was represented with mean values between 1.00 and 2.60 (Batdi, 2017). The responses of the female students with regards to their financial responsibilities are presented in Table 4.11.
Table 4.11: Financial responsibilities as viewed by female students (n=377)

<table>
<thead>
<tr>
<th>Financial Responsibilities</th>
<th>True of me</th>
<th>Somehow true of me</th>
<th>Not true of me</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial needs of children</td>
<td>241</td>
<td>63.9</td>
<td>71</td>
<td>18.8</td>
<td>65</td>
</tr>
<tr>
<td>Financial needs relatives</td>
<td>211</td>
<td>55.9</td>
<td>90</td>
<td>23.9</td>
<td>76</td>
</tr>
<tr>
<td>Inability to meet academic needs.</td>
<td>222</td>
<td>58.9</td>
<td>82</td>
<td>21.8</td>
<td>73</td>
</tr>
<tr>
<td>Families pay fees.</td>
<td>117</td>
<td>31.0</td>
<td>89</td>
<td>23.6</td>
<td>170</td>
</tr>
<tr>
<td>Not responsible for paying fees.</td>
<td>109</td>
<td>28.9</td>
<td>72</td>
<td>19.1</td>
<td>196</td>
</tr>
<tr>
<td>Access Students’ Loan Fund.</td>
<td>104</td>
<td>27.6</td>
<td>47</td>
<td>2.5</td>
<td>226</td>
</tr>
<tr>
<td>Support from employers.</td>
<td>102</td>
<td>27.1</td>
<td>70</td>
<td>18.6</td>
<td>205</td>
</tr>
<tr>
<td>Loans from banks</td>
<td>158</td>
<td>41.9</td>
<td>58</td>
<td>15.4</td>
<td>161</td>
</tr>
<tr>
<td>Engage in more than one job</td>
<td>238</td>
<td>63.1</td>
<td>58</td>
<td>15.4</td>
<td>81</td>
</tr>
<tr>
<td><strong>Average Score</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data

As shown in Table 4.11, provision of the needs of children and relatives were highly scored with mean values of 3.8(SD=1.3) and 3.5(SD=1.2) respectively and 241(63.9%) and 211(55.9%) of the respondents also confirming these statements. This meant that the needs of close relations were of priority to the female students despite the fact that they had some academic needs to attend to as well. This finding is in support of the study by Reay (2003) who found that females, especially those who had children, were held usually between the need to meet family responsibilities and wanting to study. Sha’aban as cited in McClusky (2017) also opined that it was the role of families to cooperate when it comes to the maintenance of the economic
welfare of the family as depicted among the female students in this study. As complemented by Riel (2011) individuals are most likely to lose personal honour and dignity if they do not provide the needs of the family.

It can also be observed from Table 4.11 that respondents agreed (Mean=3.6, SD=1.3) to the statement that they face problems in trying to raise enough funds for their academic needs with a corresponding 222(58.9%) frequency count. This finding confirmed a survey conducted by the Higher Education Research Institute in 2002 in the United States which found that 65.3% of the freshmen have either “some concern” or “major concerns” about not having enough money to complete their college degrees (Nonis & Hudson, 2006, p. 151). Despite this handicap, the respondents disagreed (Mean=2.9, SD=1.7) with the statement that their families supported them in paying for the cost of their academic bills.

A further confirmation of this stand taken by respondents can be noticed from Table 4.11 when they again disagreed (Mean=2.5, SD=1.7) with the item “Female students are not solely responsible for paying their fees”. Close to half of the respondents, 196(52%) of the participants confirmed this, though 109(28.9%) of the respondents were in disagreement which meant that they had some form of support from others. The study went further to find out if the female students have access to Students Loan Fund or get financial support from their places of work. The results as seen from Table 4.11 show that the respondents were in disagreement (Mean=2.5, SD=1.4) of this statement. This showed that 226(59.9%) of the respondents claimed that they did not receive any form of financial help from the Student Loan Fund. Similarly, about 54.4% representing 205 of the respondents claimed they do not have any financial help from their places of work.
The picture as seen here is in line with the study conducted in Uganda by Jansson, Bukuluki, Hojer (2017) which found most female students regardless of their background were more dependent upon private or self-sponsorship in paying for their academic bills in higher institutions as compared with male students who accessed public sponsorship to a greater degree. Terriquez and Gurantz (2015) noted in their study among young adults that accessibility to financial aid played a key role in shaping the persistence decisions of the respondents. The results as displayed in Table 4.11 showed that about half of the respondents claimed that they did not get any financial support from the families, Students Loan Fund nor their employers. So the question was how were they able to meet their financial needs as students on distance education programme? This question was reliably answered when 236(63.1%) of the respondents agreed (Mean=3.7, SD=1.3) that they engaged in other businesses and jobs to raise some income to support themselves. This confirms the findings by Adu-Yeboah (2011) which found that most female students adopt personalised strategies to help them progress successfully through their education.

The study further asked respondents to indicate the ranges of their monthly earning using the Item “My monthly earnings range between”. The results showed that 252 (66.8%) of the respondents clustered in the lowest monthly earnings of between 100-300 Ghana cedis. In addition, more enquiries were made on how tuition fees were paid by the respondents with the Item “Which of the following best describes how your fee for this course was paid?” The result indicates that 171 representing 45.4% of the respondents admitted they were self-sponsoring their education. This was followed by 94(24.9%) who received financial support from parents and siblings. It is worth mentioning that only 21(5.6%) claimed that they enjoyed some form of scholarships and student loans to help pay their tuition fees.
These results are in line with the study of Arthur-Nyarko (2017) which found that one of the learner characteristics of distance education students was that most of them earned low wages and were self-sponsoring their education. It is also in agreement with the argument made by Hill (2016) that 53% of females find it more difficult to raise funds and also pay higher in terms of their student debts than they can conveniently afford as compared with 39% of males. The implication is that with this kind of financial background female students were likely to face challenges in raising the required tuition fees and other academic related needs. This may call for the need for administrators of distance education institutions creating or restructuring modes used in paying fees available for students to reduce the effect this challenge might have on the persistence of female students in particular and male students in general.

During an interview session with one of the coordinators on how he assessed the financial responsibilities of the female students in relation to their persistence on the programme, he indicated that:

There are some occasions when some of them have come to seek financial help from me or come to plead with me to write to the College for extension of deadlines for payment. Due to the delays in the administration of the Student Loan Fund and the interest rate that are accumulated upon completion of programme, most of the female students are reluctant to access this facility. Some resort to help from relations and in doing other petty business to raise income. I must stress that there had been some extreme cases when some female students did not report back for the semester because of their inability to fulfil the financial commitment.

The interaction of economic and cultural factors could probably determine the level of students’ persistence in a college (Burrus et al., 2013). As established in this study and supported by Coleman as cited in Burrus et al. (2013), a student’s financial responsibilities could be an important factor that counts towards the persistence towards degree attainment. This is based on the fact that financial responsibilities directly affect the provision of resources at home and indirectly influences the level of
supply of the needed investments necessary to succeed in college. To further probe into this assertion during an interview with a female student, she admitted that:

It is really difficult trying to make ends meet with the meagre income and being a student on the distance education as well. The problem is that you usually need to forego some basic comforts of life to be able to save towards your education. We incur cost in travelling, accommodation and feeding during face-to-face sessions, which is not part of the fees paid. Sometimes I stay out if my finances are not too good or I borrow from a relative if it demands that I must travel at all cost especially during examinations.

In addition to the above descriptive analysis, research objective two was also intended to determine the extent to which financial responsibilities affect the persistence of female student in distance education programme. In attempt to answer this part of the objective, a null hypothesis was derived as indicated below:

\[ \text{Ho}_2: \text{Financial responsibilities are not a statistically significant predictor of persistence of female students in distance education programmes at UCC and UEW in Ghana.} \]

The scores on financial responsibilities and persistence were both computed individually and a continuous score was obtained for each of the variables and used to conduct a significance testing between the variables. The effect size was determined using the coefficient of determination \( (R^2) \) which also indicated the amount of variance in persistence of female students in distance education explained by financial responsibilities. The \( R^2 \) showed the extent to which the two variables varied in a systematic way. The simple linear regression analysis was applied to test the effect of female students’ financial responsibilities on their persistence in distance education programmes. The variant of the independent variable was placed in the model to determine the \( R^2 \) and used to explain the amount of variability explained in the dependent variable (persistence) by the independent variable (financial responsibilities). The R indicated the relationship between the independent and the
dependent variable, while the results from the ANOVA further established the strength of the significance of the relationship between the variables under study. The results as obtained from the simple linear regression are presented in Table 4.12.

**Table 4.12: Simple regression analysis of financial responsibilities and persistence**

<table>
<thead>
<tr>
<th>PREDICTOR</th>
<th>R</th>
<th>R-Square (R^2)</th>
<th>P - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Responsibilities</td>
<td>.220</td>
<td>.049</td>
<td>.000</td>
</tr>
</tbody>
</table>

**NOTE:** p < .001

Table 4.12 depicts the results of the simple regression of financial responsibilities as a predictor variable and persistence as the dependent variable. It can be observed from Table 4.12 that, R at .220 with a p-value of .001, implied there was a weak positive correlation or relationship between the predictor variable and the dependent variable. This result indicates that as financial responsibilities of female students increased their level of persistence also increased as well. The R-Square (R^2) as portrayed in Table 4.12 indicated the proportion of the variance in the dependent variable which can be explained or predicted by the independent variable. As clearly seen in Table 4.12, the value for R-Square (R^2) was .049. This implied that financial responsibilities explained close to 5% variance in persistence (multiplying .049 by 100). It also meant that about 95% of the variance not explained can be as a result of other factors. The R-Square (R^2) also showed the effect size of .049. Applying Cohen’s (1994) standard on interpretation of effect size where, r = .10 (small effect), r = .30 (medium effect) and r = .50 (large effect), an effect size of .049 is an indication that financial responsibilities had a small but significant effect on persistence of female students on distance education programmes.
To further confirm how significant the relationship between financial responsibilities and persistence can be used to predict an outcome, a report on the analysis of variance (ANOVA) showing the sums of squares, the degree of freedom associated with each sum and the F-ratio are reported in Table 4.13.

