Abstract
Nursing education is the formally recognized program of study providing a broad and sound foundation in the behavioral, life nursing sciences for the general practice of nursing resulting in leadership role and preparation post basic education in specialty or advanced nursing practice. This paper provides a descriptive account of nursing education in the Gambia, share its milestones and challenges based on a review of the literature. Nursing education is offered on a full time basis and free of charge for Gambian students attending public nursing institutions at the certificate level. These training institutions are under college and universities. In the Gambia, nursing education though slowly progressing, tremendous achievements have been made. Milestones registered are the development of an advanced diploma, graduate and post graduate nursing programs (MSc.) at the University of the Gambia, revised and updated curricula to meet the health care demands of the populace, attainment of post graduate degrees by most nursing faculty members and an increasing number of qualified student applicants wishing to take nursing as their professional career. Challenges are limited specialization areas, old text books and journals, shortage of faculty, poor e-learning facilities, lack of clinical tutors, in-country nursing journal, infrastructure such as limited classrooms space, non-functional skill laboratories and residential hall/campus. In order to enhance effective teaching-learning environment, these constraints need to be addressed so as to produce highly qualified, competent and educated nursing workforce capable to deliver quality nursing care and hence improve patient outcomes.

Keywords: Nursing education, Milestone, Challenges, The Gambia.

Introduction
Education is one of the most important instruments of change in any society and that any fundamental change in the intellectual and social outlook of any society has to proceed by an educational revolution including nursing education [1]. According to the International Council of Nursing (2014) nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings [2]. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles [2]. The term education comes from the Latin word e-ducere meaning “to lead out.” Education is referred as the process of imparting or acquiring general knowledge, developing the powers of reasoning and judgment, and generally of preparing oneself or others intellectually for mature life [3]. While, nursing education is the formally recognized program of study providing a broad and sound foundation in the behavioral, life nursing sciences for the general practice of nursing resulting in leadership role and preparation post basic education in specialty or advanced nursing practice [3].

In South Africa, nursing education has undergone dramatic changes from colonial training of white nurses, on-the-job training for black males and later women, to hospital based training and later higher education institutions [4]. In Nigeria, the training of teachers and administrators in 1965 led to the transformation of nursing education and practice with the establishment of Department of Nursing in the 17th conventional (face to face) universities in the country (private and public) of a Baccalaureate/Generic Bachelor of Nursing Science (BNSc) degree in line with the accepted minimum academic standard and curriculum of the National Universities Commission (NUC) for university based nursing program [5]. In Ethiopia, nurse training was revised at a national level to training of one category of a ‘comprehensive nurse’ who can function at all levels of health institutions and training of other nurse categories was discontinued in 1977. In addition, two years training of different types of nurses in most training institutions began to train clinical nurses, public health nurses and midwives. In 1994, a post basic Baccalaureate program was launched in Ethiopia, in the former Jimma Institute of Health Science [6].
In the Gambia, nursing education is offered free of charge to Gambia students attending public nursing institutions at the certificate level. Similarly, those at the graduate level have to apply for government scholarship which covers only the tuition fees for four years and is highly competitive. Both programs are full time and require students to complete their course of study within the stipulated period. In recent years there is increasing number of student applicants wishing to take nursing as their professional career. This is partly due to the shortage of nurses in the country and secondly, some students want to use it as a gateway to travel to the Western World. Furthermore, there are three different cadres of nurses in the country namely; Registered Nurses, Enrolled Nurses and Community Health Nurses each is characterized by a different orientation, entry qualification and course duration. The Bachelor’s Degree (BSc.) in general nursing and Master of Science (MSc) Degree, and Advanced Diploma in Community Health Nursing are offered at the University of the Gambia. The MSc is the highest degree in nursing education currently in the country. There is no doctorate (PhD.) program in nursing or other allied health sciences conducted in the country.

