Finding Our Way:

Solutions to Current & Future Trends in Nursing in Qatar

Edited by

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&

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These are the combined works of the students enrolled in Nursing 411: Nursing Scholarship at the University of Calgary-Qatar in the Fall Term, 2012. The goal of the class was to identify current and future trends in nursing in Qatar, and using an inquiry and evidence-based approach, develop a plan to address the issues.

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Jan Marie & Brad
Increase in employee’s absences due to sickness by Hodan Hassan Abdalla

Introduction

The issue of absence due to sickness has attracted a good deal of attention recently in the whole world. The right to absence when sick is a central part of the contract between employer and employee. However absenteeism of employee results in issues of staffing, scheduling, lost productivity diminished moral and financial cost. Absence due to sickness has been shown to be a strong risk marker for the future of health care outcomes and could interfere with efficiency and quality of care. There are many causes for employee absenteeism: serious illness, socioeconomic issues, stress from managerial behaviour and excessive workload. Serious illness could be of two kinds; acute or chronic while socioeconomic issues could span a wider spectrum of issues relating to working student, stress from family issues such as spouse or children suffering from illness, and other factors such as low salary income which could translate in to no hazard allowance and absence of rewards. Excessive workload could affect the absenteeism of employees, that leads to the lack of staff, increased working hours which could lead to a lot overtime, low workplace morale and increased number of patients, while decrease in number of staff. Moreover, there is stress from incompetent, unfair managers who has lack in training and supervision and are not supporting the staff in their problems. In addition, bullying by a manager in the workspace could be by not respecting legal rules and regulations or by writing reports against staff members without a valid reason or justification. The following discussion will examine the affect of leadership behaviour in employee absences due to sickness.

Nyberg, Westerlund, Hanson, and Theorell, (2008) wrote “Managerial leadership is associated with self-reported sickness absence and sickness presenteeism among Swedish men and women” to address how the managers’ behaviour could increase or decrease self-reported absence due to sickness. They found that lack of supervisor support in the work place such as difficulties in
staff replacement, time pressure, insufficient resources and having a poor personal financial situation were associated with absence due to sickness. They used the Swedish Work Environment Survey (SWES) for individuals to complete and a supplementary self completion questionnaire about the physical and psychological work environment, work related morbidity, education, training and attitudes to work. The sample size was 5985 and 60% responded. Instruments and variables used were leadership scales which are integrity, inspirational leadership, team integration, autocratic leadership and self centred leadership. The control variables measured job demands, job control and social support and the outcome variable was sickness absence lasting less or more than one week during the past twelve months. The results were staff with inspirational managers had fewer sick leaves than those who had autocratic leaders. So, taking sick leave could be kind of a coping strategy for not getting sick. “Sickness absence is not only as a measure of health status, but also a behavioural response related to perception of managerial leadership” (Nyberg et al, 2008, p.810).

Westerlund, et al (2009) in their article “Managerial leadership is associated with employee stress, health, and sickness absences independently of the demand-control-support model.” reported that the negative psychosocial work environment associated with high job demands, low control over work and non participation in the work place could lead to sickness absence. In addition, leadership behaviour could be one of the sources of stress in the work place. The study included 12,622 employees from Finland, Germany and Sweden. They used the Occupational Stress Questionnaire (OSQ) to measure psychosocial work environment. The result was psychosocial work environment factors and social support was strongly correlated with managerial leadership. That means lack of leadership behaviour could increase the employee sick leave. “Negative (passive avoidant) aspects of managerial leadership were more strongly associated with employee burnout, than positive aspects.” (Westerlund et al, 2009, p.72).

According to Schreuder, Roelen, Zweeden, Jongsm, Klink and Groothoff (2011) authors of the article “Leadership styles of nurse managers and registered sickness absence among their
nursing staff " there is a relationship between managerial leadership and sickness absence in health care. They distributed a questionnaire among 699 employees working in six wards who were headed by the same managers for at least the last 3 years. The nurse managers completed the Leadership Effectiveness and Adaptability Description (LEAD) questionnaire. From 699 questionnaires, 570 were returned. The result showed the supportive relationship between leader and registered nurse at work could develop healthy workplace and decrease number of sick absence. “Leaders are frequently unaware of how their behaviour influences followers. Managerial behaviour affects nurses' job satisfaction, performance and productivity”. (Schreuder et al, 2011, p.64).

