

Nurse Delegation Decision Making

Weatherspoon, D, Sullivan, D

Wilson, D.R & Parsons, L.C

Deborah Weatherspoon, **PhD, RN, CRNA, COI**

Middle Tennessee State University

Debra Sullivan, **PhD, RN, CNE, COI**

Tennessee State University

Debra Rose Wilson, **PhD, MSN, RN, IBCLC, AHN-BC, CHT**

Middle Tennessee State University and Walden University

Lynn C. Parsons, **DSN RN NE-BC**

Morehead State University

Corresponding Author:

Debra Rose Wilson, PhD, RN, IBCLC, AHN-BC, CHT

Associate Professor, Middle Tennessee State University

Murfreesboro, TN. 37132 – USA

Faculty

Walden University

Minneapolis, MN. 55415 – USA

Corresponding Author: debrarosewilson@comcast.net

Abstract

Nurse practice in today's world requires that nurses be adept at directing a multi-skilled and diverse workforce. In the U.S. the registered nurse must be clinically competent while simultaneously be knowledgeable of their practice guidelines to ensure safe and effective patient care delivery. In South Africa nurses practice under the South Africa Nursing Council Nursing Act guidelines; in the United States the National Council for State Board of Nursing provides rules and regulations for nurse practice. Nursing care practice guidelines, including delegation, are regulated by individual state boards of nursing with written nurse practice acts in the United States of America. The shortage of nurses may have an impact on safe and effective care to individuals with complex, acute, and chronic health care. Delegation of nursing procedures must be done in both countries to facilitate prudent use of the nurses' time for higher-level duties. In the United States increased longevity and expensive interventions directed toward preventable disease, and in South Africa the Acquired Immune Deficiency Syndrome epidemic are taxing health delivery resources in our respective countries. Clearly, the nurse must include management expertise, and especially nurse delegation in their practice skills repertoire. This article will share delegation via patient care management and decision-making models; review the nurses' role in specialty nursing areas; and offer strategies to best use the existing workforce, which includes unlicensed health care workers.

Keywords: *delegation, delegation decision-making, licensure*

Introduction

South Africa (SA) and the United States (US), as well as other nations are experiencing significant nurse shortages to the point that workforce deficits are at a crisis level. Strategies to augment the professional or registered nurse (RN) workforce through employment of lesser skilled health care workers, some of whom are unlicensed, have been adopted. For this reason, nurses must learn and become skilled at safely delegating tasks to a diverse workforce, including assistive personnel (AP). This

purpose of this article is to review delegation and delegation decision-making strategies that can be used by nurses to facilitate safe care delivery while allowing the nurse to reserve their time for higher level skills. Systems theory and pragmatic delegation decision-making models will be examined. Further, delegation by advanced practice Registered nurses will be reviewed.

Concepts

Delegating patient care to others on the health care

team is within the registered nurse scope of practice in the United States (Bystedt, 2011) however, most RNs find delegation a difficult skill to put into practice. Therefore, it is important to teach delegation decision-making skills in nursing programs and to offer staff development/in-service sessions to practicing nurses. Conger (1994) supports that the concept of delegation can be taught to students and practicing Registered nurses, thereby ensuring delegation competencies integral to nurse practice. Research further supports that teaching delegation in multiple acute care specialties increases nurse delegation knowledge, confidence in making sound delegation decisions, and job satisfaction (Parsons, 1997). Specifically, nurses felt their decision-making autonomy and promotional opportunities were enhanced when they used delegation in their practice.

Delegation has been described as a nursing art and a special talent. In the United States RNs may delegate to a variety of allied health care professionals. Licensed Practical Nurses (1 year training from a vocational school) can provide effective uncomplicated bedside care and medication distribution under the direction of an RN. Certified Nurse Technicians receive 6 weeks of training and can assist with patient hygiene, vital signs, and ambulation. Practice of each of these assistive health care professionals (AP) is licensed and regulated by each state's Board of Health.

Having the skill of delegation is essential to effective time management and productivity for acute care nursing practice in the US (Buchwach, 2011). The US National Council of State Board of Nursing (NCSBN) and the American Nurses Association (ANA) believe that effective nurse delegation decision-making is crucial for excellence in nurse practice which will lead to safe and effective patient care delivery (ANA, & NCSBN, 2006). The American Nurses Association (ANA, 2005) defined delegation as transferring responsibility for the performance of a task from one individual to another *while retaining*

accountability for the outcome. Although the NCSBN defines delegation as the RN transfer of authority and the ANA defined delegation as a transfer of responsibility, both organizations agree that the RN can direct other team members to perform a task they would not normally perform; however, the nurse would retain accountability for the delegated task.