Studies that seek to understand the status of nursing education in sub-Saharan Africa are few including the Gambia. Therefore, the purpose of this paper is to provide an insight into nursing education in the Gambia, its developmental milestone and challenges. It will also help policy maker in understanding nursing education needs in the Gambia.

A Brief History of Nursing Education in the Gambia

The education and training of nurses before the 1950’s was conducted on the entrepreneurship model. When nurses were employed straight into the clinical area and taught the skills of the profession by senior staff in these areas. By the early 1960s, study periods away from the wards were given to staff nurses, the lecture and practical instructions been given by senior nurses and medical staff [7]. In 1964, under the auspices of World Health Organization (WHO) and United Nations International Children Emergency Fund (UNICEF), a school of nursing was set up, the first and only school of nursing that trains nurses for a period of three years in general nursing at the certificate level [8]. Furthermore, the entry requirement was general certificate examination (GCE) O’ level passes, but because of the problem of attracting enough school leavers, others with less qualification were admitted. By 1964/66, the school was staffed by WHO expatriates helped by Gambians. Meanwhile senior Gambian nurses were sent to other West African countries for teacher training and upon their return they took over the management and administration of the school [7].

The curriculum content took the traditional nurse training course with approximately, one third of the three year program spent in the class room for theoretical learning and the remaining two third in the clinical area for the practical work. Until 1978 the syllabus was centrally controlled by the then Department of Health now Ministry Health and Social Welfare (MoH &SW). In 1979, the School became part of Gambia College which consists of school of education, public health and agriculture. Indirectly the MoH &SW still had some control over the training of nurses because it paid an annual subvention to the college for the education and training of nurses on the three year program and for the post basic training in midwifery.

In 1980, the curriculum was revised and widens to include sociology, chemistry and physics, the aim was to help students understand more the care they give to clients/patients. English language was included in the first year of the training because the level of English with some students was considered inadequate for the program. To cope with the teaching of these subjects the help of outside lecturers particularly those of school of education was sought. In 1981, the Gambia became part of the West African College of Nursing, a body that advises the West African Health Community of nursing affairs and has as part of its responsibilities the monitoring of standards in nursing education and practice within its member countries e.g. Gambia, Ghana, Liberia, Nigeria and Sierra Leone. The annual intake to the school of nursing was 30-40 students, the attrition rate was 10% and the student teacher ratio in the 1980s was 1: 16 [7].

The Nursing Council of the Gambia

The Nursing and Midwifery Council (NMC) of the Gambia is a parastatal of the Government of the Gambia established by an act of parliament in 1989. It is the statutory body responsible for the regulation and control of nursing and midwifery training and practice in the Gambia. The council is the only regulatory body for all cadres of nurses and midwives in the Gambia. It is the only legal, administrative, corporate and statutory body charged with the performance of specific functions on behalf of the Gambia Government, in order to register nurses and midwives, and monitor nursing practice to ensure the delivery of safe and effective nursing and midwifery services to the public through quality education and best practices.

Furthermore, the Council advises the Ministry of Health on matters concerning the profession of nursing and midwives it also maintains and improves standard of training and professional conduct for nurses and midwives. Upon successful completion, graduates are awarded a professional certificate by their respective schools of training. These graduates do not take council licensure examination, meaning they are only registered and licensed to practice nursing by the NMC. The nursing license is required to be renewed annually. The council does not conduct accreditation programs for nursing programs in the country. This could be partly attributed to the fact that few training schools exist and secondly, very few experts are in the council to exercise this function. However, Council is greatly involved in the curriculum development and review, selection and final qualifying examination of the SONM, SEN and CHN Schools.

The Current Structure of Nursing Education in the Gambia

The structure of the education system in the Gambia provides for the expanded vision for basic education (Early Childhood Education, Basic Education 1-9, and adult and non- formal education). The formal system is characterized by nine years of uninterrupted basic
education followed by three years of Senior Secondary education and four years of post-secondary or tertiary and higher education.