Table 4.13: ANOVA test on financial responsibilities and persistence

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>827.969</td>
<td>1</td>
<td>827.969</td>
<td>19.133</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>16227.86</td>
<td>375</td>
<td>43.274</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17055.830</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: p < .001

As it can be noted in Table 4.13, the F(1, 376)=19.133 which was significant at p < .001, meant that the regression model can be used to significantly predict the extent to which financial responsibilities affected persistence. In other words, at an effect size of .049, financial responsibilities was a predictor of the level of persistence among female students on distance education programmes. Based on this result, the null hypothesis which indicated that financial responsibilities are not a statistically significant predictor of persistence of female students in distance education programmes at UCC and UEW in Ghana was rejected. It was understandable therefore, to conclude that financial responsibilities can positively determine the persistence of female students.

The study went further to find out the model parameters (beta values) and the significance of these values to the regression model by looking at the coefficients of the predictor and the outcome variables using regression equation,

\[ Y = \alpha + \beta x_1 + \epsilon \]  

[Equation 2.1]
where Y is the predicted value of Persistence, α = the predicted value of Persistence if 
\( x_1 \) is zero, β = effect in Persistence due to a unit of change in \( x_1 \), \( x_1 \) = independent variable (financial responsibilities) and \( \varepsilon \) = other factors that influence Persistence but not observed. The results are presented in Table 4.14.

### Table 4.14: Coefficients of financial responsibilities and persistence

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>28.350</td>
<td>1.562</td>
<td>18.147</td>
<td>.000</td>
</tr>
<tr>
<td>Financial Resp.</td>
<td>.230</td>
<td>.053</td>
<td>.220</td>
<td>4.374</td>
</tr>
</tbody>
</table>

**NOTE:** \( p < .001 \)

From Table 4.14 one can notice that the “Constant”, which implied that the predicted value of persistence if financial responsibilities is zero is 28.350. The regression weight (Beta) that indicates the amount of change in the outcome (persistence) associated with a unit change in the predictor (financial responsibilities) is .230. With the guarantee that the model has some ability to predict persistence of female students, the regression model was refined by replacing the beta values with the coefficients in the regression equation. To calculate for persistence, equation 2.1 was substituted by replacing X and Y with the variable names so that the model was seen as below:

\[
\text{Persistence} = \alpha + \beta (\text{financial responsibilities}) + \varepsilon
\]

[Equation 2.2]

In addition, the coefficients were substituted in Equation 2.2 as:

\[
\text{Persistence} = 28.350 + .230 (1)
\]

[Equation 2.3]

Multiplying Equation 2.3 by a unit of financial responsibilities to obtain the results as:

\[
\text{Persistence} = 28.350 + .230 (1)
\]

[Equation 2.4]

\[
\text{Persistence} = 28.580
\]
This meant at .230 (β =.230), a unit (1) increase in financial responsibilities, persistence was expected to yield a persistence of 28.580. With p-value of .001, it can be mentioned that there was a statistical significant effect of financial responsibilities on persistence of female students.

The foregoing results implied that an increase in the financial responsibilities of the female students would increase their level of persistence as seen in the regression model. In a reverse manner, a decrease in the financial responsibilities of the female students may lead to a decrease in their agility to be persistent on the course of study. The findings as established is in line with the study by Paulsen and St. John's (2002) which found that there was an association between financial responsibilities and persistence in higher education, but as revealed in this current study, Paulsen and St. John also had indicated the presence of several other significant interactional factors. Again, comments by Goldrick-Rab (2016) had indicated that though students may experience financial roles differently, financial concerns can exert serious impact on students’ access to college and persistence towards attainment of degrees. As it can be noted in this study, participants had confirmed they experienced some financial difficulties but in contrast with the assertion made by Goldrick-Rab (2016), they seem determined to go against the odds to persist on their programme.

The finding from the simple regression analysis also supports the study by Nielson (2015) which found that the women perceived their persistence in higher education in terms of job-seeking opportunity and channel for self-development. As reiterated by Nielson (2015), majority of the participants confirmed that their persistence was based on the belief that attaining a higher degree would help to break down structural
barriers towards getting better jobs as most of the participants were in low-wage jobs and insecure occupations. This assertion was confirmed by a female student during an interview session who indicated that, “Now that they have placed embargo on jobs, the private sector is taking advantage of us by paying very less for our services, sometime to a tune of Gh200.00 per month”. The finding on financial responsibilities seemed to disagree with assertion made by Khattak (2013) that most women who participated and succeeded in higher education were from the elite and the upper middle classes who financially advantaged. It can be concluded that though other factors may play a role in determining the persistence of female students, the result from the study has established that financial responsibilities can positively affect the persistence of female students on distance education programmes.

4.5 Social Responsibilities and Its Effect on Persistence of Female Students

The aim of the third research objective of this study was to establish the extent to which social responsibilities affect the persistence of female students in distance education programmes. The first part of this objective sought to find out the general opinions of the female students concerning their social responsibilities as members of the larger communities where they might belong to. The results obtained from the qualitative data were used to support the quantitative analysis where applicable. The female students were made to respond to a number of related items on social responsibilities on a 5 point Likert scale with (5-Very Often, 4-Often, 3-Sometimes, 2-Seldom, 1-Never). The options “Very Often” and “Often” were transformed into Often and “Seldom” and “Never” into Seldom to facilitate analysis of responses.
The means of the responses were used to further deduce the extent to which the respondents were in agreement with the statements under discussion. A calculated mean values between 3.41 and 5.00 for an item was interpreted as an agreement by respondents to a statement, 2.61-3.40 indicated that respondents moderately or partially agreed with the statement. Moreover, a low respondents’ agreement also considered as a disagreement to a statement was represented with mean values of 1.00 and 2.60 (Batdi, 2017). The responses of the female students with regard to their social responsibilities are presented in Table 4.15.

Table 4.15: Social responsibilities as viewed by female students (n=377)

<table>
<thead>
<tr>
<th>Participation in Social Roles</th>
<th>Often n</th>
<th>%</th>
<th>Sometimes n</th>
<th>%</th>
<th>Seldom n</th>
<th>%</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriage ceremonies</td>
<td>114</td>
<td>30.2</td>
<td>221</td>
<td>58.6</td>
<td>42</td>
<td>11.1</td>
<td>3.3</td>
<td>.95</td>
</tr>
<tr>
<td>Funeral ceremonies</td>
<td>115</td>
<td>30.5</td>
<td>213</td>
<td>56.5</td>
<td>49</td>
<td>13.0</td>
<td>3.2</td>
<td>.95</td>
</tr>
<tr>
<td>Naming ceremonies</td>
<td>108</td>
<td>28.7</td>
<td>213</td>
<td>56.5</td>
<td>56</td>
<td>14.8</td>
<td>3.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Local festivals</td>
<td>68</td>
<td>18.0</td>
<td>178</td>
<td>47.2</td>
<td>131</td>
<td>34.8</td>
<td>2.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Traditional or political leadership Church</td>
<td>48</td>
<td>12.8</td>
<td>135</td>
<td>35.8</td>
<td>194</td>
<td>51.4</td>
<td>2.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Forego studies to perform roles</td>
<td>145</td>
<td>38.5</td>
<td>177</td>
<td>46.9</td>
<td>54</td>
<td>14.4</td>
<td>3.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Average Score</td>
<td>3.1</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data

A general observation made from Table 4.15 shows that most of the respondents indicated that they partially or sometimes take active roles in the social responsibilities in their communities with mean values ranging between 2.3 lower bound and 3.4 in the upper bound. However, some of the statements were worth mentioning. For instance, one can notice from Table 4.15 that at least 114 (30.2%) of
the respondents moderately agreed (Mean=3.3, SD=.95) that they often participated in the organisation of marriage ceremonies. Another 115 respondents representing 30.5% indicated that they were involved in funeral celebrations while 108(28.7%) took part in outdooring and naming ceremonies with mean values of 3.2(SD=.95) and 3.2(SD=1.0) respectively. The findings as seen here can be related to the age and marital status of the respondents in this study. It was noticed from the demographic characteristics displayed in Table 4.1 that majority of the participants were single and traditionally, social roles such as marriage, funeral and naming ceremonies are undertaken by women who are married and advanced in age. This is further supported by Sheldon (2016) who asserted that most communities in Africa have a higher prevalence of matrilineal descent which sometimes placed a woman and her female relations at the centre of kinship and family issues.

It can further be noticed from the Table 4.15 that most female students were actively involved in religious activities (Mean=3.5, SD=1.2) but did not take part in traditional and political leadership (Mean=2.3, SD=1.2) as confirmed by 194(51.4%) and 187(49.9%) of the respondents respectively. Probing further on this, some of the female students commented that, “The church place is considered a holy place and the activities in the church are not associated with sin and therefore most husbands encourage their wives to take up responsibilities in the church,” she concluded. Another female student interviewee added that, “It is about how the church does its activities that make women willing to take up positions in the church”. This finding confirms the assertion made by Kosomo (2010) that though religious roles are complementary duties of both men and women, most women play roles as singing, leading in prayers and in maintenance of religious values.
On the issue of low responses with regard to participation in traditional and political leadership in their communities, a female student had this to say:

In fact, personally I am not a fun of politics. With issues regarding women’s absence in political portfolios, our culture does not encourage female to take up certain leadership roles as men do, until recently when females are being empowered to do so but the habit has already been formed. In fact, I have not sighted a woman in this community vying for even an assembly member’s position, but when it comes to campaigning they play active role in it.

The researcher further inquired about her opinion on if she was encouraged and supported to take up leadership roles and she added that:

Oh yes, but then to be able to come into the limelight you should be able to start from somewhere before you would be able to exhibit qualities for such responsibilities. Within your community you can organise programmes or activities that would help the community, with that you are being sighted from afar. So when the position comes up and you offer yourself, you are already known that you are capable of handling such position because you have handled other smaller positions.

The above findings support the study by Acheampong and Dinye (2015) in Ghana which revealed that there was a low participation of women in community leadership roles as only 27% out of the 353 women studied were members of Community Based Organisations. Again, as found by Kasomo (2010) using a qualitative study among group of women in Kenya, the participants confirmed they played important roles in their churches as leaders, leading in song ministration and prayers as well as maintaining church values as portrayed in this study. The next section tried to find out if social responsibilities had any effect on persistence of female students.

As seen in the trend of analysis of objectives one and two, the intent of research objective three was to establish the extent to which social responsibilities affected the persistence of female students in distance education programmes. To calculate for the effect, a null hypothesis was formulated and tested as follows:
Ho3: Social responsibilities do not make a statistically significant contribution in predicting persistence of female students in distance education programmes at UCC and UEW in Ghana.