Delegation Principles

In 2006, the ANA and NCSBN released a joint statement that outlined the nine principles of delegation specific to the RN role. The principles of delegation include

1. Accountability and responsibility for nurse practice,
2. Determination of assistive personnel (AP) and direction of overall patient care,
3. Delegation of components of care, The RN components of the nursing process, assessment, planning, evaluation, and nursing judgment cannot be delegated,
4. Decisions to delegate based upon RN clinical judgment contingent upon patient condition, skill level of team members, and the level of supervision needed to safely deliver patient care,
5. Delegation of tasks that other team members have the knowledge and capability to perform,
6. Clear communication and verification of understanding about delegated tasks to AP,
7. Communication is shared between the RN and the delegate whether another RN or AP,
8. Uses clinical judgment and critical thinking for appropriate delegation, and
9. The nurse executive at the hospital or other facility is accountable for ensuring that effective systems are in place to assess, supervise, and provide ongoing communication to maintain effective nurse delegation in all practice settings.

Responsibilities

Nurse practice acts vary from state to state in the US and from country to country globally; however, all of the nurse practice acts address nurse delegation. Approximately half define delegation outright and the other states address delegation under the umbrella of supervision. In the U.S. the state nurse practice acts address the legal parameters that guide the RN in delegation of nursing care (Hudspeth, 2007). The RN has the authority to delegate patient care to other qualified team members who are competent to perform that task.

Accountability cannot be delegated.

Important to the provision of safe and competent care is the Registered nurses knowledge of delegation and what tasks/procedures can be legally delegated within their scope of practice as defined by their respective state nurse practice act. The RN is accountable for all delegation decisions made (Cipriano, 2010). *Accountability cannot be delegated.* The RN could be at risk for losing the license to practice if delegation is inappropriate (Eaton, 2009).

An example of how the state of Tennessee outlines delegation of patient care to AP is as follows: (1) The RN is accountable for patient care and determines what can be safely delegated to AP, (2) the RN only delegates tasks/procedures to staff that are qualified to execute the task/procedure, (3) the RN has the right, authority, and responsibility to delegate patient care activities, (4) the RN assessment of the patient's condition influences delegation decisions and is guided by the Five Rights of delegation.

- Right Task
 - Right Circumstance
 - Right Person
 - Right Directions and Communication
 - Right supervision and evaluation
- (Tennessee Nurses Association, 2009).

Nurses in South Africa and the United States need definitive guidelines to safely practice clinical nursing and to direct and develop a multi-skilled workforce. The state nurse practice acts in the United States and the South Africa Nursing Council Nursing Act

guidelines should provide standards to effectively supervise a diverse workforce. It is imperative that nurses are aware and function within their scope of practice set forth by their state/country practice guidelines. Equally important is that nurses delegate only those activities which the AP is competently trained to perform.

Barriers

One of the biggest barriers to effective delegation by RNs is lack of confidence in delegation skill and inadequate training on delegation (Conger, 1993, 1994; Parsons, 1997, 1998, 1999). Table 1 displays other reasons Registered nurses cite as a difficulty with delegation in practice. There is a lack of fiscal resources in many health care facilities to provide continuing education and staff development to practicing RN's on safe delegation in practice. In the United States and South Africa RNs may fear legal repercussions for delegation errors and are concerned about being responsible for all aspects of patient care. The fear increases when a high number of AP are included in the unit staffing plan. To reduce this concern and increase confidence for delegation it is important for nurses to understand guiding principles of delegation.

Communication

Communication by the RN is important in the provision of safe, effective care and attainment of quality patient care outcomes (Anthony & Vidal, 2010). Communication is the founding principle of the five rights of delegation and instrumental in shaping quality and safety outcomes (Anthony & Vidal, 2010). However, in a qualitative study conducted by Standing and Anthony (2008) the authors indicated that although communication was thought to be the most important element in regards to delegation, it was still a significant barrier. Most problems occurred when people did not communicate effectively.