As a developing country, the country has limited tertiary health institutions; five public training nursing schools; The Gambia College School of Nursing and Midwifery, an institution under the auspices of the Ministry of Higher Education, Research Science and Technology trains Registered Nurses (RN) who are first level nurses at the certificate level for a period of three years and higher national diploma in midwifery for eighteen months. The School of Enrolled Nursing trains second level nurses called the enrolled nurses (EN) for a period of two years and whose training is not as rigorous as the RN (due to lesser academic qualification), the Community Health Nursing (CHN) School trains Community Health Nurses with a very different orientation village –base for two years. All the three schools run a post graduate program in midwifery. Both the School of State Enrolled Nursing and Community Health Nursing schools are run by the Ministry of Health and Social Welfare [9]. The ophthalmic training school offers a post basic diploma in ophthalmology for one year and advanced diploma in ophthalmology (community and surgical focus) for one year. This program is run by the Sheikh Zayed Regional Eye Care Center together with the MoHSW.

University education is the key to the growth of the profession and nursing education programs in many parts of the world are offered at universities and colleges affiliated to universities including the Gambia. The primary business of the university is “liberal education” which is neither to inculcate virtue nor to prepare for a vocation, but rather to train the mind; that the values served by such mental training are not absolute but are none the less good in themselves and that the inculcation of a philosophical temper is of great service to society. The Gambia, Department of Nursing and Reproductive Health under the School of Medicine and allied Health Sciences is one of the departments of the University of the Gambia (UTG) which was established by an act of parliament in 1999, started training BSc in general nursing the same and in 2009 a MSc in nursing was established to begin developing nurses at the graduate level. It is the only government university that offers undergraduate and post graduate nursing education in the country. While the American International University- a private institution, trains BSc. in general nursing and other specialized areas such as peri-operative, anesthesia, and psychiatric for three years.

Admissions
This paper focuses on two institutions; the School of Nursing and Midwifery (SONM), Gambia College; and Department of Nursing, UTG. This is because the authors did their Registered Nurse training program at the SONM and are now serving as a lecturers at the UTG, Department of Nursing and Reproductive Health. There is an admission policy and selection criteria that is strictly adhered to during this period. Admission is done once a year i.e. at the beginning of every academic year. At the SONM, government allocates training for forty students in each cohort annually and admitted students are given automatic government scholarship. Moreover private student who have met the admission requirements are also accepted. In recent times under the Health System Strengthening Program, the National Aids Secretariat decided to train additional batches of nurses to complement government’s efforts towards the acute shortages of nurses in the country. The entry requirements for the Registered Nurse Certificate is five West African Senior School Certificate Examination (WASSCE) credits including English language and any other four credits in the Sciences such as Mathematics, Further Mathematics, Biology, Chemistry, Physics, General Sciences, Food &Nutrition, Health Sciences and Physical Education. The requirements for the Higher National Diploma in midwifery states that the applicant must be a registered nurse with at least two years working experience, in addition to the above WASSCE qualification [10].

Similarly, the entry requirements for both the Bachelor’s and Masters’ degree nursing programs at the UTG require that students must have satisfied the prescribed minimum conditions of university for admission to the degree course and fulfill the requirement for the program. The direct entry (4 years BSc.) requires candidates holding the Senior Secondary School Certificate with credit passes in English language, and Mathematics at not more than two sittings and any other three science course i.e. Biology, Chemistry, Physics, General Sciences and Further Mathematics. The other tract is meant for nurses with the RN certificate and wish to obtain a bachelor degree in nursing (BSN) program (RN to BSN). This requires candidates to be a registered nurse for a minimum period of two years. In addition students should be in possession of the GCE, Ordinary Level, or the WASSCE, with five credit passes in English and Mathematics at not more than two sittings and any other three sciences courses such as Biology, Chemistry, Sciences, and Physics. Advanced standing credit for some of the courses that were already taught during their general nursing courses are waived. The program duration is two years six months. The focus of the programs is in general nursing geared towards the student’s learning needs, societal needs, philosophy of nursing, learning theories and professional standards. The program forms the basis for the practice of nursing. It further develops students’ affective, cognitive and psychomotor skills in problem solving. In addition to the UTG entry requirements, BSc. in nursing is an added advantage for the MSc. program. However, there are provisions for matured students to be admitted.