Further on the issue, Thomas, (2004) reported in “Bullying among support staff in a higher education institution” found that a relationship between bullying at work, which is a major problem for employees and employers and increasing job stress which may lead to chronic long term health implication physically and mentally. The bullying at work UNISON Survey found that 75.6 per cent of employees who reported being bullied experienced negative health effects. The study included 4,500 employees. They used two questionnaires to assess the incidence of bullying in the last 2 years and types of bullying have been experienced. They also, interviewed those who experienced bullying.

Forty-two per cent responded. Nineteen respondents reported experiencing bullying. They found that headache, fatigue, stomach and bowel problems are the most common physical complain. The Non physical factors were decrease in workplace morale, increased stress at home, low self esteem, depression and seeking another job. All these factors will increase sickness absence, low morale and poor performance. “Bullying or the more generic ‘harassment at work’ is claimed to be a more crippling and devastating problem for employees than all other work-related stress put together.” (Thomas, 2004, p.289).

Discussion
It is important to highlight that all the articles were utilized in order to draw out the most important issues and give a greater understanding of the issues. The reason for drawing from the various articles is because they have similar findings. The all talk about the same issues which are the usage of democratic style of management in order to reduce absenteeism due to sick leave. Therefore, I found each of the articles equally useful in my analysis.

The style of leadership used and the leader subordinate relationship that is cultivated in an organization, gravely impacts the degree of attendance or absenteeism of an employee. For instance, exercising a democratic leadership style leads to job satisfaction and a healthy work environment; on the other hand, a heavy handed autocratic leadership style has a negative health effect on employees and results in wide absenteeism which makes taking a sick leave some kind of coping or withdrawal strategy. It was also well founded that managers who bully and exercise a belligerent tone with their subordinates are a catalyst for increased employee absenteeism. Hence, supporting and engaging the employees with an amiable attitude in the workspace, defuses the barriers for misunderstanding between management and employees and reduce the need for employees to resort to soliciting sick leave in order to be absent from work. One of the factors that can help in this issue is cultivating this kind of leadership in an organization by investing heavily in training programs to develop the managers. Educational activities will assist leaders to practicing core company values and competencies.

Conclusion

In summation, the styles of leadership were found to be closely linked and associated with employee absence, which in turn becomes sick leave in order to justify that absence. The typical symptom includes headaches, fatigue, stress and low work morale. Another fact that was unearthed is that managerial behaviour affects employees’ job satisfaction and productivity. If the relationship is managed properly and the style of management leaves channels of communication open, then it may help in reducing understaffing and improving the efficiency and quality of care provided by
nurses. Moreover, empathy from the leadership allows those subordinate to them to create bonds of trust and understanding which allows them access to their perspective and feelings.

**Recommendation**

In the Qatar health care environment, sickness that causes absence is a major problem because it leads to shortage in nursing staff, which in turn interferes with the efficiency and quality of care. So, “training nurse managers in relational leadership styles may reduce understaffing and improve nursing efficiency and quality”. (Schreuder et al, 2011, p.59). Coupled with the training aforementioned, it would also be recommended that in the future managers should implement regular meetings with subordinates on an individual or group basis in order to discuss issues before they become a problem. This would open the communication channel between the two levels and forge a trusting relationship that they can both rely on.

**References**


Solutions to increase the adequacy of hemodialysis by Khulood Abdulsalam

Introduction

Hemodialysis is one of the treatments that are providing for end stage renal disease. Every effort should be made to ensure that patients are receiving adequate hemodialysis at each treatment. Improvements in dialysis efficiency will reduce morbidity and mortality for hemodialysis patients. A study was conducted among hemodialysis patients in Qatar and data was collected to compute the Kt/v (a number used to quantify hemodialysis & peritoneal dialysis treatment adequacy) or urea ratio (URR) in order to evaluate the adequacy of treatment. Hemad Medical Corporation set a benchmark 80% which mean 80% of hemodialysis patients in Qatar should have a result of URR greater than 65% or Kt/V greater than 1.2. Results showed that there are significant risk factors which could lead to inadequacy of the delivered dose of hemodialysis. This will explore number of issues that arise in Qatar dialysis center and possible solutions to increase the adequacy of the delivered dose of hemodialysis. The literature review focuses on hospital protocol issues which includes inappropriate pre dialysis care pathway for creation of AVF and AVG as vascular accesses in the hemodialysis center. Three articles were reviewed. Issues and solutions that provided in the articles have been linked and discussed with issues raised in Qatar. Finally recommendations for possible solution that could be applicable in Qatar are mentioned.