Interpersonal Relationships

Team members are most effective and collaborative when they follow an RN who they trust. Lack of a trusting relationship can impede effective delegation by the RN and learning the skill level of all team members. The RN may choose to perform the task versus making a delegation error and risking liability. Appropriate delegation builds trust and includes supervision to determine that the delegated task had

a desirable outcome (Kleinman & Saccomano, 2006).

A qualitative research study undertaken by Bittner and Gravlin (2009) was conducted to learn how nurses use critical thinking to delegate patient care to team members. The researchers determined that effective delegation was contingent on these four elements, (1) work relations among Registered nurses and team members, including AP, (2) communication, (3) systems management support, and (4) nursing leadership. Poor communication and or weak interpersonal relations between members of the healthcare team can lead to harmful patient outcomes. Ineffective communication, a lack of communication for delivery of needed patient care, distrust, and negative attitudes have been linked to missed or delayed patient care. Bittner and Gravlin (2009) determined that frequently missed care was usually basic nursing care that included maintaining a turning schedule for immobile patients, ambulation, feeding, oral care, and toileting.

Bittner and Gravlin's work complemented that of Potter, Deshields, and Kuhrik, (2010) who found that effective nurse delegation was related to the positive working relationship among the RN and AP, excellent communication, personal initiative and a desire to collaborate within the workplace. The professional nurse must know the scope of nurse practice or job duties written in position descriptions for all team members. Knowledge of each of the team member's roles builds confidence and trust. The effective RN remembers that all team members, which includes AP, are important to effective patient care delivery and positive outcomes.

Models to Guide Nurse Delegation Decision-Making

Nurses benefit from learning the concepts of nurse delegation while in nursing school. Seminal research done in the 1990s supported that delegation was a skill that could be taught and learned by both student nurses and practicing Registered nurses (Conger, 1993, 1994; Parsons, 1997, 1998, 1999). Basic systems models explain inputs of delegation content, the throughput of application of knowledge learned and the output of increased delegation skill in clinical practice environments. Figure 1 shows the Delegation Systems Schematic.

American Nurses Association Delegation Model

The American Nurses Association (ANA), the largest US professional nursing organization, provides information on many issues including nurse delegation. The RN is ultimately responsible for all aspects of nurse delegation. The ANA clearly supports that accountability for delegation rests with the RN (McInnis & Parsons, 2009). The five rights of delegation are integrated within the ANA delegation model and the reader is referred to Figure 2 to view the ANA delegation model.

The ANA clearly differentiates the differences in the role of the RN and the licensed practice nurse. The *Principles for Delegation Paper* addresses the RN professional nurse practice role. This ANA document gives definitions for common terms for nurse delegation, key tenets that guide the professional nurse role, practice approaches, staff development/in-servicing for delegation education, and the ANA delegation model. Additionally, nursing practice is based upon a social contract with society and recognizes the nurse's rights and responsibilities while simultaneously being accountable to the public for their nurse practice (ANA, 1995). Information contained within the paper provides the RN with practice strategies when delegating all aspects of patient care to AP.

There are four (4) major concepts within the ANA Model and include the patient, the practice setting, the delegate (person being delegate to), and the task (Figure 2, ANA, 1995). The RN is accountable for all aspects of patient care and must know the exact skills of team members and the patient's acuity level before assigning tasks/procedures to address the care needs of patients. When assigning tasks to AP, it is best practice to choose those activities that have predictable outcomes. Examples include passing ice water, delivering food trays, assisting with eating, and answering patient call lights. Another example may be assisting a stable five day post-operative hip fracture repair patient with walking.

In sum, the ANA gives clear guidelines for safe delegation including that it is imperative that the RN knows components of all team members position/job description. This knowledge will help the RN safely delegate tasks to other healthcare personnel. The RN holds the delegate responsible for completing a

task within their performance capabilities and their specific job description. The RN will mainly delegate the “intervention” step of the nursing process to AP, however, is responsible for activity supervision.

Conger's Delegation Decision-Making Model

The Nurse Delegation Decision-Making Model was first introduced in the literature in 1993 by Conger. The reader is referred to Figure 3 to view the three-step model. The model has three (3) major steps. First, the nurse must determine what tasks need to be completed. Physicians and Registered nurses can identify needed tasks and procedures that need to be done for the patient. Agency policies provide guidelines regarding how often certain tasks need to be done; (i.e. change peripheral intravenous (IV) tubing every three (3) days, change the central venous catheter (CVP) tubing every 24 hours). Following agency policy is a form of indirect delegation that provides practice guidelines for all Registered nurses.