The Curriculum
The curricula of both schools, which have been planned and designed to meet national and international education criteria, as well as professional and regulatory requirements for practice, have a demonstrated theoretical basis and exhibit a balance of theory and practice. The focus of both classroom and clinical education is on knowledge, attitude and practical skills needed to meet the health needs of Gambia’s population. At the Gambia College, SONM the curriculum is based on a 12 module plan spread over a period of three years. Where one third of the curriculum is spent in the class room for theoretical learning and the remaining two third in the clinical area for the practical work [10]. At the UTG, Department of Nursing, the BSc. Direct entry is based on 37 courses schedules having a total 131 credit hours. Out of
these courses 12 are general education courses to be taken by all nursing students together with other university students, 6 courses to be done by all students under the Faculty of Medicine and Allied Health Sciences and 19 core nursing course which is a must for all nursing students. These course are backed by practical sessions in the clinical area [12]. The curricula at each program demonstrate the core content that will enable graduates to meet the established competencies stated in the WHO Standards (2009). Supervised clinical learning experiences that support nursing theory are included in the practical portion of students’ education. The both curricula are revised and updated every two years to incorporate current diseases, guideline and management. Regarding the MSc, students are required to complete a minimum of 42 semester credit hours and to submit and defend a thesis on their area of specializations in community health. The Advanced Diploma in Community Health has 17 courses, 14 theoretical and 3 field projects. The West Africa Health Organization (WAHO) has produced harmonized training curricula for general Nursing and Midwifery, BSc CHN and these two training institutions are currently working on the BSc Nursing and Midwifery Curricula. The contents of these curricula are expected to be incorporated in the Nursing and Midwifery training programs in the Sub-region, thus ensuring safety of practice through the provision of standardized nursing education and practice that caters for emerging trends and changes in disease patterns in the sub-region [13].

Faculty Members
The UTG’s guidelines for the Department of Nursing require core academic faculty to be nurses who demonstrate knowledge as educators with a minimum of a bachelor’s degree, and preferably with a graduate degree. To that effect, all faculty members in the department have fulfilled this part. Furthermore, the current Head of the Department at the UTG, is the only faculty member with a PhD. However, three of its faculty members are on study leave pursuing PhD in their respective area of specializations. Other lecturers are appointed on a semester basis serving as adjunct lecturer to the department. Similarly, the School of Nursing also requires lecturers to have a minimum Bachelor’s degree in order to teach and this has been meeting by all faculty members. The Head of School at the SONM is a MSc. Degree holder couple with other members of staff. Furthermore, clinical preceptors, who are Registered Nurses with RN certificate, HND in Midwifery or bachelor’s degree with clinical expertise, are designated to teach and supervise students in the clinical setting in a specific content area. These two nursing programs have formed partnerships with staff from hospitals and other clinical sites to be clinical preceptors. Interdisciplinary education is common due to a shortage of nursing faculty. Other health professionals from other departments who provide guest lectures in the nursing program hold graduate degrees and possess expertise in their specialty, such as laboratory, anesthesia and pharmacy are utilized to provide lectures on content appropriate to their field of expertise. Moreover, written weekly/ monthly/semester teaching plan that identifies who teaches what and when are circulated for faculty to append their signature consenting to teach that particular area.

Students’ Assessment
Ladyshewsky describes assessment as an essential and necessary component of professional competency measurement [14]. The programs have in place a system of formative and summative assessment of their educational and clinical objectives and outcomes. In the SONM students have weekly written test base on the previous week’s class sessions. Couple with their end of module practical assessments, it forms the formative part. A final written qualifying exam is conducted at the end of the three year program. While at the UTG, nursing students write continuous assessment exams during the mid- semester, make seminar presentations and submit assignments to form the formative assessment. At the end of each semester written exams and practical assessment in the clinical area forms the summative assessment.