The scores on social responsibilities and persistence were both computed individually and a continuous score was obtained for each of the variables. The effect was determined using the coefficient of determination ($R^2$) which also indicated the amount of variance in persistence of female students in distance education explained by social responsibilities. The $R^2$ further showed the extent to which the two variables varied in a systematic way.

A simple linear regression analysis was applied to test the effect of social responsibilities on persistence of female students in distance education programmes. The variant of the independent variable was placed in the model to determine the $R$-Square and used to explain the amount of variability explained in the dependent variable (persistence) by the independent variable (social responsibilities). The R indicated the relationship between the independent and the dependent variable, while the results from the ANOVA further established the strength of the significance of the relationship between the variables understudy. Table 4.16 reports the results as obtained from the simple linear regression on social responsibilities and persistence.

Table 4.16: Simple regression on social responsibilities and persistence

<table>
<thead>
<tr>
<th>PREDICTOR</th>
<th>R</th>
<th>R-Square ($R^2$)</th>
<th>P - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Responsibilities</td>
<td>.003</td>
<td>.000</td>
<td>.959</td>
</tr>
</tbody>
</table>

**NOTE:** $p < .001$
Table 4.1 displays the results of the simple regression of social responsibilities of female students as predictor variable and persistence as dependent variable. It can be also noticed from Table 4.1 that R reported as .003 with a p-value of .959 which is higher than the significance level of .001 ($p = .959 > .001$). This meant that there was no significant relationship between the predictor variable (social responsibilities) and the dependent variable (persistence). In other words, social responsibilities are not making any significant contribution in predicting persistence of female students. To further confirm this result, it can be noted from Table 4.1 that the $R^2$ which can be used to measure the effect size and calculate the value for variability of social responsibilities and persistence is .000. The implication is that social responsibilities had no effect on persistence of female students. To further verify the results as produced by regression analysis, the study reported the results obtained from ANOVA which show the sums of squares and the F-ratio as presented in Table 4.17.

**Table 4.17: ANOVA test on social responsibilities and persistence**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>.120</td>
<td>1</td>
<td>.120</td>
<td>.003</td>
<td>.959</td>
</tr>
<tr>
<td>Residual</td>
<td>17055.711</td>
<td>375</td>
<td>45.482</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17055.830</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It can be observed that there was a very minimal change as seen in Table 4.17 ($F 1, 376) = .003, p=.959 >.01$) which was not significant enough to make social responsibilities make any substantial contribution in the prediction of the dependent variable (persistence). With p-value of social responsibilities being greater than significance level (.001), the study failed to reject the null hypothesis that social responsibilities do not make statistically significant contribution in predicting
The persistence of female students in distance education programmes at UCC and UEW in Ghana. This meant that social responsibilities of female students did not affect their successful persistence in distance education programmes.

The content analysis of the qualitative data revealed that some female students believed that taking part in these activities took a toll on their time. However, they were quick to add that participating in these activities also helped to build their self-esteem and confidence in the society. It helped to create the feeling of belongingness and created opportunity for others to come to their aid when the situation arose. As reiterated by one of the study centre coordinators:

Ceremonies such as naming, marriage and funerals are very important occasions in this community. As a woman you have no excuse to stay away during such occasions and most female students do miss lectures a day or two to participate in the organisation of such activities.

Again, separate interviews with three of the female students helped to throw more light on how they managed their social responsibilities to reduce its effect on their persistence as students in distance education programmes. The first female interviewee commenting on this issue stated that:

You know with the modules you read ahead, so personally if I think that I understand the topics I may decide to boycott that particular class and attend the social function. But this might not always be the case because there might be a point that makes attending face-to-face very relevant, so you have to schedule with your partner to attend the social function on your behalf. With the family and friends normally what I do is that I ask my sister to represent me.

To add to the above, the second female interviewee indicated that:

In fact, it is really a serious issue. You know when it is your close friends or relatives you cannot forgo supporting them in their event, because if it was yours she wouldn’t stay away. I think it is good we study but it is also good we attend these activities because we are living in the society not on an island. When it coincides with examination, I seek apologies and ask other friends and relatives to play my roles.
The third female interviewee concluded the discussion on this issue by observing that:

> When I see that a particular marriage ceremony is not all that important to me I boycott it and attend my lectures because my parents are already aware that am in school. When I am not there they know what they are going to tell the family members. However, there have been few occasions when I had absented myself from lectures to participate in such ceremonies.

It can be observed from the above narratives that though the respondents admitted they have social responsibilities, they absented themselves on many of such occasions in favour of their studies or sought the support of other relatives to take up such responsibilities. In this context, the finding is in disagreement with Sheldon (2016) who reiterated the women are at the centre when it comes to upholding and observation of family celebrations. As stated by Al Oraimi (2011), “despite educational and job-related achievements, women still play traditional roles in a complementary manner” (p. 85).

To complement this discussion, Balgabayeva et al. (2016) had mentioned that “still women almost everywhere were excluded from certain important economic or social activities; their social roles were associated with a smaller set of powers and prerogatives than men's social roles” (p. 5276). In other words, most women were affected by what Aisenburg and Harrington as cited in Williams (2017) called the marriage plot which made them assume that they should have greater family responsibility in the home, while men focused on other public and social careers. As established in this study, social responsibilities of female students did not have any effect on the persistence of female students in distance education programmes as they got the opportunity to stay away and had others playing roles they were supposed to undertake.
4.6 Establishing the Effect of Work Demands on Persistence of Female Students

The purpose of the last objective was to establish the extent to which work-related demands affected the persistence of female students in distance education. The objective was answered in two parts. The first part sought the opinions of the female students on work-related demands and their responses were analysed and presented using descriptives. The second part of the objective was answered by applying the simple linear regression to test the effect of work demands on persistence of female students in distance education programmes. The quantitative results from the questionnaires were supported with the qualitative data obtained from the interviews.

The female students were expected to respond to a number of items that portrayed some work-related demands on a 5-point Likert scale with values of (5-Strongly Agree, 4-Agree, 3-Moderately Agree, 2-Disagree, 1-Strongly Disagree). Responses such as Strongly Agree and Agree were grouped as Agree while those in the categories such as Disagree and Strongly Disagree were considered to be in Disagree with the issues raised. The means of the responses were further used to deduce the extent to which respondents were in agreement with the statements under discussion. Calculated mean values between 3.41 and 5.00 for an item was interpreted as an agreement by respondents to a statement, 2.61-3.40 indicated that respondents moderately or partially agreed with the statement. Moreover, a low respondents’ agreement also considered as a disagreement to a statement was represented with mean values between 1.00 and 2.60 (Batdi, 2017). The section started by looking at the occupational status of respondents in terms of the institutions where they worked, the number of days at work and number of working hours within a working day. The results are presented in Table 4.18.
Table 4.18: Occupational status of respondents

<table>
<thead>
<tr>
<th>Number of respondents</th>
<th>Government employed</th>
<th>Private employed</th>
<th>Self-employed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>3-4 days</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
</tr>
<tr>
<td>5-6 days</td>
<td>65</td>
<td>24.1</td>
<td>165</td>
</tr>
<tr>
<td>All 7 days</td>
<td>19</td>
<td>27.9</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of working hours in a day</th>
<th>Government employed</th>
<th>Private employed</th>
<th>Self-employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 hours</td>
<td>2</td>
<td>40.0</td>
<td>1</td>
</tr>
<tr>
<td>2-3 hours</td>
<td>2</td>
<td>22.2</td>
<td>1</td>
</tr>
<tr>
<td>4-5 hours</td>
<td>4</td>
<td>33.3</td>
<td>5</td>
</tr>
<tr>
<td>6-7 hours</td>
<td>34</td>
<td>30.9</td>
<td>43</td>
</tr>
<tr>
<td>8 hours and above</td>
<td>41</td>
<td>18.5</td>
<td>136</td>
</tr>
</tbody>
</table>

Source: Primary data

The result concentrated on three categories of occupational status of the respondents which included those working in governmental institutions, private organisation and those who were self-employed. As portrayed in Table 4.18, 193 (51.2%) of the respondents worked in private institutions. Again, those who experienced greater number of working days of more than 5 days within the week were those working with the private organisations. As noted in Table 4.18, respondents working for private organisations were the ones who admitted experiencing higher intensity of working hours with 136 (61.3%) of respondents saying they were working for more than eight hours in a day. This finding agrees with the assertion by St. John which that noted any positive effects that were to be enjoyed by working students might be weakened if the wages they made failed to match their cost of living thereby compelling these students to work an excessive number of hours (as cited in Horn & Reinert, 2014).
In a situation where most students earned low wages, then it would be uncommon to find them working longer hours to be able to enough income to support their needs. This is the picture the current study is bringing home to the attention of administrators and management of distance education institutions on this peculiar characteristic of female students who accessed the programmes and which could be factored into policies to improve persistence of students. The study further sought for the opinions of the female students as related to their work demands are presented in Table 4.19.

**Table 4.19: Work demands as viewed by female students (n=377)**

<table>
<thead>
<tr>
<th>Work Demands</th>
<th>Agree</th>
<th>Moderately Agree</th>
<th>Disagree</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Work for self-support</td>
<td>348</td>
<td>92.3</td>
<td>20</td>
<td>5.3</td>
<td>9</td>
</tr>
<tr>
<td>Work to support families</td>
<td>307</td>
<td>81.4</td>
<td>52</td>
<td>13.8</td>
<td>18</td>
</tr>
<tr>
<td>For promotion at workplace</td>
<td>298</td>
<td>79</td>
<td>31</td>
<td>8.2</td>
<td>48</td>
</tr>
<tr>
<td>To build self-confidence</td>
<td>313</td>
<td>83.1</td>
<td>38</td>
<td>10.1</td>
<td>26</td>
</tr>
<tr>
<td>As job requirement</td>
<td>312</td>
<td>82.8</td>
<td>43</td>
<td>11.4</td>
<td>22</td>
</tr>
<tr>
<td>Carry work to do at home</td>
<td>290</td>
<td>76.9</td>
<td>56</td>
<td>14.9</td>
<td>31</td>
</tr>
<tr>
<td>Work experience support studies</td>
<td>229</td>
<td>60.7</td>
<td>65</td>
<td>17.2</td>
<td>83</td>
</tr>
<tr>
<td>Working and studying is difficult</td>
<td>256</td>
<td>67.9</td>
<td>72</td>
<td>19.1</td>
<td>48</td>
</tr>
<tr>
<td>Enjoy leave of absence</td>
<td>90</td>
<td>23.8</td>
<td>49</td>
<td>13.0</td>
<td>238</td>
</tr>
</tbody>
</table>

**Average Score** 3.9 1.0

*Source: Primary data*

It is clear from Table 4.19 that the respondents were in agreement with most of the issues raised on work demands with mean values ranging from 3.6(SD=1.2) and 4.6(SD=.73). One can also observe from Table 4.19 that the respondents claimed that one of the reasons for working was to support themselves (Mean=4.6, SD=.73) and their families (Mean=4.2, SD=.90). This represented 348(92.3%) and 307(81.4%) of
the respondents respectively. This is in line with Robotham’s (2009) research conducted in United Kingdom using students studying in higher institutions. The study reported that most students were working either in part-time or in full-time employments while studying. Robotham found that these students reported that they felt the obligation to work in order to afford basic necessities and also to support themselves and their families financially.