The second step includes identifying patient problems whether physical, psychological or spiritual in nature. In this step the RN must learn if the patient can manage their health care situation independently. For example, an 88 year old insulin dependent diabetic patient being discharged home may be knowledgeable of how to draw up their insulin and their disease process; however, if their visual acuity is impaired due to decreased visual acuity they may not be able to draw up their insulin in the syringe. If the patient is capable (knowledgeable) the nurse must assess their motivation to follow through with care directives from their healthcare provider.

The third and last step in the delegation model is to evaluate the most appropriate person for care delivery. To make this decision the RN will take into consideration the AP's education level, agency position/job descriptions, agency policies/protocols, state licensing legislation (nurse practice act), and demonstrated competency (ability). This last component is very important as each individual nurse and AP has different capabilities. For example, many states in the United States allow for licensed practical nurses to start peripheral intravenous (IV) lines and administer certain IV medications. It may be that the most proficient person to start an IV on

your team for a given shift is the licensed practical nurse. The RN must always keep in mind that an AP with 25 years of experience may be more proficient than the new RN graduate for certain task completion within their individual scope of practice.

Delegation Role and the Advanced Practice Nurse

The Registered Professional Nurse (RPN) and the Registered Nurse Midwife (RNM) have similar roles in South Africa as Advance Practice Nurses (APN) and Midwives in the United States. The RPN and RNM practice is regulated by the South African Nursing Council's Nursing Act No. 33 of 2005. The scope of practice defined in the Nursing Act is broad and simply states that the person is qualified, competent, responsible and accountable for their practice. A legal registration is required and an appointed Registrar determines the individual's competency for the title. Although a broad scope of practice guideline may be intended to provide greater autonomy, other legislation inhibits crucial areas of advanced nursing practice. An example is seen in the Medicines and Related Substances Control Act which limits the nurse's role in prescribing medication in the US (Bierman & Muller, 1994). While the nurse may not prescribe medication for a patient, a stock of medication may be kept and dispensed by the nurse as a delegated role under the direction of a medical practitioner.

Another area of nurse practice that is limited is the diagnosis and prescription of medical care by the RPN. This is particularly problematic in a country where the critical shortage of medical providers forces an unrealistic responsibility on a medical practitioner who may only be available to the community health clinic one hour per week (Bierman & Muller, 1994). Necessity often forces the nurse to prescribe medical care and medication, with or without authorization. Informal agreements between medical providers and RPNs may delegate many role functions to the RPN that are not recognized legally.

As the crisis for healthcare in South Africa continues, it is imperative that the nurse's role is recognized as an important part of providing primary care at the community level. The use of Registered nurses and RNMs to provide primary and obstetric care is already an essential element that should be

recognized and given legal authority. As the frontline provider, often available twenty-four hours a day, the RN is ideally suited to co-ordinate the multi-disciplinary health care team (Bierman & Muller, 1994). Recognizing the RPN and RNM's knowledge and experience gives credibility to their ability to delegate tasks and coordinate care of groups of clients in a situation where medical providers are simply not available. Nurses are professionals who have responsibility for tasks that are delegated to them and for tasks they delegate to others. This professionalism provides a safe and effective mechanism for South Africa.

Nurse Delegation within Nursing Specialty Fields

The role of the RN relative to delegation is influenced by the cohort being cared for in the practice setting. Registered Nurse need to refer to the standards of practice for their respective fields relative to delegation to other health care workers. An example of the pediatric specialty will be explored as it is particularly pertinent to Registered nurses practicing in South Africa in caring for a large numbers of children that are HIV positive.

Pediatric Specialty

The South African Nursing Act of 2005 allows for a

broad scope of practice for the staff nurse and the auxiliary nurse. The only requirement is that the person is educated to practice nursing to the level prescribed (South African Nursing Act, 2005). Although this allows much flexibility for the nurse's practice, it also has expanded the scope of nursing practice in other African countries (Wilson, 2011). For this reason, it is imperative that nurses in this type of environment have guidance on how to delegate responsibilities to those with less education and training. Pediatric nursing presents unique challenges in delegation which are discussed.