Milestones towards Reforms
Milestones in nursing education in the Gambia, even though slow, is progressing immensely. These include the development of an advanced diploma, graduate program and a two year post graduate program at the UTG. The RN-BSN program started at the same time with the University of the Gambia (1999) and have since graduated up to two hundred students including the authors themselves. Similarly, the first cohort of the graduate program (direct entry) was commenced in August 2010 with twenty five students. Twenty –two have successfully completed and posted in different health facilities throughout the country. The first cohort of the MSc program in nursing education and administration commenced in June 2009 with 6 students. This batch has since graduated and are occupying senior positions in the countries health care system ranging from nurse mangers, to nurse tutors. Njie-Carr, Adeyeye, Marong and Sarr for the MSc in Community Health Nursing program were enrolled in the summer of 2011 [11]. As of summer 2016, 51 students have been enrolled with high retention rates ranging from 81% - 100%. Sixteen students have successfully completed and graduated from the program. The introduction of the Advanced Diploma in Community Health in 2007 and has since graduated its first cohort. Equally the SONM has been steadily and consistently producing a magnificent number of nurses and midwives since its inception. All these graduates are manning senior positions in the health care system in the country. The certificate program in midwifery has been upgraded to Higher National Diploma and the EN to RN conversion program started in 2004. The EN-RN is to upgrade this second category of nurses to first level nurses provided that they meet the admission criteria. These programs are full-time and require students to complete their course of study within the stipulated period. Secondly, most faculty members have attained post graduate degrees either within or outside the country. The both curricula are revised and updated every two years to incorporate current diseases, guideline and management

In a bit to foster international collaboration, the Department of Nursing, at the UTG, has signed an agreement creating a network for inter-university co-operation in teaching and student exchange with Kristianstad University in Sweden. Where Gambian nursing students have to spend three months in Kristianstad University.
registering courses such as international health and Swedish student nurses spend six weeks in the Gambia, practicing in areas such as primary health care, maternal and child health. Similarly, UTG nursing lecturers have to spend three weeks in Kristianstad University participating in lectures (both theory and practical sessions) and interacting with students and lecturers in the nursing departments, Vis-Vis lecturers from Kristianstad University. This is hoping to enhance student learning outcomes and improve the teaching skills of lecturers. Similarly, in recent years there is increasing number of student applicants wishing to take nursing as their professional career. This is partly due to the shortage of nurses in the country and secondly, some students want to use it as a gateway to travel to the Western World due to better pay and working conditions.

Challenges for the Reforms
Limited availability of resources in developing countries tantamount to numerous challenges that students must overcome to be successful. In The Gambia, one of the challenges faced by these two nursing institutions is the shortage of faculty members due to the brain drain of highly qualified and educated nurses migrating from their home country to countries with higher salaries and better working conditions. Secondly few people are interested in the academic field may be because it is too demanding with lesser pay. Only, very few lecturers have training on post graduate certificate/ degree in nursing education and yet still all are taking leading roles in academia in these tertiary health institutions. Another challenge encountered is the lack of clinical tutors. Student nurses are posted to health facilities to be supervised and assisted by senior nursing officers in the clinical area who might be too busy to attend to the learning needs of these students thus, leaving a big gap to be filled.

