

Nursing Practice in Urology in Ghana: Current Realities and the Need for Structured Specialty Training

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Abstract

Nurses play a central role in optimizing patient outcomes with specialty training offering the most benefit. As urology services expand, skill gaps across outpatient, inpatient, day-care, and operative settings limit efficiency, safety, and the patient experience. This write up is based on observations of urology practice in five centers in Ghana and two centers in Nigeria. In Ghana, and some countries in the West Africa Sub-region, formalized specialty training for nurses practicing in urology centers was absent. There is the need to establish curriculum-based specialty nurse training programs in urology that takes into consideration the peculiarities of urology practice in Ghana and the West African subregion to advance patient care.

Keywords

Urology, Specialty Nurse, Training, Ghana, West Africa

1. Background

The nurse practitioner has been considered pivotal in the health delivery system playing crucial roles in the provision of variety of critical health services [1]. It has been observed that patients had better experience and recover faster with good nursing care after post graduate education in urology [2]. Beyond the basic general nursing care, various specializations in nursing have emerged such as midwifery,

anesthetic assistants, critical care nursing, pediatric nursing, peri-operative nursing and Public and Community Health nursing and ophthalmic nursing [3]. These specializations have emerged to get nurses trained and so acquire additional knowledge and skills that allow them to competently support these specialties. It has been observed that increasing the skilled nursing workforce and providing specialty nursing training remains a significant need [1].

Specialized training of nurse practitioners to offer service in Urology practice in Ghana has however lagged this development.

2. Approach

This write up was based on observations in urology centers, focusing on the work of nurses practicing in five centers in Ghana and two centers in Nigeria. These sites were selected because they have specialized units designated specifically for urology practice.

The observations were guided by finding answers to key questions, including, the scope of work and areas where nurse practitioners were stationed within the urology units, whether nurses received any formal specialist training before or during their placement in the urology centers and whether the nursing staff were rotated or were permanently stationed in the units. Where clarity was needed, a Nurse manager was contacted for further information.

3. Findings and Discussion

3.1. Workstation

In terms of their workstation, the nurse practitioners have been delivering services at the outpatient departments, in-patient wards, emergency resuscitation areas, day care units such as endoscopy suits, and theaters (Figure 1).



Figure 1. Urology center, Korle Bu teaching hospital, Accra.

3.2. Out-Patient Care

The role of the nurse practitioner working in urology outpatient's department include reception of patients and orderly arrangement of the patients for the urology clinics. In Ghana and the West African sub-region where there are only few specialist Urologists [4], these clinics run late. With a significant proportion of the patients being elderly, special care is needed to support such patients. These patients may show signs of dementia, visual impairment, hearing defects and poor mobility from musculoskeletal abnormalities. They also have a high incidence of other comorbidities such as hypertension and diabetes mellitus [5], requiring special care. Unfortunately, as there is no formalized specialty training for the nurse practitioners, the reception of these patients is done in sub-optimally conditions with lack of preparation for emergency resuscitation protocols, equipment and medications.

The need for mobility aids such as wheelchairs and, Zimmer frames are not readily available with patients having to bring their own mobility aids for the outpatient consultations.

A well-structured training section in cooperating emergency resuscitation and communication skills will improve the urology outpatient experience for the many urology patients and prevent near misses at the clinics from hypoglycemic attacks and falls. The importance of prioritizing the frail could also be emphasized in a structured training program to improve the patients and clients experience (Figure 2).



Figure 2. A urology outpatient clinic session.

3.3. In-Patient Care

The admission ward offering urological service have specialty-based needs and equipment to give optimum care. In Ghana, where lower urinary tract symptoms

due to prostate diseases is the major cause of these admissions, the need for urethra and supra-pubic catheter management is on the high [6]. The setting up of such needed medical items such as correct size of urethral catheters, catheter introducers and supra pubic cystostomy sets are often delayed due to lack of training that anticipates the likely needs of the in-patient. Advancing the training further will allow nurses to be able to pass urethra catheters safely without trauma and the risk of infection as well as expertly offer post operative nursing care. Currently, these services are performed by trained medical doctors. An advanced training will free the limited manpower as relates to urologists and other medical doctors so they can be deployed efficiently in other areas of service.

These services could be extended to the community, where patients with long term catheters due to delay in getting theater dates or have been considered to need long term urethra or supra pubic catheters could be attended to at home. Such patients in current practice are transported to the hospitals over long distances to have catheter changes with the attendant cost and inconveniences to such elderly or incapacitated patients [7].

Haematuria from bleeding prostate diseases, bladder tumours and renal tumours are also encountered in the urology wards with these being the commonest Genito-urinary cancers encountered in the West African sub-region [8]. These require adequate resuscitation, passage of three-way catheters, frequent bladder washouts or bladder irrigation to prevent clot retention. While these services are directly performed by medical officers and consultant urologists on the wards, training of specialized urology nurses, will allow them to participate fully in the management of these patients. Currently, while they set up for these interventions, they must wait for higher caliber staff to perform these procedures leading to delays before patients get the needed relief, affecting the overall patient experience. In instances where nurses have offered to do these, it had been by long years of observation without any formal training. A well-structured specialty training program in urology for nurses will allow nurse practitioners to have the needed skill to perform these services without the need for supervision enhancing the overall patients care experienced.