When working with children, AP play an invaluable supportive role with proper training and supervision (Shelly & Coyne, 2009). AP should be trained to adhere to strict protocols and procedures which would allow them to care for a medically stable child, how to recognize signs and symptoms of worsening conditions, and how to call for help (Nursing and Midwifery Council [NMC], 2007). According to the Royal College of Nursing (2008), there are procedures that could be delegated to non-health qualified staff after a pediatric nurse assessment has been completed. It must be noted however, that the nurse is still accountable for the appropriateness of the delegation (NMC, 2007).

Examples of safely taught procedures that can be delegated to a health care aid would

include:

- Administering medicine in premeasured dose via nasogastric tube, gastrostomy tube, or orally, bolus or continuous feeds through a nasogastric tube or using a pump via a gastrostomy tube
- Tracheostomy care, including suction using a suction catheter
- Injections (intramuscular or subcutaneous).
- Intermittent catheterization and catheter care

- Care of Mitrofanoff
- Stoma care
- Rectal medication with a pre-packaged dose, that is, rectal diazepam
- Emergency treatments covered in basic first-aid training, including airway management
- Assistance with inhalers, cartridges and nebulizers
- Assistance with prescribed oxygen administration
- Ventilation care for a child with a predictable medical condition and stable ventilation requirements.

Procedures that should not be delegated to a health care aide:

- Assessment of care needs, planning a program of care or evaluating outcomes of a program of care
- Re-insertion of nasogastric tube, Percutaneous Endoscopic Gastrostomy (PEG) tube, or other gastrostomy tubes
- Injections involving assembling syringe or intravenous, administration
- Programming of syringe drivers
- Deep suctioning
- Siting of indwelling catheters
- Medicine not prescribed or included in the care plan
- Ventilation care for an unstable and unpredictable child.

Nurse delegation of medication administration by AP is an area of concern; however its prevalence is growing. In the United States the American Disability Act aims to provide persons with a disability the necessary tools to live as independently as possible. In response to this policy and the nursing shortage in the United States, many state policies have been changed to allow medication administration by non-licensed personnel. The nurse is responsible for supervising the medication administration by the delegate (Herschel, Crowley, & Cohen, 2005). Registered nurses are responsible for training delegates in the proper medication administration procedures. With proper in-service education, AP can offer flexibility and efficiency in the delivery of healthcare to pediatric patients (Shelley & Cohen, 2009). In any area where Registered nurses are in short supply, appropriate delegation is a viable solution for non-skilled and supervised skilled tasks. However, it is vital to carefully consider the current pediatric practice environment and the skill level of the AP. In Botswana where nurses are faced with heavy workloads, understanding how to safely delegate responsibilities to an AP can offer efficiency in the delivery of healthcare.

Summary

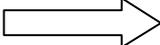
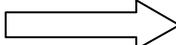
It is imperative that nurse educators and nurse administrators find ways to educate nursing students and practicing professional nurses about nurse

delegation decision-making strategies. Delegation Decision-Making models provide the framework for education nurses about delegation strategies. Standards of nurse practice written by nursing specialty organizations and health care agency position (job) descriptions provide guidance for practicing Registered nurses making sound delegation decisions to deliver safe patient care.

Table 1. Reasons Nurse's Cite for Difficult with Delegation

- Resentment from co-workers
- Unrealistic clinical assignments in nursing school; i.e. only being assigned one (1) patient
- Conce Registered nurses with fairness
- Inadequate staff-development and continuing education sessions for practicing Registered nurses
- High numbers of AP and low numbers of licensed nurses
- "There is no one to delegate to.
- "Fear of being "disliked" by co-workers
- Lack of delegation knowledge/parameters in practice acts
- Fear of being sued if a delegation error is made
- "I would rather do the work myself.
- "Organization (hospital, long term care facility) does not provide management sessions

Figure 1. Delegation Systems Schematic

Input 	Throughput 	Output 
Staff Development /In-Service Sessions on Nurse Delegation Decision-Making in Practice	Application of Knowledge Gained in the Clinical Practice Setting	Enhanced Nurse Delegation Decision-Making Knowledge/Skills in Day-to-Day Nurse Practice

Developed by author Lynn Parsons.