It can be noted that 298 (79%) and 313(83.1%) of the respondents indicated that they were in school for two reasons, first to gain promotion at their workplaces (Mean=4.1, SD=1.1) and also to build their self-confidence as workers (Mean=4.2, SD=.94). This confirms a related study in South Africa where the respondents admitted among other reasons that they enjoyed financial independence, built confidence at workplace by applying knowledge from school to work and stood a good chance of progressing to a more challenging positions in their places of work after completion of school (Mudhovozi, 2011).

On the issue of combining work with studies as a job requirement, the respondents showed their agreement with a mean value of 4.2 (SD=.94) as also confirmed by 312 representing 82.1% of the total number of respondents. This finding is in tandem with the Ghana Service Education policy which stipulated that teachers at the basic education level must possess a minimum of Diploma in Basic Education certificate to be able to teach in primary and junior high schools. In addition, most students stood the chance of gaining employment into public schools after successful completion of programmes if they were teachers in private schools. Again, as reiterated by Neilson (2015), job insecurity and low wages can count for an increase in persistence among students in higher institutions who chose to work and study at the same time.
More than half of the female students further agreed (Mean=3.6, SD=1.2) that studying was sometimes enjoyable when they were able to apply some experiences gained from workplace with 229 (60.7%) respondents affirming to this statement. This finding supports the study by Wyland et al. (2013) who explained that students were more likely to apply theories learned in school to their work role when they concentrated more on their school roles. However, their work roles were likely to suffer when much time and energy were invested in the school roles (Wyland et al., 2013). This assertion was supported by a study centre coordinator when he commented that:

This is a very huge task because if you combine working with schooling there are certain problems you are likely to face. Definitely you cannot be learning while you are at work place. Some of them use part of the time to work to read their modules. The Ministry of Education even came out with a report that it was one of the factors retarding the progress of pupils in the primary schools because sometimes these student-teachers abandon teaching to read their modules. I think they have a challenge.

Despite the benefits expressed by the respondents as student-workers, they equally agreed that it was difficult combining work and studies (Mean=3.9, SD=1.2) as seen in the study by Phillips et al. (2016) in United States. The researchers reported that the participants experienced some challenges in managing their work-life situations. In addition, 238 of the participants representing 63.1%, were quick to disagree (Mean=2.4, SD=1.3) that they do enjoy leave of absence from their employers to enable them concentrate better on their studies.

The results as seen from Table 4.19 were further supported with results from the face-to-face interview sessions with the female students. Seeking for a general view on the work demands of female students, a female participant had this to say on the issue of
the need to work to support themselves and their family members. She mentioned that:

Apart from my normal teaching job at a private school and I also teach some pupils in their homes after school in order to raise extra money to settle my school fees. I am the oldest child of my mother and sometimes I support my younger siblings financially when the need arises.

Other female interviewee also shared her experiences on application of knowledge gained in school to work when she reiterated that:

What I have noticed is that since when I started this programme my knowledge base has developed very much. Whenever I am given a task I perform very well. It has given me general insight into how to manage things. Again, working and studying equip me with the skill of handling multiple tasks.

Throwing light on this, another participant commented happily that:

Yes, even as I speak now I have three special children in my class; two have language problems while the other one has an abnormal behaviour as compared to other children. As a teacher you need to give them the needed attention and concentrate on them for them to be part of the class. The course we are doing helps to improve our teaching skills.

The female students were further asked to elaborate on the challenges they face as they work and study at the same. One of them commented that:

The disadvantage is that when you are teaching in the junior high school level, activities such as marking, class tests, exercises and homework of the students usually takes your time during hours when you have no lessons to teach. Last term for instance, when we vacated from school I really suffered because I had to mark my students’ examination scripts while at the same time I had exams to write. I was late in compiling my students’ assessment reports.

In addition to the descriptive analysis, the last objective aimed at establishing the effect of work demand on persistence of female students. To calculate for the effect, a null hypothesis was derived and tested as follows:

Ho₄: Work demands are not a statistically significant predictor of persistence of female students in distance education programmes at UCC and UEW in Ghana.
The scores on work demands and persistence were both computed individually and a continuous score was obtained for each of the variables. A simple linear regression analysis was, therefore, applied to test the effect of work demands on persistence of female students in distance education programmes. The effect size was determined using the coefficient of determination (R^2) which also indicated the amount of variance in persistence of female students in distance education explained by work demands. The R^2 further showed the extent to which the two variables varied in a systematic way. The variant of the independent variable was placed in the model to determine the R-Square and was used to explain the amount of variability explained in the dependent variable (persistence) by the independent variable (work demands). The R also indicated the relationship between the independent and the dependent variable, while the results from the ANOVA further established the strength of the significance of the relationship between the variables under study. Table 4.20 shows the results from the simple linear regression on work demands and persistence.

<table>
<thead>
<tr>
<th>TABLE 4.20: Simple regression analysis of work demands and persistence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DV: PERSISTENCE</strong></td>
</tr>
<tr>
<td><strong>R</strong></td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Work demands</td>
</tr>
</tbody>
</table>

**NOTE:** p < .001

The result in Table 4.20 is the analysis of simple linear regression of work demands as a predictor variable and persistence as the dependent variable. It can be noted from Table 4.20 that, the value of R is .313 with a p-value of .001. The implication is that there was a weak positive correlation or relationship between the predictor variable and the dependent variable. This result indicates that as work demands of female
students increased their level of persistence also increased as well. The R-Square ($R^2$) as portrayed in Table 4.20 indicated the proportion of the variance in the dependent variable which can be explained or predicted by the independent variable. The value for R-Squared ($R^2$) was .098.

This implied that work demands explained 9.8% variance in persistence (multiplying .098 by 100). It also meant that 90.2% of the variance not explained can be attributed to some other factors. The R-Square ($R^2$) also showed the effect size of .098. Applying Cohen’s (1994) standard on interpretation of effect size where, $r = .10$ (small effect), $r = .30$ (medium effect) and $r = .50$ (large effect), an effect size of .098 was an indication that work demands had a small but significant effect on persistence of female students on distance education programmes. The study went to further check on the significance of the relationship between work demands and persistence and a report on the analysis of variance (ANOVA) showing the sums of squares, the degree of freedom associated with each sum and the F- ratio are reported in Table 4.21.

**Table 4.21: ANOVA test on work demands and persistence**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1673.409</td>
<td>1</td>
<td>1673.409</td>
<td>40.795</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>15382.422</td>
<td>375</td>
<td>41.020</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17055.830</td>
<td>376</td>
<td>1673.409</td>
<td>40.795</td>
<td>.000</td>
</tr>
</tbody>
</table>

As it can be noted in Table 4.21, the F(1, 376)=40.795 which was significant at $p < .001$, meant that the regression model can be used to significantly predict the extent to which work demands affected persistence. In other words, work demand was a predictor of the level of persistence among female students on distance education
programmes. With p-value of .001, it can be concluded that there was a statistically significant effect of work demands on persistence of female students. It was therefore understandable to conclude that work demands were positive determinant of persistence of female students. Based on this result, the null hypothesis that postulated that work demands are not a statistically significant predictor of persistence of female students in distance education programmes at UCC and UEW in Ghana was rejected. This implied that work demands can increase female students’ persistence in distance education programmes.

The study also found out the model parameters (beta values) and the significance of these values to the regression model by looking at the coefficients of the predictor and the outcome variables using regression equation, 

\[ Y = \alpha + \beta x_1 + \varepsilon \]  

[Equation 4.1]

where Y is the predicted value of Persistence, \( \alpha \) = the predicted value of Persistence if \( x_1 \) is zero, \( \beta \) = effect in Persistence due to a unit of change in \( x_1 \), \( x_1 \) = independent variable (work demands) and \( \varepsilon \) = other factors that affect Persistence but not observed in this study. The results are presented in Table 4.22.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B 26.884</td>
<td>Std. Error 1.316</td>
<td>Beta .313</td>
<td>t 6.387</td>
</tr>
<tr>
<td>Work Demands</td>
<td>.385</td>
<td>.060</td>
<td>.313</td>
<td>6.387</td>
</tr>
</tbody>
</table>

From Table 4.22 it can be seen that, the “Constant”, which implied that the predicted value of persistence if work demands is zero is 26.884. The regression weight (Beta)
that specified the amount of change in the outcome (persistence) associated with a unit change in the predictor (work demands) is .385. The regression model was therefore refined by replacing the beta values with the coefficients in the regression equation. The variable names X and Y were substituted in equation 4.1 to generate equation 4.2 as presented below:

\[ \text{Persistence} = \alpha + \beta \text{(work demands)} + \epsilon \]  
\[ \text{Equation 4.2} \]

The coefficients of the regression were further substituted into Equation 4.2 as:

\[ \text{Persistence} = 26.884 +. 385 \text{(work demands)} \]  
\[ \text{Equation 4.3} \]

Then Equation 4.3 was multiplied by a unit (1) of work demands to obtain the results as:

\[ \text{Persistence} = 26.884 +. 385(1) \]  
\[ \text{Equation 4.4} \]

\[ \text{Persistence} = 27.269 \]

The indication is that for every unit increase in work demands, persistence was expected to increase to 27.269, when beta is at .385 ($\beta = .385$). The results as seen in the regression equation connotes that any increase in the work demands of the female students would result in an increase in their level of persistence. The finding supports the survey by Nonis, Hudson (2006) in the United States which revealed that more women (70.9%) than men (58.3%) were concerned about whether they would have enough funds to complete college. The implication is that once they gain admission into colleges they struggle to maintain their jobs while schooling in an attempt to raise the needed funds to cater for their financial needs. As found in this study, though some of the respondents confirmed they were supported by others, a good number of them worked to fend for themselves. A related study by Pascarella and Terenzini, (2005) suggested curvilinear relationship between working and persistence. Other authors however believed that studying and working at the same time can affect
students’ persistence positively so far as the working hours were not intensive (Pascarella as cited in Burrus et al., 2013). This supports the findings as established in the current study and confirmed by the results in the simple linear regression analysis presented in Table 4.2.