Issues

Inadequate hemodialysis is problem arise in Qatar dialysis center. The issues arise are categorize to five themes based on the problem related to. First theme is related to hemodialysis access problem and it listed in infection of arteriovenous fistula (AVF) and arteriovenous graft access (AVG) that because of recannulations of the same site. Also catheter Poor flow lead to frequent handling of catheter by nurses to adjust the position and to check the flow witch lead to increase
expose of catheter exit site and increase infection rate which lead to re change the catheter and damage the access. Low blood bump less than 300ml/min effect the efficiency of hemodialysis secondary to complication of access like hematoma, aneurism, stenosis, high venous pressure, and spasm results from cannulation problem of AVF & AVG, as well not well functional catheter and Weak AVF & AVG and patient who has a vascular or cardiac disease lead to blood bump less than 300ml/min. Patient refusal leads to delay creation of AVF & AVG access, as they are afraid of pain resulting from cannulation or patients are planning for kidney transplant. Some patients are not fit to create of AVF & AVG, therefore there is a delay in the intervention and Poor follow up to fix the access problem that is because of limited operation days which is not enough compared to increased the number of patient on the waiting list that lead to increased the work load on the vascular team, as well delay appointment, and unavailable bed for admission lead patient to refuses to follow up.

Second theme is inappropriate pre dialysis care pathway for creation of AVF and AVG as vascular accesses in the hemodialysis center. Based on observation, most patients in Qatar who start hemodialysis treatment are using a central venous catheter, is due to poor coordination between the vascular and nephrologist doctors which leads to a delay in the creation of AVF and AVG access in the early stages while patient still is followed in low clearance clinic. Also limited operation days is not enough compared to increased the number of patient on the waiting list that lead to increased the work load on the vascular team. In addition, failure to provide appropriate health education in the early stages of the disease and the importance of patient selection of the proper treatment access may result in increased catheter use.

Third theme is related to patients themselves as they are non compliance to hemodialysis regimen. Based on the observation those patients are not completing the time prescribed by doctors which will be ranging from 3:30 to 4 hours. By asking the patient what might be the causes, their answer that they feel tired and boring because of the long time treatment also they complain that bed or hemodialysis chair is not comfortable. As well some patients answer that completing time will not make them better or cure them as it is a long life disease. Some other patients have
other issues like transport problem, appointment, or they have to take care of their children at home. Work or job requirement will lead some patient to skip their hemodialysis session. Patients could have other chronic problem like back pain which will let them unable to set till the end of session. In addition, hemodialysis patients are not following the renal diet and fluid restriction and as there are no varied diets which make the food tasteless as well some patients have to follow other type of diet like diabetic and cardiac diet. Also level of patient education could affect negatively as some patients are illiterate or their education level is in the lower average. Language barrier between the patient and health care team could lead to ineffective health education regarding the sequences of non compliance to hemodialysis regiment.

Fourth theme is related to staff nurses. Based on observation some staff nurse are not following the protocol of cannulation of AVG and AVF as they are pricking same site which lead to access problems that could be because the staff skills in cannulation are varied. Also staffs are not keeping the pump more than 300 ml/min. As well they are not reporting the problem of access to vascular doctors.

Fifth theme is related to dialyzer. There are no enough studies for different type of dialyzers among Qatar patient regarding effective and clearance of dialyzers. Also some patients have an allergy to type of dialyzer that has been used in Qatar dialysis center and it showed high efficiency result.