Figure 2. American Nurse’s Association Delegation Model



Retrieved from

<http://www.safestaffingsaveslives.org/WhatIsSafeStaffing/SafeStaffingPrinciples/PrinciplesforDelegation.html.aspx>

Figure 3. Delegation Decision-Making Model

Patient Situation

Identify Required Tasks

- ordered by the MD
- ordered by the RN
- mandated by agency policy

Identify Patient Problems

- biological
- psychosocial and spiritual

Evaluate patient response to problems or
“sense of coherence”

- * manageability
- * knowledge (comprehension)
- * motivation (meaningfulness)

Evaluate Most Appropriate Staff Member

- education
- job description
- hospital (agency) policy
- licensing legislation
- demonstrated competency

Make a Delegation Decision

Conger, M.M. (1993). Delegation decision-making. *Journal of Nursing Staff Development*, 9 (3), 131-135. Reprinted with permission from Lippincott, Williams, and Wilkins.

References

American Nurses Association (ANA) (2005). Safe staffing saves lives: ANA principles for delegation. Retrieved from <http://www.safestaffingsaveslives.org/WhatIsSafeStaffing/SafeStaffingPrinciples/>

Anthony, M., & Vidal, K. (2010). Mindful communication: A novel approach to improving delegation and increasing patient safety. *The Online Journal of Issues in Nursing*, 15(2). Retrieved from http://www.medscape.com/viewarticle/730443_

Bierman, J & Muller, M. (1994). Legal limitations in the practice of the primary health care nurse. *Curationis*, 17(2), 29-34.

Bittner, N. P. & Gravlin, G. (March 2009). Critical thinking, delegation, and missed care in nursing practice. *The Journal of Nursing Administration*, 39(3), 142-146.

Buchwach, D. (June,2011). From the staff development bookshelf: Helping new graduate nurses learn to delegate. *Staff Development Weekly*.

Bystedt, M. (2011). Delegation within municipal health care. *Journal of Nursing Management*, 19(4) 534-541.

Conger, M. M. (1993). Delegation decision-making. *Journal of Nursing Staff Development*, 9(3), 131-135.

Conger, M. M. (1994). The nursing assessment grid: Tool for delegation decision. *Journal of Continuing Education in Nursing*, 25(1), 21-27.

Cipriano, P. (2010). Overview and summary: Delegation dilemmas: standards and skills for practice. *The Online Journal of Issues in Nursing*, 15(2). doi:10.3912/OJIN.Vol15No02ManOS