After the simple linear regression analysis was applied to test how each of the variants of multiple roles affected persistence, the study further subjected the same quantitative data to a Stepwise Multiple Regression with the aim of establishing which among the four selected areas under multiple roles was the largest significant predictor of persistence among female students in UCC and UEW of Ghana. In line with this a null hypothesis was set as follows:

\[ H_{05}: \text{Family responsibilities, financial responsibilities, social responsibilities and work demands are not statistical significant predictors of persistence of female students in distance education programmes at UCC and UEW in Ghana.} \]

The regression model used to report the results was:

\[ Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + e \]  

[Equation 4.2.1]

where,

\( Y \) = predicted effect of multiple roles on the persistence of the female students,

\( \beta_0 \) = is the predicted Persistence if family responsibilities, financial responsibilities, social responsibilities and work demands are zero.

\( x_1 \) = family responsibilities,

\( x_2 \) = financial responsibilities,

\( x_3 \) = social responsibilities,

\( x_4 \) = work demands were the predictor variables.
error term that symbolized other variables that may affect the dependent variable but were not included in the model because they were assumed not to interfere with the independent variables.

The stepwise multiple regression was considered over the standard multiple regression because it seemed to have the advantage of determining mathematically the independent variables that individually and in combination make the largest contribution to the prediction of a model. The stepwise multiple regression removes the independent variables that do not make any significant contribution to the model and reports the variables in the order of magnitude as how they contribute significantly to a model. Field (2009) however cautioned on the effect of suppressors which might occur due to the type of stepwise method used and recommended the use of backward as better choice as compared to the forward methods. This helps to control the effect of suppressors on the predictors of the model (Field, 2009).

Applying the stepwise multiple regression, all predictors were placed in the model and the contribution made by each of the predictors was calculated by looking at the significance value of the t-test of the predictors individually and compared against a removal criterion (Field, 2009). This meant that with the help of SPSS, a removal criterion was set such that, a probability of F was set for F to enter a variable to .05 and F to remove a variable to .01 (Field, 2009). This alpha adjustment was important to control the overall error rate which may increase because of the more frequent probability testing that is done in stepwise regression. The implication is that “if a predictor meets the removal criterion (i.e. if it is not making a statistically significant contribution to how well the model predicts the outcome variable) it is removed from
the model, the model is re-estimated for the remaining predictors. The contribution of the remaining predictors is then reassessed” (Field, 2009, p.213).

The stepwise multiple regression model also generated the regression weight (beta) which showed the amount of contribution each of the variant of the independent variable made to the regression model holding other variants constant. All the predictor variables were entered into model using backward stepwise regression analysis. The results showing the output obtained from variables entered/removed in the stepwise multiple regression analysis are presented in Table 4.23.

**Table 4.23: Backward stepwise regression analysis on variables entered/removed**

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Demands</td>
<td></td>
<td></td>
<td>Enter</td>
</tr>
<tr>
<td>Social Resp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Resp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Resp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Responsibilities</td>
<td>Backward (criterion: Probability of F-to-remove &gt;= .01).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Responsibilities</td>
<td>Backward (criterion: Probability of F-to-remove &gt;= .01).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 4.23, social responsibilities and family responsibilities were removed from model because they did not have a low enough p value (.05) to enter, due to the fact that their partial correlation with the dependent variable, Y (Persistence), with the effects of the other predictors were held constant. A further analysis to confirm the results on predictor variables that entered the model is reported in Table 4.24.
As depicted in Table 4.24 of the table of variables entered and removed shows that only two predictors, work demands and financial responsibilities entered in the analysis. Family responsibilities and social responsibilities did not pass the entry test of an $F$ with associated probability level of .05. The implication is that the effect of family and social responsibilities and their relationship with the dependent variable has been removed. Based on the results in Table 4.24, the study went further to determine the R-Square to be used to explain the amount of variability explained in the dependent variable (persistence) by the first independent variable (work demands) and by both independent variables (work demands and financial responsibilities). The R also indicated the relationship between the independent and the dependent variable, while the results from the ANOVA further established the strength of the significance of the relationship between the variables under study. The results for obtained for R and R-Squared are displayed in Table 4.25.

### Table 4.24: Stepwise regression analysis on variables entered/removed

<table>
<thead>
<tr>
<th>Source</th>
<th>Method</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>Stepwise (Criteria: Probability-of-F-to-enter &lt;= .05, Probability-of-F-to-remove &gt;= .01).</td>
<td>Work Demands</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.25: Stepwise regression analysis of multiple roles and persistence

<table>
<thead>
<tr>
<th>PREDICTORS</th>
<th>R</th>
<th>R-Square (R²)</th>
<th>P - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Demands</td>
<td>.313</td>
<td>.098</td>
<td>.000</td>
</tr>
<tr>
<td>Financial Responsibilities</td>
<td>.348</td>
<td>.121</td>
<td>.002</td>
</tr>
</tbody>
</table>

**NOTE:** p< .005
The results from Table 4.2 implies that work demands as a predictor has a positive but weak relationship with the dependent variable with, $R = .313$ and $p<.05$. This result indicates that as work demands of female students increased their level of persistence also increased as well. The R-Square ($R^2$) as portrayed in Table 4.25 was .098. This implied that work demand explained close to 9.8% variance in persistence (multiplying .098 by 100). It also meant that about 90.2% of the variance not explained can be as a result of factors. The R-Square ($R^2$) also showed the effect size of .098. Applying Cohen’s (1994) standard on interpretation of effect size where, $r = .10$ (small effect), $r = .30$ (medium effect) and $r = .50$ (large effect), an effect size of .098 is an indication that work demands had a small and significant effect on persistence of female students on distance education programmes.

In addition, the results in Table 4.25 also show a combined $R$ of .348 and $p<.05$ for both work demands and financial responsibilities and an increase of R-Square from .098 (only work demand) to .121 (both work demands and financial responsibilities) which was also significant. The $R^2$ of .121 meant that the both work demands and financial responsibilities explained 12.1% of the variance in persistence leaving 87.9% unexplained variance which may be attributed to other unobserved factors.

To confirm how significant the relationship between work demands, financial responsibilities and persistence were to able to predict an outcome, a report on the analysis of variance (ANOVA) showing the sums of squares, the degree of freedom associated with each sum and the F-ratio are reported in Table 4.26.
Table 4.26: ANOVA test on work demands, financial responsibilities and persistence

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression 1</td>
<td>1673.409</td>
<td>1</td>
<td>1673.409</td>
<td>40.795</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>15382.422</td>
<td>375</td>
<td>41.020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17055.830</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression 2</td>
<td>2060.525</td>
<td>2</td>
<td>1030.263</td>
<td>25.696</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>14995.305</td>
<td>374</td>
<td>40.094</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17055.830</td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results presented in Table 4.26, shows that the overall $F$ test for the two-predictor model for explaining female student persistence was significant at $F(2,374)=25.696$, $p<.05$, which meant that the regression model can be used to significantly predict the extent to which work demands and financial responsibilities affect persistence.

The study went further to find out the model parameters (beta values) and the significance of these values to the regression model by looking at the coefficients of the predictor and the outcome variables using regression equation:

\[ Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \varepsilon \]  

[Equation 4.2.2]

where $Y$ is the predicted value of Persistence, $\beta_0$= the predicted value of Persistence if $x_1$ and $x_2$ are zero, $\beta_1$ = effect in Persistence due to a unit of change in $x_1$, $\beta_2$= effect in Persistence due to a unit of change in $x_2$, $x_1$= independent variable (work demands) and $x_2$= independent variable (financial responsibilities) and $\varepsilon$=other factors that affect Persistence but not observed. The results are presented in Table 4.27.
Table 4.27: Coefficients of work demands, financial responsibilities and persistence

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>26.884</td>
<td>1.316</td>
<td>20.428</td>
<td>.000</td>
</tr>
<tr>
<td>Work Demands</td>
<td>.385</td>
<td>.060</td>
<td>.313</td>
<td>6.387</td>
</tr>
<tr>
<td>(Constant)</td>
<td>23.140</td>
<td>1.773</td>
<td>13.050</td>
<td>.000</td>
</tr>
<tr>
<td>Work Demands</td>
<td>.340</td>
<td>.061</td>
<td>.277</td>
<td>5.544</td>
</tr>
</tbody>
</table>

The results as presented in Table 4.27 show the coefficient of work demand as a lone predictor of persistence and the individual coefficients of work demands and financial responsibilities as combined predictors of female students persistence. Both beta values were significant for work demands ($\beta = .385, p < .05$) in the first model and work demands ($\beta = .340, p < .05$) and financial responsibilities ($\beta = .162, p < .05$) in the second model. In addition the Constant for work demands is 26.884. Being confident that work demands predict persistence of female students persistence, the regression equation in the first model was refined by replacing the $\beta$-values with the actual coefficient from the regression equation and x and Y with the variable names as seen in equation 4.2.3:

$$\text{Persistence} = \beta_0 + \beta \text{ (work demand)} + \epsilon$$  \hspace{1cm} \textbf{[Equation 4.2.3]}

The coefficients were further substituted in the Equation 4.2.3 as:

$$\text{Persistence} = 26.884 + .385(\text{work demand})$$  \hspace{1cm} \textbf{[Equation 4.2.4]}

Multiplying Equation 4.3 was by a unit (1) of work demands, the result was obtained as:

$$\text{Persistence} = 26.884 + .385(1)$$  \hspace{1cm} \textbf{[Equation 4.2.5]}

$$\text{Persistence} = 27.269$$
The Beta weight and variable names were further used to refine the regression equation for second model as follows:

\[ \text{Persistence} = 23.140 + 0.340(\text{work demands}) + 0.162(\text{financial responsibilities}) \]  \[\text{Equation 4.2.6}\]

Multiplying both sides of equation by a unit (1) each of work demands and financial responsibilities the result was obtained as:

\[ \text{Persistence} = 23.140 + 0.340(1) + 0.162(1) \]  \[\text{Equation 4.2.7}\]

\[ \text{Persistence} = 23.642 \]

The indication is that using the stepwise multiple regression analysis work demand uniquely made the greatest contribution as a predictor of persistence of female students. Again, both work demands and financial responsibilities shared some amount of contributions as predictors of persistence of female students therefore partially rejecting the null hypothesis which indicated that family responsibilities, financial responsibilities, social responsibilities and work demands are not statistical significant predictors of persistence of female students in distance education programmes at UCC and UEW in Ghana. This was the situation as two out of the four independent variables made statistically significant contribution in predicting the persistence of female students.