The training will also improve the competencies of nurse practitioners in the care of nephrostomy tubes, stents and stoma bags as currently there are hardly any trained stoma nurses to support urology practice in Ghana with most patients in the west Africa region having very little information in the care of their stomas [9].

The urologist is expected to offer surgical procedures such Trans ureteral resection of prostate, and formal Suprapubic Cystostomy.

The specialty trained nurse urology will be expected to perform change of urethral catheters, stoma care, and Stab Suprapubic Cystostomies. They however will be expected to perform protocol-based procedures such as post operative management/ care of major surgeries such as trans Urethral Resection of the prostate, Radical prostatectomy, and Radical Cystectomy with urinary diversion.

3.4. Day Care Urology

In the day care setting, nurse practitioners are stationed in the endoscopy, urodynamic and biopsy suits. Their support in these areas is critical to the success of these procedures. They are usually deployed without any prior training in these specialized areas as relates to the care of the equipment's, following established protocols on patient care before and after procedures. While some urologists take time off to offer the attending nurses' familiarity to the process, these are not in depth to provide the needed skill and confidence so the nurse practitioner can perform unsupervised.

Training of nurse practitioners in the urology day care setting will help improve the safety of practice as they will be equipped to identify patients with conditions or those on medications considered not supportive of the intended procedures or considered contra-indicated to prevent unintended adverse events. It will also position them to detect early complications of procedures carried out such as post biopsy bleeding allowing early intervention that could be lifesaving, improving the overall experience and outcomes of these procedures.

These nurses may become the first point of call in cases of post procedure complications such as infections after a prostate biopsy as they are more accessible being close to the patients [10].

New skills may be acquired. The study by Bennett *et al* indicates that with specialized post graduate training for nurses and other health professionals showed the acquisition of new skills by the nurses that included the performance of biopsies and flexible Cystoscopies [2].

Currently to serve the large number of patients with indwelling catheters waiting to have access to permanent interventions, some sections have been designated as catheterization units or rooms where regular catheter changes are performed [11]. These are manned by nurses. The absence of in-depth knowledge on the use of accessory devices such as catheter introducers and placement of suprapubic cystostomy catheters leads to patients with difficulty in catheter placement, having to wait for long periods or being transferred to other units of the urology set up for such procedures to be carried out. A structured training of these nurses could make these interventions timely.

3.5. Major Theaters

The major theatre suits for urology practice have trained peri-operative nurses that supervise the theaters. As part of the curricular of the training of peri-operative nurses, for example the peri-operative school at the Korle Bu Teaching Hospital in Accra, Ghana, the nurse practitioners receive didactic lectures and tutorials on some common urological conditions and their surgical management. This span a few lecture sections with work in the urology theater being one of many options of in-theater practical experience available during the training to be chosen.

Trained peri-operative nurses supervise or are engaged directly in urology theater sessions as scrub nurses for urological surgeries occur in the teaching hospi-

tals. However, in regional and private specialized hospitals, the theaters tend to be manned by nurse practitioners who have acquired experience in theater practice by way of long service in the theaters. Where there are certified peri-operative nurses, their practice involves supporting surgeons from different subspecialties and hence they have no in-depth knowledge as would be expected of specialty trained nurses in urology. Some of the limitations of their practice include knowledge of some procedures and their demands, and the use of devices such as laser machines and coagulating devices and the safety protocols related to their deployment. Thus, specialized training in urology for the nurse practitioner will need to be extended to the peri-operative nurse working on patients coming for urology surgeries to improve on the safety and efficiency of urology practice in the sub region.

3.6. Workforce and Placement

In most hospitals in the subregion, placement of nurses as staff in units and departments are governed by general policies. These include initial placement based on the availability of staff and staff needs at the time of reporting with subsequently movement to a new unit based on annual rotation policy of nursing staff in the facilities. This practice results in experienced nurses who have acquired skills due to long associations being transferred to some other units. This therefore results in less experienced nurses being brought to the urology units who then must begin the process of observation and getting acquainted to the demands of this specialized field.

There is a general lack of nurses globally with increasing migration of nurses to high income economies to practice [12]. Thus, additional training of staff allows an increased care output from a relatively low number.

It has been observed that most health institutions in the subregion operate with health staff numbers less than of the ideal numbers [12]. The current attrition rate will require that a more formalized training of nurse practitioners in urology be implemented to allow for more practitioners to be trained.

The perceived advantage of well-trained health personnel to support safe practice in a particular specialty has been adopted in the setting of surgical outreach to communities with limited resources. Visiting surgeons have been observed to go on these outreaches with their “own nurses” to enhance the delivery of service and for patient safety. This practice has been observed in international organizations who offer access to quality urological care in medically underserved areas such as the International Volunteers in Urology [13] as well as other teams of urologists offering cross border services in renal transplantation. These teams take advantage of their visits to offer training in urology practice to the local Nurse practitioners [13].