**Literature Review**

Lopez-Vargas et al, (2011), in the article “Barriers to timely arteriovenous fistula creation”. Stated the importance of identifying vascular access that be used at the start of hemodialysis therapy and to identify barriers to place of arteriovenous fistula. It is a qualitative and quantitative analysis (multicenter cohort study). The study was done in nine nephrology centers in Australia and New Zealand, and 319 adult hemodialysis patients participated in this study. According to the article, 319 patients started hemodialysis therapy during the 6-month period, 39% with an arteriovenous fistula and 59% with a catheter. Data collection involved face-to-face group meetings, center visits,
informal interviews, and patient data collection. Barriers were grouped into 3 areas: patient factors, physician factors, and organizational factors. Patients and families factors included lack of pre dialysis education, denial of disease and need for dialysis, patient not attending at scheduled surgical appointments, and culturally and linguistically diverse population. Solutions provided to overcoming patient factors are encouraging patients to attend their appointments and education sessions. Physician (general practitioners, nephrologists, and surgeons) factors include late referral to nephrologists, prolonged waiting time to see nephrologists, surgical assessment, and arteriovenous fistula creation. A solution to overcoming these factors is by improving the awareness of the importance of starting hemodialysis with permanent vascular access. Organizational factors include lack of policies (eg, estimated glomerular filtration rate eGFR thresholds) for when to refer for education, surgical review, access creation and timing and availability of vascular mapping. As well, there is a lack of patient database. Solutions to overcoming these factors are to design clinic for urgent cases, formalized patient education sessions, pre dialysis care pathway, centralized surgical waiting list management, and routine database for patient tracking. Implementations of combined results can lead to timely vascular access placement and improved patient outcomes (Lopez-Vargas et al, 2011).

Sehgal, Leon, Siminoff, Bunosky & Cebul (2002), “Improving the quality of hemodialysis treatment”, identified three barriers for efficient of hemodyalysis which they are under prescription of dialysis by physicians, use of intravenous catheters to provide treatment, and shortening of treatment time by patients. Also they determine the effect of education intervention on adequacy of hemodialysis. The qualitative randomized, controlled study showed that educating physicians and patients about these barriers resulted in a twofold increase in dialysis dose compared to usual care. The study involved 169 patients from 29 hemodialysis facilities. The 169 patients were divided in to two groups. The control group continued to receive usual care from their nephrologists and intervention group which had been educated about the importance of adequate dialysis dose, and then a study coordinator provided feedback and recommendations to intervention patients and to
nephrologists. If dialysis prescriptions are too low, a study coordinator helped physicians improve them by giving recommendations like a higher-efficiency dialyzer or higher flows of blood or dialysate. This will increase treatment duration. If patients received treatment through a catheter, the coordinator interviewed patients and nephrologists to ascertain the reason for catheter use (e.g., lack of vascular sites, frequent clotting, and patient unwillingness to undergo surgery to receive a fistula or graft, no referral to vascular surgeon). The coordinator educated patients about the negative impact of catheter use on dialysis dose. She encouraged the nephrologists to refer the patient to a vascular surgeon. Otherwise, she recommended an increased dialysis prescription. If patients shortened treatment time by coming late or leaving early, the coordinator educated them about the importance of staying for the full amount of time. The result of this intervention was that patients had 2-fold increases in Kt/V compared with control patients and were more likely to achieve their facility Kt/V goal (62% vs. 42%). Intervention patients also had nearly 3-fold increases in dialysis prescription and were 4 times more likely to change from use of catheters to use of fistulas or grafts (28% vs. 7%) (Sehgal et al, 2002).

Polkinghorne, Seneviratne, & Kerr (2009) reported in their article “Effect of a vascular access nurse coordinator to reduce central venous catheter use in incident hemodialysis patients”. They attempted to determine the vascular access used at first hemodialysis treatment in patients with pre–end-stage renal disease in the 12 months before and after the implementation of a new professional role of vascular access coordinator. The qualitative study was done in a Tertiary referral hospital with 184 patients starting hemodialysis therapy in 2005 and 2006. Situational analysis identified many important factors as significant barriers to ensuring timely arteriovenous fistula creation. There was a lack of coordination of surgical lists and multiple different surgical waiting lists for each surgeon, frequent cancellation of elective operating lists occurred, communication between the pre–end stage renal disease clinic and the nephrology registrar co-originating the operating list was poor, and there was a lack of importance of starting dialysis therapy with an arteriovenous fistula. Based on the situational analysis, a new professional vascular access nurse role was created.
The role of vascular nurse is to attend pre-end stage renal disease clinic, documents and keep database for the all pre-end stage renal disease patients, arranges surgical referral, appointments, and educate patients of importance to attend appointment, provide follow up and assessment of new arteriovenous fistula, arrange for three monthly presentations to nephrologists of vascular access data, and categorization and determination of surgical priority. The result showed a significant positive effect of the implementation of a new role with a significant decrease in central venous catheter use. The result showed the number of patients starting hemodialysis therapy with an arteriovenous fistula increased from 56% to 75% post implementation of new role (Polkinghorne et al, 2009).