- Eaton, J. (2009). Delegation: a powerful tool in the right hands. *Learning Disability Practice*, 12(8), 30-31.
- Heschel, R. T., Crowley, A. A., & Cohen, S. S. (2005). State policies regarding nursing delegation and medication administration in child care settings: A case study. *Policy, Politics, & Nursing Practice* 6(2), 86-98. DOI: 10.1177/1527154405275884
- Hudspeth, R. (2007). Understanding delegation is a critical competency for nurses in the new millennium. *Nursing Administration Quarterly*, 31(2), 183-184.
- Klienman, C. S., & Saccomano, S. J. (2006). Registered Nurse and unlicensed assistive personnel: An uneasy alliance. *Journal of Continuing Education in Nursing*, 37(4), 162-170.
- McInnis, L. A., & Parsons, L. C. (2009). Thoughtful nursing practice: Reflections on nurse delegation decision making. *Nursing Clinics of North America*, 44, 461-470.
- National Council of State Boards of Nursing (NCSBN) (2006). NCSBN and ANA issue joint statement on nursing delegation. Retrieved from <http://www.ncsbn.org/1056.htm>
- Nursing and Midwifery Council (2007). Accountability. NMC, London. Retrieved from <http://www.nmc-uk.org/aFrameDisplay.aspx?DocumentID=4018>
- Paediatric Nursing. (May, 2008). Delegation of procedures. *Paediatric Nursing*, 20(4), 25.
- Parsons, L. C. (1997). Nurse Delegation Decision Making: Evaluation of a teaching strategy. *Journal of Nursing Administration*, 27(2), 47-52.
- Parsons, L. C. (1998). Delegation skills and nurse job satisfaction. *Nursing Economics*, 16(1), 18-26.
- Parsons, L. C. (1999). Building RN confidence for delegation decision-making skills in practice. *Journal for Nurses in Staff Development*, 15(6), 263-269.
- Potter, P., Deshields, T., & Kuhrik, M. (2010). Delegation practices between Registered Nurse and nursing assistive personnel. *Journal of Nursing Management*, 18, 157-165.
- Royal College of Nursing. (2006). Managing children with health care needs: Delegation of clinical procedures, training and accountability issues. Retrieved from www.rcn.org.uk/data/assets/pdf_file/0020/145640/Clinical_proceduresfinal08.pdf
- Shelley, H. & Coyne, R. (2009). Employing healthcare assistants in paediatric oncology units. *Paediatric Nursing* 21(9), 32-34.
- South African Nursing Council. (2005). South African Nursing Council's Nursing Act No. 33 of 2005. Retrieved from <http://www.sanc.co.za/publications.htm>
- Standing, T. & Anthony, M. (2008). Delegation: what it means to acute care nurse. *Applied Nursing Research*, 21, 8-14.
- Wilson, D. (2011). The Botswana "I am Proud to be a Nurse" campaign. *The Tennessee Nurse*. December 2010, January, February 2011, 8.
- Satterthwaite, P., Larmer, P., Norton, R., Robinson, E. (1999). Risk factors for injuries and other health problems sustained in a marathon. *British Journal of Sports Medicine*, 33: 22-26.
- Schwellnus, M.P., Stubbs, G. (2006). Does running shoe prescription alter the risk of developing a running injury? *International Sport Medicine Journal*, Vol.7, No 2, p138-153.
- Smith, A., Scott, S., Wiese, D. (1990). The psychological effects of sports injuries: Coping. *Sports Medicine*, 9(6):352-369.
- Souza, R.B., Powers, C.M. (2009). Differences in hip kinematics, muscle strength, and muscle activation between subjects with and without patellofemoral pain. *Journal of Orthopaedics and Sports Physical Therapy*, 39(1): 12-19.
- Taunton, J.E., Ryan, M.B., Clement, D.B., McKenzie, D.C., Lloyd-Smith, D.R., Zumbo, B.D. (2002). A retrospective case-control analysis of 2002 running injuries. *British Journal of Sports Medicine*, 36.2: p95(7).
- Taunton, J.E., Ryan, M.B., Clement, D.B. (2003). A prospective study of running injuries: the Vancouver Sun Run "In Training" clinics. *British Journal of Sports Medicine*, 37: 239-244.
- Tessutti, V., Trombini-Souza F., Ribeiro, A.P., Nunes, A.L., Neves Saco, I.D. (2008) In shoe plantar pressure distribution during running on natural grass and asphalt in recreational runners. *Journal of Science and Medicine in Sport*, 13: 151-155
- Thacker, S.B., Gilchrist, J., Stroup, D.F., Kimsey Jr, C.D. (2004). The Impact of Stretching on Sports Injury Risk: A Systematic Review of the Literature. *Medicine and Science in Sports and Exercise*, Vol. 36, No. 3, pp. 371-378.
- Van Gent, R.N., Siem, D., van Middelkoop, M., van OS, A.G., Bierma-Zeinstra, S.M.A., Koes, B.W. (2007). Incidence and determinants of lower extremity running injuries in long distance runners: a systematic review. *British Journal of Sports Medicine*, 41: 469-480.
- Van Mechelen W. (1995) Can running injuries be effectively prevented? *Sports Medicine*, 19(3): 161-165
- Walter, S.D., Hart, L.E., McIntosh, J.M. (1989). The Ontario cohort study of running-related injuries. *Arch International Medicine*, 149: 2561-2564.
- Warburton, D.E.R., Nicol, C.W., Breding, S.S.D. (2006) Health

- benefits of physical activity : the evidence. CMAJ, 174(6) ; 801-9
- Wen, D.Y., Puffer, J.C., Schmalzried, T.P. (1998). Injuries in runners: A prospective study of alignment. Clinical Journal of Sport Medicine, 8: 187-194.
- Wexler, R. (1995). Lower extremity injuries in runners: helping athletic patients return to form. Postgraduate Medicine, 98.n4: p185(6).
- Willems, T., Clerq, D., Delbaere, K., et al. (2006). A prospective study of gait related for exercise related lower leg pain. Gait Posture, 23: 91-98.
- Yeung, E.W., Yeung, S.S. (2001). A systematic review of interventions to prevent lower limb soft tissue running injuries. British Journal of Sports Medicine, 35.6: p383(7).