The teaching/learning space is very crucial in nursing education. Challenges related to infra-structure include classroom space, poor internet connectivity, interrupted electricity, and lack access to peer-reviewed journal articles [11]. The current infrastructure at both programs needs expansion in order to accommodate the increasing number of students particularly when other programs such as the medicine and RN classes are held simultaneously. The classes can accommodate about 40 students but in the recent past the intake number has increased. There are few LCD projectors and no interactive boards. Furthermore, equipment in the skill laboratories are very paramount in learning, these need updating to meet current standards and include mannequins, patient beds, and basic nursing equipment (sphygmomanometers, weighing scales, thermometers, etc) for an adequately functioning skills lab. Simulation facilities are available but have older models. The libraries at both programs need upgrading as many of the text books and journals are outdated by ten or more years. Some of the books in these schools are donated by student alumni association or individual in the Diaspora. According to Njie-Carr, Adeyeye, Marong and Sarr though the University of the Gambia subscribes to HINARI, the WHO-sponsored access to academic databases, students and faculty are unable to access it because of slow Wi-Fi connectivity or lack of electricity affecting the service at the University of The Gambia [11]. Similarly, there is no dedicated computer laboratory for UTG nursing students and internet speeds are slow, limiting downloads.

In these two training institutions, there are limited specialization areas. Both basic programs are in general nursing with only one post basic program, the HND in midwifery offered at the college while the UTG has only one specialization tract at the advanced diploma and MSc. degree levels in community health. This could be attributed to the few PhD faculty members in the department and the country in general. Moreover, in Nigeria, there are twenty-seven post basic nursing education programs including mental health-psychiatry, midwifery, and peri-operative nursing, education program among others [4]. Furthermore, there is no in-country nursing journal. Compared to other developing countries such as Nigeria where many research nursing journals are also being produced such as the Nigeria Journal of Nursing, International Professional Nursing Journal, the West African Journal of Nursing, the Nursing and Midwifery Council of Nigeria Research Journal. All these Journals are produced in a bid to further advance research and to change the face of practice, education and management in nursing [15].

Residential campus for student nurses is also a challenge face by nursing students at the UTG. This allows students to interact, socialized and has ample time to study and concentrate on academics hence enhancing learning. Finally, students experience personal financial challenges particularly at the post graduate program especially those that are not sponsored by their employees. According to students’ encounter difficulties to pay for tuition fees. It costs D160, 000 (Dalasi; D1 = $43) for two years of full-time course work including Master’s thesis on a research project [11]. Studies have shown that the South African Nursing Council, Nursing and Midwifery Council of Nigeria and the Ethiopian Nursing Association have identified certain strategies to overcome such problem through collaboration with and financial support from organizations such as WHO, Canadian Nurses Association, Royal College of Nursing, United States Agency for International Development, UNICEF and World Trade Organization for funds for those willing to pursue higher degrees in nursing education [4].

Conclusion
Quality nursing education is an essential contributor to health care delivery systems. In the Gambia, nursing education though slowly progressing, tremendous achievements have been made. Milestones registered include the development of Advanced diploma, graduate and post nursing graduate programs at the University of the Gambia; conversion program from EN to RN, upgrading from certificate to HND in midwifery offered by the SONM, revised and updated curricula, increased number of nursing applicants, and the attainment of post graduate degrees by most faculty members. Common challenges are limited specialization areas, old text books and journals, faculty short age, poor e-learning facilities, lack of clinical tutors and in-country nursing journal, student residential campus, infrastructure such as limited classrooms space and non-functional skill laboratory. However,
in low resource countries such as Gambia, these challenges need to be addressed so as to produce highly qualified, competent and educated nursing workforce capable to deliver quality nursing care and improves patient outcomes.

**Recommendations**

Based on the foregoing revelations, the following recommendations are made:

- Expansion for more specialization areas in nursing e.g. anesthesia, education, psychiatric
- Current nursing text books and journals
- Recruitment of more faculty member to cope with the high intake
- Proper e-learning facilities including computers, internet, interactive boards, LCD projectors
- Employment of clinical tutors
- Establishment of an in country nursing journal in the schools
- Building more classrooms space
- Functional skill laboratory to enhance better teaching – learning outcomes
- Funding for those willing to pursue higher degrees in nursing education and building of residential campus/hall for students.
- Training of lecturers on educational skills

**References**

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