3.7. Recognition of Nurses Supporting Urology Practice

Some international professional bodies such as the Société Internationale d’Urol-

ogie (SIU) integrates urology nurses into its global educational initiatives through dedicated programming. These include the SIU Global Nurses' Educational Symposium with the SIU congresses providing a collaborative platform for nurses, specialists, and trainees for urology care advancement [14].

3.8. Training and Certification

In some subregions, specialty nurse training in urology is offered to provide in-depth knowledge and practical skills necessary to manage conditions of the urinary tract and male reproductive system. The training programs range from short courses to specialized certifications, focusing on inpatient care and outpatient procedures. The Certified Urologic Nurse practitioner (CURP) certificate administered by Board for Urologic Nurses & Associates (BUNA) attests to such competencies offering expert recognition, professional credibility and ultimate career advancement [15].

The cost involved in subscribing to these organizations and the re-certifications required is beyond the budget of nurses from the West African sub region with most of the countries being low-income economies.

In the West African sub-region, nurses by way of long service acquire skills in surgical sub-specialties. However, they are often transferred to other units as part of annual general nursing reshuffle that pertains in many health institutions in Ghana and the sub region.

Certification confers on the trained nurse practitioner the permanency in specialized areas such as pertains for peri-operative nursing and critical care nurse specialist who stay on in theaters and the intensive care units respectively after training. However, without certification, the nurse practitioner is still regarded as possessing a general nursing certification and hence are subject to in-hospital transfers and elevation to offer administrative duties irrespective of the number of years one might have been practicing in a particular sub specialty and the expertise and skill in patient management peculiar to that specialty that has been acquired. Specialty training of nurse practitioners in urology that comes with certification is of utmost importance and need to be pursued to improve urology services in the West Africa Sub region. A subregional based program will allow imputing local disease patterns, available resources and cultural factors into the training program. A collaboration between a university in the United States, a Ghanaian university and a Ghanaian teaching hospital led to the development of an emergency nursing diploma program with the expected outcomes of the training program being: a) an innovative, interdisciplinary, team-based clinical training model, b) a unique and low-resource emergency nursing curriculum and c) a comprehensive and sustainable training program to increase in-country retention of nurses [1].

3.9. Mode of Training

While it has been traditional to train specialized nurses in an off institution setting

with nurses taking study leave for the training, the current lack of nurses and the need for urgent bridging of the skills gap may call for programs that adopts a training system with well-designed curriculum to guide the process. The curricular might have to consider peculiarities of the West Africa Sub-region such as safe catheterization and the use of devices such as catheter introducers to avoid complications of urethral catheterization and infection prevention. Safe urinary bladder washout and the management of urinary bladder irrigation might also be of importance in this curricular including the management of stomas. Including these training in national colleges of nurses may be recommended.

Institution-based training of dedicated nurses in neurosurgery in Nigeria in neurosurgical care facilities resulted in the rapid growth of new neurosurgical units, facilitated nursing expertise and improved outcomes of patient care when compared with the lack of neurosurgical training for nurses [16].

4. Suggested Training Framework

The proposed training framework will include a background on urology as a specialty, the purpose and objective of the programme which is to training specialty nurse practitioners to support the delivery of urology practice. The philosophy is getting specialty nurse training for them to acquire new skills to enhance delivery as either independent, protocol directed or supervised by urologists.

The core competencies will be grouped into those skills that can be done independently such as catheterization, stab Supra-pubic cystostomies and ultrasound guided biopsies, protocol-based activities such as post operative care and recognition of complications and situations that need urgent care. The entry requirement might be those with a bachelor's degree in nursing and either practicing in a urology facility or have interest in pursuing urology as a nurse specialty program. The training site will be teaching and regional hospitals which have equipped urology centers/units and providing urology services with specialist Urologist as medical staff.

Assessment methods may include written examinations, procedure demonstration and objective structured clinical examination.

In Ghana, nurse specialty program could be certified as fellowship by the Ghana College of Nurses and Midwives. In other West African countries, the postgraduate master's program could be adopted such as MSc in Urology (Nursing) [17].

Continuous professional development programs may be instituted allowing accumulation of enough points in a year for a certified specialty nurse practitioner to be kept on the register.

5. Limitations

This write up was based on observations made in 5 centers in Ghana and two in Nigeria (two countries in the West African Subregion) and therefore may not be representative of all countries in the sub region.

6. Conclusions

Access to urological services is expanding in Ghana and some West African countries, however the training needs of Nurse practitioners to support the services is lacking. There is no structured specialty training for nurses practicing in urology departments and units with most acquiring skills on the job. Due to lack of certification, these nurses are part of the general pool and are subjected to institutional reshuffling of nursing staff interfering with further professional development.

There is the need to establish formal specialty nurse training programs with accompanying curricula that takes into consideration the peculiarities of urology practice in Ghana and West African subregion.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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