It is important to mention that the results from the multiple regression confirmed the opinions as expressed by the respondents on the effects on multiple roles on the persistence of female students. The interviews revealed that though the female students have family responsibilities, they equally received some form of support from family members and partially from the institution as described by a study centre coordinator that:
We know some of them they do not have caretakers or baby sitters so they leave their children with their husbands. Some of the husbands sometimes follow their wives to the centre just to assist them. We allow also them to bring them to face-to-face and if possible we allow them to bring them into the class room. We permit them to bring along caretakers so during examination when the children are crying they can bring them to be breast fed while give them extra time to finish the examination.

This was complemented by a female student interviewee when she added that, “this morning when I was coming for lectures my baby cried severely, but my mother came around to take care of her so that I can attend lectures,” she concluded.

The views of the respondents on social responsibilities were further confirmed by exclusion of social responsibilities from the multiple regression as a predictor of persistence. Most participants admitted that they did not actively participate in social roles in their families and communities as students as seen in the previous analysis of both quantitative and qualitative data. This finding supports the study by Aisenburg and Harrington who coined the term “the marriage plot” to describe the attitude of most females to shun away from most social and political activities (as cited in Williams, 2017, p. 27).

The results from the multiple regression analysis concur with findings by Horn and Berktold as cited in Burrus et al. (2013) who had suggested that work was positively related to persistence. The finding is also in support of the theory of student attrition by Bean and Metzner (1985) when they proposed that persistence of distance students were affected by some environmental variables. The study has confirmed that two of such variables were work demands and financial responsibilities. As depicted from this study, female students worked hard to persist on their course of study though they admitted they experienced increased multiple roles which can be considered as
unfavourable environmental conditions. The findings is in line with the feminist standpoint theory which claimed that females are to be made the central focus of feminine studies as their experiences of their material world might lead to production of new knowledge. The findings as established in the current study seemed to go against the usual norm because increases in financial roles and work demands could have led these female students to drop-out of college. This brings in the issue of the societal context under which students find themselves as postulated in the feminist standpoint theory.

In the situation where the attainment of the higher certificates in education ensures some level of employment into the job market, job security as well as boost self-worth, then students are likely to persist despite the harsh environmental conditions they might experience. This was the picture as portrayed in the current study. The study therefore projects an illustration of two-predictor variables for female students’ persistence in distance education in context of the research area as follows:

Figure 4.3: Two-predictor variables of persistence for female students in distance education

Source: The Researcher, 2017
Figure 4.3 shows an illustration of two-predictor variables of persistence for female students based on the results from the stepwise multiple regression analysis. Work demands and financial responsibilities were both positively related with persistence but as seen in Figure 4.3 there is the possibility of some other environmental conditions that were likely to influence this relationship. These contextual environmental conditions may include the need for financial stability, the urge to get well-paying jobs and the need to ensure some level of job security. This finding as established by the multiple regression analysis was firmly supported by the participants during the interview session as one study centre coordinated opined that:

Yes, if they should leave their jobs and concentrate on studying, they are not assured if they would be employed when they complete. So they think it is good to maintain jobs while studying so that when they graduate they would only go in for some upgrading or promotion.

A female student interviewee further added that “we are going through this hardship is because of our future and the future of our children. We need enough money so that we can give our children better education. We also want to have a better livelihood,” she added. It can therefore be established that though the female student on the distance education mode faced some amount of difficulty as far as work demands and financial responsibilities were concerned, they were however determined to persist on their programmes of study.

One distinguishing finding that emerged from the interviews was the issue of support. Most of the female student interviewees mentioned that they received support from family members in areas such as family responsibilities and social responsibilities. It has been established from the study that the support the participants received from others on family responsibilities was one of the factors that helped them improve their
persistence as confirmed from the qualitative data. This could also be the reason why these two roles did not contribute significantly to the prediction of persistence of female students as depicted from the stepwise multiple regression analysis. The following verbatim quotations from some of the participants affirmed this finding:

Yes, my husband has been very supportive. He helps me with the housework so that I can have time for my studies. He never got a formal education but when it comes to the issue of education he does not joke with it. For me to leave my books and do something else, he would not agree, he would rather prefer to help so I concentrate on my studies.

I had my first child when I started this programme and my mom has been very supportive. Although she is about 80 years, she takes care of my son because she wants to sacrifice for me so that I get enough time for my academic work. She has been very helpful.

On social roles, you know sometimes the person involved might be a close relative who may take offence if you do not attend such important events of their lives. For instance, yesterday I had to absent myself from lectures because my childhood friend was getting married. But if the events occur when I have a quiz or examination to write, I do forgo the event and go in for the examinations. Usually, I either call the family involved to tell them I would not be able to attend or sometimes I get my sister to stand in for me if the need arises.

The above comments from the participants confirmed the role support played in helping the female students to manage persistence in relation to family and social responsibilities as established in this study and emphasised by Baier, Markman and Pernice-Duca (2016) when they asserted that the support given by parents and family members play a very important role in the lives of college students.
5.1 Introduction

The summary of the study is presented in this chapter. The chapter also presents the summary of the main findings as guided by the objectives. It establishes conclusions and policy recommendations and also suggests areas for further research.

5.2 Summary

The purpose of this study was to find out the effect of multiple roles on persistence of female students in distance education programmes at University of Cape Coast and University of Education, Winneba with the intention of raising awareness among administrators of distance education institutions towards the needs of female students.

The study was guided by the following objectives. To: (i) Determine the extent to which family responsibilities affect the persistence of female students in distance education programmes at UCC and UEW in Ghana; (ii) Determine how financial responsibilities of female students affect their persistence in distance education programmes at UCC and UEW in Ghana; (iii) Establish the extent to which social responsibilities affect the persistence of female students in distance education programmes at UCC and UEW in Ghana; (iv) Establish the effect of work demands on the persistence of female students in distance education programmes at UCC and UEW in Ghana.

The study tested five null hypotheses which were: (i) Ho₁: Family responsibilities are not statistically significant predictor of persistence of female students in distance education programmes at UCC and UEW in Ghana; (ii) Ho₂: Financial
responsibilities are not statistically significant predictor of persistence of female students in distance education programmes at UCC and UEW in Ghana; (iii) Ho3: Social responsibilities do not make statistically significant contribution in predicting persistence of female students in distance education programmes at UCC and UEW in Ghana; (iv) Ho4: Work demands are not statistically significant predictor of persistence of female students in distance education programmes at UCC and UEW in Ghana; (v) Ho5: Family responsibilities, financial responsibilities, social responsibilities and work demands are not statistically significant predictors of persistence of female students in distance education programmes at UCC and UEW in Ghana.

To respond to the objectives and test the hypotheses, the study adopted the Embedded Mixed Methods model which helped in providing an in-depth understanding of the phenomenon under study. This model made it possible for the collection of both quantitative and qualitative data. Data were collected through questionnaire from three hundred and seventy-seven respondents. A total of sixteen interviews were conducted. The quantitative data were analysed using descriptive statistics (frequencies, percentages, means and standard deviations) and inferential statistics which included both simple linear regression and stepwise multiple regression. The qualitative data collected through interviews were thematic and reported verbatim to support the quantitative data. The next session presents the summary of the findings based on the objectives of the study.
5.2.1 Family Responsibilities and Its Effect on Persistence of Female Students

The intent of research objective one was to determine the extent to which family responsibilities affected the persistence of female students in distance education programmes. The study considered roles that were supposed to be performed by females in the family settings. It was established that female students took up responsibility of caring for both children and elderly members of their families. The study found that domestic roles such as cooking and doing laundry were part of the responsibilities undertaken in the home. It was also established that carrying pregnancy and nursing babies while studying on the distance education programmes was a difficult task. The study found that on the whole family responsibilities interfered with the academic activities of female students studying through the distance education mode.

On the effect of family responsibilities on persistence of female students, the results of the simple linear regression analysis indicated that there was a positive relationship between family responsibilities and persistence, though the effect size was minimal. In addition, family responsibilities made a statistical significant contribution to persistence of female students such that a unit increase in family responsibilities increased the persistence of female students as well. This meant that when family responsibilities were on the increase, female students worked harder to increase their persistence. Though this finding seemed to go against the usual norm because one would have expected the female students to drop out of college as their family roles increased. The study therefore, rejected the null hypothesis in support of the result of the regression analysis.
5.2.2 Financial Responsibilities and Its Effect on Persistence of Female Students

The aim of the second objective of the study was to determine the extent to which financial responsibilities affected the persistence of female students in distance education programmes. The study found that paying attention to the financial needs of close relatives were of priority to the female students despite the fact that they experienced some difficulty in raising enough funds for their academic needs. The study established that most of the female students did not receive any form of financial help from their immediate family members. Again, it was found that a greater number of female students did not access the Student Trust Fund either out of ignorance or to avoid the accumulation of interest that come with such facility even though they were self-sponsoring their education. The study further established that most female students were engaged in other businesses and petty jobs to raise enough income to meet their financial needs.

Concerning the effect of financial responsibilities on persistence of female students, the results of the simple linear regression analysis indicated that, there was a positive relationship between financial responsibilities and persistence, though the effect size was minimal. In addition, financial responsibilities were positive determinant as it made a statistically significant contribution to persistence of female students. It was established that an increase in financial responsibilities resulted in increased persistence among the female students. Hence, the study rejected the null hypothesis which indicated that financial responsibilities are not statistically significant predictor of persistence of female students in distance education programmes. This implied that when female students had a lot of financial responsibilities to manage, it influenced them to increase their level of persistence.
5.2.3 **Social Responsibilities and Its Effect on Persistence of Female Students**

The third research objective of this study sought to establish the extent to which social responsibilities affected the persistence of female students in distance education programmes. The study found that most female students did not take part or partially took interest in many social roles that took place in their communities. It was revealed that only a handful actively participated in marriage, burial and naming ceremonies. It was also revealed that female students took active roles in religious based activities and very less in traditional leadership and political roles. The study established that female students used their status as students to stay away from most social events or made arrangements for other family members to represent them.

With regard to the effect of social responsibilities on persistence, the results of the simple linear regression analysis indicated that there was no relationship between social responsibilities and persistence. It was realised that social responsibilities made no statistically significant contribution to persistence of female students. The implication was that the social responsibilities of female students did not affect their persistence in distance education programmes. Hence, the study failed to reject the null hypothesis which indicated that social responsibilities are not statistically significant predictor of persistence of female students in distance education programmes as the results of the regression analysis supported this hypothesis.

5.2.4 **Establishing the Effect of Work Demands on Persistence of Female Students**

The purpose of the last objective was to establish the extent to which work-related demands affected the persistence of female students in distance education programmes. The study revealed that most of the respondents were working in private
establishments and worked for a maximum number of days and hours respectively. It was also found that respondents were obliged to work in order to afford basic necessities and also to support themselves and their families financially. Working and studying was necessary among other reasons such as a way to gain promotion at workplaces, build self-confidence and as part of job requirement but respondents were quick to admit that it was a difficult task as established in this study.

To find out if work demands affected the persistence of female students in distance education, the results from the simple regression analysis showed that there was a positive relationship between the two variables. The results further established that the effect size of work demands on persistence was small. In addition, work demands made a statistically significant contribution as a positive predictor of persistence of female students. This was an indication that as their work demands increased, the female students did their best to increase their level of persistence to be able to pursue their course of study. Based on this conviction, the study rejected the null hypothesis that postulated that work demands were not statistically significant predictor of persistence of female students in distance education programmes.

In the stepwise multiple regression analysis, family responsibilities and social responsibilities were removed from the model as they were not making any significant contribution in predicting persistence of female students. The study found that work demands made the largest unique contribution to persistence of female students. Again, both work demands and financial responsibilities made a shared contribution in predicting persistence of female students. The study partially rejected the null hypothesis. Two-predictor variables for persistence was therefore proposed based on
the results of the stepwise multiple regression. The study further established the emergence of support as one of the factors that helped the respondents to manage their family and social responsibilities thereby nullifying their effects on persistence.

5.3 Conclusions

This conclusion section looks at the findings that were generated from each of the objectives which guided the study. The conclusions of the study are as follows:

Female students performed various roles in the family as expected of them. These included giving care, maintaining their homes, and expecting and nursing babies. The study concluded that though female students experienced some difficulty in performing these family responsibilities, their persistence was not affected negatively. Rather, the increased family responsibilities equally generated increased persistence among the female students. Family responsibilities were a significant predictor of persistence of female students.

It also came to light that, financial responsibilities of female students included provision of financial needs of relatives and raising funds to support their education through engaging in many petty jobs as most of them did not receive financial help from others nor access loans. The findings showed that female students were challenged by their financial responsibilities but this difficulty affected their persistence positively. The study concluded that increased financial responsibilities significantly contributed to the increase of persistence of female students.

In addition, female students performed social responsibilities such as rites of passage and participated actively in religious roles but less in traditional and political leadership. The study concluded that female students partially took part in social
activities as they got others to attend such events. It was confirmed that statistically, social responsibilities did not contribute significantly to the persistence of female students and therefore, had no effect on persistence of female students.

Finally, most female students worked in private institutions. Among other reasons, they worked and studied to support themselves, to develop self-confidence and to fulfil a job requirement though they experienced some difficulty as students. The findings showed that work demands had positive effect on persistence of female students. Based on the findings of the stepwise multiple regression, the study concluded that work demands made the largest statistically significant contribution to persistence of female students.

5.4 Recommendations

This session focuses on study recommendations that may enhance management of multiple roles and improve persistence among female students. These recommendations were made based on the findings drawn from the study as guided by the objectives. The recommendations are related to policy, practice and suggestion for further research.

5.4.1 Policy Recommendations

Based on the findings of objective one, it is recommended that:

i. The administrators should create or strengthened policies which allow students to take some minimum number of course units over a prolonged period. This can be done by implementing dual modules which will allow female students the option to choose which module will be suitable for them based on the condition in which they find themselves. This would allow female students with heavy family
responsibilities the necessary time allowance to help them manage both roles effectively. In addition, managers and administrators of distance education institutions should draw policies that take into consideration the peculiar characteristics of female students that patronise their programmes such as those who manage multiplicity of roles. In this respect it would be laudable if the management of distance education institutions create gender based desks with trained personnel to help give the necessary information to female students on effective management of roles.

With reference to objective two the study recommends the following:

i. Administrators and managers of distance education institutions should ensure that they restructure modes of paying fees that allow students the chance to pay fees by smaller instalments over the period of their study. This is important due to the fact that most students who have lower earning, have a low tendency of saving large amount of money over a longer period of time. The use of mobile money accounts for easy transfer of smaller amounts of money conveniently would be recommendable. Female students must be educated on policies of students’ loan funds available for access in order to create awareness.

ii. Non-governmental organisations and philanthropic organisations with women advancement agendas could be encouraged to create scholarship schemes to support female students in distance education institutions.

With respect to objective three, it is recommended that The National Centre for Civic Education should develop sensitization programmes that target to female students in distance education to improve their participation in local and national political leadership. Community and family leaders should also organise family gatherings at
times which would be convenient to most females in school especially those who study over the weekends as most traditional rites take place on such days.

Based on the findings of objective four the study recommends that:

i. The National Council for Tertiary Education and the Ministry of Education should enact policies that focus on the female students on the distance education programmes to ensure that female students get the maximum time for both studying and working.

5.4.2 Recommendation for Practice

i. The management of distance education institutions should educate female students on the importance of accessing public funds to support their financial needs as students. They should make the study centres baby-friendly for student mothers and their caregivers by creating spaces for baby relaxation. Administrators of distance educational institutions should create special programmes to develop a strong synergy of support systems for female students within the family system.

ii. The Women’s Commissioner Offices of the Distance Education Students Association of Ghana should create specific programmes that educate female students on how to effectively manage their roles.

iii. Administrators should give information to female students on the need to develop the ability to inquire from fellow female students who shared similar characteristics with them on management strategies that worked for them.
5.4.3 Suggestions for Further Research

The study suggests further research to be done in the following areas:

1. The current study looked at multiple roles of only female students in distance education programmes. However, multiple roles among male students cannot be taken for granted. The study can therefore be replicated as comparative study for both female and male students in distance education institutions.

2. The result from regression analysis indicated that there were other equally important factors that were not considered in this study. This study suggests that further research should include other variables beyond family, financial and social responsibilities, and work demands that were used in this study.

3. This study concentrated on public universities but there are female students accessing programmes in distance education that are offered by private universities. This study therefore suggests that the same study be replicated using female students in private universities so as to provide a holistic picture for policy makers on matters concerning female students in distance education.

4. As this study focused on how multiple roles affected the persistence of female students, it is suggested other studies be done to find out the effect of multiple role on the academic performance and completion of female students on distance education programmes.
REFERENCES


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APPENDICES

APPENDIX I: Female Student Questionnaire

Introduction:
My name is Beatrice Asante Somuah, a student researcher conducting a study on the effect of multiple roles on persistence of female students in distance education programmes in selected public universities in Ghana. The study is intended to investigate the extent to which the various roles performed by female students affect their persistence in distance education programmes with the view of stimulating interventions that may help address the needs of female students. The questions you are about to answer were formulated for research purpose only and your responses will be preserved with the needed confidentiality. Feel free to answer them in the way the issues under discussion actually occur in your view since no answer is ‘right’ or ‘wrong’. I am very grateful for the help you are giving me by participating in this study. Ask for further clarification on anything that is not clear to you, and inform me if you want to stop for any reason.

Consent of Respondent
Can we proceed?

Yes [ ]

No [ ]
SECTION A

Demographic Information

**Instruction:** Please respond by ticking (√) the most appropriate option for each of the proposed items below.

1. What is your age range?
   a) 18-25 years [  ]
   b) 26-35 years [  ]
   c) 36-45 years [  ]
   d) 46 and above [  ]

2. What is your marital status?
   Married [  ] Single [  ] Widowed [  ] Divorced [  ]

3. Do you have children who depend upon you for support? Tick what is applicable, please.
   a) Biological children [  ]
   b) Adopted children [  ]
   c) Both biological and adopted children [  ]
   d) Children of other relatives and friends [  ]
   e) Biological, adopted and children from relatives and friends [  ]

4. What is the age bracket of the children? Tick as many as applicable, please.
   a) 0-2 years [  ]
   b) 2-5 years [  ]
   c) 6-12 years [  ]
   d) 12-15 years [  ]
   e) 15 and above [  ]
5. If yes which of the following relatives do you support? Tick as many as applicable to you

- Parent [ ]
- Siblings [ ]
- Grandparents [ ]
- Nieces and nephews [ ]
- Other relatives [ ]

6. The highest level of educational qualification that you are planning to attain is

- Diploma [ ]
- Bachelor’s degree [ ]
- Master’s degree [ ]
- Doctorate degree [ ]

**SECTION B**

**Family Responsibilities**

Please provide answers to the questions by ticking [✓] the most appropriate response to the statements.

<table>
<thead>
<tr>
<th>No</th>
<th>Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Female students are the only ones responsible for taking care of the children at home.</td>
</tr>
<tr>
<td>8.</td>
<td>Female students offer help to give medical care to elderly relatives when it becomes necessary</td>
</tr>
<tr>
<td>9.</td>
<td>Female students are responsible for cooking for the family.</td>
</tr>
<tr>
<td>10.</td>
<td>Female students are responsible for doing the laundry for the family.</td>
</tr>
<tr>
<td>11.</td>
<td>Female students often have less time for their husbands because of their studies</td>
</tr>
<tr>
<td>12.</td>
<td>Studying on distance education creates problems for female students who are expecting babies</td>
</tr>
<tr>
<td>13.</td>
<td>Studying on distance education creates problems for female students who are nursing babies</td>
</tr>
<tr>
<td>14.</td>
<td>Family responsibilities many times interfere with the studies of female students</td>
</tr>
</tbody>
</table>

15. Please indicate how any of other family roles affect you positively or negatively as a student on distance education programme.
SECTION C
Financial Responsibilities

Please provide answers to the questions by ticking [✓] the most appropriate response to the statements.

<table>
<thead>
<tr>
<th>No.</th>
<th>Statements</th>
<th>Very true of me</th>
<th>True of me</th>
<th>Somehow true of me</th>
<th>Not true of me</th>
<th>Not at all true of me</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.</td>
<td>Female students help in providing the financial needs of their children.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Female students help in providing the financial needs of relatives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Female students are often not able to raise enough money to meet their academic needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Families help female students in paying fees.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Female students are not solely responsible for paying their fees.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>Female students’ seek financial support from the Students’ Loan Fund</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>Female students seek financial support from employers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>Female students access loan from banks to enable them fulfil their financial obligations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>Female students do more than one job to enable them to make enough money for their needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25. Monthly earnings of female students range between; Gh₵100- 300 [ ]
   Gh₵400-600 [ ]           Gh₵700-1000 [ ]
   Gh₵1100 - 1400 [ ]       Gh₵1400 and above [ ]

26. Which of the following best describes how your fee for this course was paid?

Please tick [✓] the most appropriate response.

<table>
<thead>
<tr>
<th></th>
<th>Help from employer</th>
<th>Parent(s)/ siblings</th>
<th>Scholarship/grant/ student loan</th>
<th>Self-sponsorship</th>
<th>Partner/husband</th>
</tr>
</thead>
</table>
SECTION D

Social Responsibilities

Please indicate your level of agreement with the following statements by ticking (√) the most appropriate response to the statements.

<table>
<thead>
<tr>
<th>No.</th>
<th>Statements</th>
<th>Never</th>
<th>Seldom</th>
<th>Sometime</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.</td>
<td>How often do female students take part in marriage ceremonies?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>How often do female students take part in funeral ceremonies?</td>
<td></td>
<td></td>
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<td>29.</td>
<td>How often do female students take part in outdooring of newly born babies?</td>
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<td>30.</td>
<td>How often do female students take part in local festivals (e.g. Fetu, Akwasidae, Buvum, Homowo)?</td>
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<td>31.</td>
<td>How often do female students take part in roles such as being a queen mother, assembly member or leadership in political parties?</td>
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<td>32.</td>
<td>How often do female students take part in church leadership (e.g. in women’s fellowship, treasurer, secretary, children ministry, etc.)?</td>
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<td>33.</td>
<td>Social responsibilities sometimes interfere with female students’ schoolwork.</td>
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<tr>
<td>34.</td>
<td>Female students sometimes forego studies to enable them perform their social and religious duties.</td>
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</table>

35. Do female students enjoy any benefits as they perform some of the roles mentioned above? Indicate these benefits, if any, please. 

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SECTION E

Work Demands

36. What is your current status in terms of employment?
   Government employment [ ] Private employment [ ]
   Not employed but searching for work [ ] Self-employment [ ]
   No intentions to get employed now [ ]

37. How many days do you work each week? Please tick the correct response
   None, I do not work [ ] 1-2 days [ ]
   3-4 days [ ] 5-6 days [ ]
   All 7 days [ ]

38. How many hours do you work in a day on the average? Please tick the appropriate response.
   1-2 hours [ ] 2-3 hours [ ] 4-5 hours [ ]
   6-7 hours [ ] 8 hours and above [ ]

Please provide answers to the questions by ticking [✓] the most appropriate response to the statements

<table>
<thead>
<tr>
<th>No.</th>
<th>Statements</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Moderately Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
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<tbody>
<tr>
<td>39.</td>
<td>Female students work to support themselves.</td>
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<td>40.</td>
<td>Female students work to support their families.</td>
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<td>41.</td>
<td>Female students combine work and studies in order to gain promotion at workplace.</td>
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<td>42.</td>
<td>Female students combine work and studies in order to gain self-confidence</td>
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<td>43.</td>
<td>Female students combine work and studies to fulfil job requirements.</td>
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<td>44.</td>
<td>Female students carry some of their work to do at home.</td>
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<td>45.</td>
<td>Female students enjoy studies because of the work experience they have.</td>
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<td>46.</td>
<td>Female students find it difficult to combine work and studies.</td>
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<td>47.</td>
<td>Employers give female students leave of absence to enable them concentrate on studies.</td>
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</table>

48. Please state other ways in which your work affects your studies: ...............
SECTION F

Perceptions on Persistence

Please provide answers to the questions by ticking [$\checkmark$] the most appropriate response to the statements.

<table>
<thead>
<tr>
<th>No.</th>
<th>Statements</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Moderately Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>49.</td>
<td>I am confident about registering again for the next semesters.</td>
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<td>50.</td>
<td>I have never considered changing my diploma or degree programme to another university.</td>
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<td>51.</td>
<td>I am losing interest in my academic work due to pressure from other duties.</td>
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<td>52.</td>
<td>I am confident that I will complete my study within stipulated time</td>
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<td>53.</td>
<td>I participate in all quizzes and end of semester examinations</td>
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<td>54.</td>
<td>I often arrive late for class meetings due to other duties.</td>
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<td>55.</td>
<td>I am not able to study very much.</td>
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<td>56.</td>
<td>I sometimes absent myself from classes due to illness and other personal reasons.</td>
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<td>57.</td>
<td>I am able to take part group discussions regularly.</td>
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<td>58.</td>
<td>I am able to submit class assignment on time.</td>
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<td>59.</td>
<td>Interact and get involved with other students through sports and seminars.</td>
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<td>60.</td>
<td>I am supported by my family members in my studies.</td>
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<td>61.</td>
<td>I am supported by my friends in my studies.</td>
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<td>62.</td>
<td>Friends and family members will be disappointed if I quit school.</td>
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<td>63.</td>
<td>I would be honoured by my family if I accomplish my aim.</td>
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<td>64.</td>
<td>My employers support me very much in my studies.</td>
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65. Do you have any other information that you will like to add to this study? Please indicate.................................................................................................................................................................................
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Thanks very much for your time and for accepting to participate in this study.
APPENDIX II: Female Student Interview Guide

This research is to investigate the effect of multiple roles on the persistence of female students studying through the distance education programmes. Your views and contributions to this discussion will help provide in-depth understanding on this phenomenon. Your confidentiality is assured.

1. What is the highest education level do you aspire to achieve?
2. Please share some of the experiences on family responsibilities and your role as a female student on a distance education programme.
3. How do you manage situations when your role as female conflicts with studies and other schedules?
4. What active social roles do you take part in your family/community and how does it affect you as a student on distance education programme?
5. How will you describe your financial responsibilities as a female student?
6. What are your views on the issue of combining work and studies? What advantages and disadvantages do you encounter as a working female student?
7. How do the responsibilities discussed above affect your academic responsibilities?
8. What is motivating you to persist in the programme?
9. What forms of support from friends, family members, church members or community members help you to study successfully?
10. What benefits or challenges do you experience as you perform these multiple roles?
11. Please share any other suggestions or comments you have on this discussion.

Thank you very much for your time, views and comments.
APPENDIX III: Study Centre Coordinator Interview Guide

The focus of this study is to find out how multiple roles affect the intentions of female students to persist on their programmes of study. Your contribution as a study centre coordinator will go a long way to enhance issues concerning persistence of female students in distance education programmes. Your confidentiality is assured.

1. How long have you been working as a study centre coordinator?
2. Have you encountered occasions where the external conditions such as family responsibilities and social roles created some difficulty for female students in your study centre to concentrate on their studies?
3. How do you rate financial responsibilities of the female students in terms of their ability to pay their tuition in comparison with the male students?
4. In your view, how does work demand affect the persistence of female students on their course of study?
5. Do you have specified resource personnel readily available to assist a female student on how to manage these external roles if they conflict with her studies?
6. What is your general perception about the female students who use this place as their study centre?
7. What are your suggestions on ways of improving the conditions for students in general and female students in particular at this study centre?

Thank you very much for your time, views and comments
APPENDIX IV: Map of Ghana Showing the Coverage of the Research Site
APPENDIX V: Informed Consent

Title of study: Effect of multiple roles on persistence of female students in distance education programmes in selected public universities in Ghana.

Dear Participant,

Thank you for accepting to be part of this research. Your participation is however voluntary. The purpose of this study is to ascertain the effect of multiple roles on persistence of female students in distance education programmes at the University of Cape Coast and the University of Education, Winneba. You are humbly requested to answer the questionnaire or respond to the interview questions with honesty. The responses you give will be treated with confidentiality and your participation in this study will remain anonymous. The responses you give to the questions in both the questionnaire and the interview will be solely used for the purpose of this study. However, your genuine responses to the questions will help in informing strategies that may help improve persistence of female students at the College of Distance Education and the Institute of Extension and Distance Education.

Please further indicate your willingness to participate in this study by signing below.

..................................................................................................................................  ........................................
Signature                                                                                                   Date

Thanks you for your participation.
Beatrice Asante Somuah
+233201188962
Kenyatta University
School of Education,
Department of Educational Management,
Policy and Curriculum Studies
TO WHOM IT MAY CONCERN

We wish to inform you that Ms. Beatrice A. Somuah, a PhD student of Kenyatta University and a staff of the College of Distance Education, University of Cape Coast, is conducting research for her Ph.D thesis on the topic “Effect of Multiple Roles on Persistence of Female Students in Distance Education Programmes in selected Public Universities in Ghana.”

It would be very much appreciated if you could offer Ms. Somuah the needed assistance to enable her collect data for her research.

We count very much on your maximum cooperation.

Opoku Oku-Afari
Ag. College Registrar

cc: Ms. Beatrice A. Somuah
Dear Sir/Madam,

INTRODUCTORY LETTER

I wish to introduce to you Ms. Beatrice A. Somuah who is a PhD student of the Department of Educational Management, Policy and Curriculum Studies of the Kenyatta University. She is researching on the topic:

“Effect of Multiple Roles on Persistence of Female Students in Distance Education Programmes in Selected Public Universities in Ghana”

I will be grateful if you could grant her the necessary assistance concerning data collection.

Thank you.

Yours faithfully,

Assoc. Prof. Francis Owusu Mensah (PhD)
Head, Centre for Distance Education - IEDE
University of education, Winneba
Tel: 0246041201
E-mail: francisowusumensah@gmail.com
APPENDIX VIII: Permission for Use of the College Persistence Questionnaire

College of Arts and Sciences
Dr. Wiley F. Smith
Department of Psychology
ASU Box 32109
Boone, KC 28608-2109
(828) 262-2272
Fax: (828) 262-2974

September 17, 2016

To Whom It May Concern

As owner of the copyright, I hereby grant Miss. Beatrice Asante Somuah permission to use the College Persistence Questionnaire for the purpose of conducting her thesis.

Hall P. Beck, Ph.D.
Professor of Psychology
APPENDIX IX: Female Students with Babies at a Face-to-Face session

NB: Permission was granted by study centre coordinator and the female students for the taking and using of the photos for this academic purpose only.
APPENDIX X: Father Caring for a Son at Face-to-Face Session

NB: Permission was granted by study centre coordinator and the partner of the female student for the taking and using of the photos for this academic purpose only.