Discussion

Many factors could lead to inadequacy of delivered dose of hemodialysis. Inappropriate pre-dialysis care pathway for creation of AVF and AVG as vascular accesses in the hemodialysis center is considered one of the significant issues that arise. Based on observation, most patients in Qatar who start hemodialysis treatment are using a central venous catheter, which negatively affects the adequacy of hemodialysis. The main reasons for the increasing number of patients who start therapy with catheter are poor coordination between the vascular and nephrologist doctors which leads to delay in the creation of AVF and AVG access in the early stages while patient still is followed in low clearance clinic. Also limited operation days are not enough compared to the increase number of patients on waiting list that lead to increase the work load on the vascular team. In addition, failure to provide appropriate health education in the early stages of the disease and the importance of patient selection of the proper treatment access may result in increased catheter use. The evidence provided in the literature reviewed would support implementing of a new professional vascular access nurse coordinator role. According to Polkinghorne, Seneviratne, & Kerr (2009), the job of nurse coordinator is to attend pre-end stage renal disease clinic, documents dialysis intent, modality, and chronic kidney disease stage, keeps database of all pre-end stage renal disease patients, arranges surgical referral, appointments, reminds patients of importance to attend appointment,
categorization and determining of surgical priority list, follows up and assessing of new arteriovenous fistula, and arranging three monthly presentations to nephrologists of vascular access data. The result found a significant positive effect of the implementing the new role in decrease the number of patient that using central venous catheter as hemodialysis access. (Polkinghorne et al, 2009).

The vascular access nurse coordinator could be an effective solution for this problem as well it can be applied in all hemodialysis treatment center all over the world not only Qatar. The coordinator has many roles and tasks that are helpful in organize arrange and priorities patient surgery list which will reduce the gap between the doctors. Also, according to Lopez-Vargas et al, (2011) formalizing patients education sessions, and pre-dialysis care pathways for when to refer patient for education, surgical review, and access creation would be helpful to overcome the lack of health awareness of the disease, treatment choices and hemodialysis regiments as well the important of creation of AVF, and AVG as a hemodialysis access at the first place. (Lopez-Vargas et al, 2011). Implementation of such a formalized education system in Qatar will have a positive impact in increase the awareness among end stage renal disease patient. Establishing an education clinic that will focus in educating the patient and their family, As will, establish a policy that determine the appropriate time that doctor has to refer patient for education session and access creation which provides time for patient to discuss the appropriate treatment and access choices as well it gives time for access to mature before patient will start the hemodialysis therapy.

Furthermore, according to the study that done by Sehgal, Leon, Siminoff, Bunosky & Cebul (2002), the result showed that educating physicians and patients about the three barriers under prescription of dialysis by physicians, and use of intravenous catheters to provide treatment, and shortening of treatment time by patients resulted in a twofold increase in dialysis dose compared to usual care. As well, intervention group are 4 times more likely to change from use of catheters to use of fistulas or grafts (28% vs. 7 %) as hemodialysis access which have a positive effect in quality of dialysis. (Sehgal et al, 2002). Regular reviewing the outcomes of care, and studying patients data will
help identify the barriers and underscore the problems of inadequate dialysis. This will lead to find practical solutions that is effective in overcoming the problems in short time, and by providing continues education for the physician and nurses that focus in overcoming such specific barrier will help to improve the quality of care.

Conclusion

Based on the literature reviewed and the discussion, it is reasonable to conclude that inadequate delivery dose of hemodialysis can be considered a major problem in Qatar hemodialysis center. The study showed that improvements in dialysis efficiency will reduce morbidity and mortality of hemodialysis patients not only in Qatar but also all over the world. Therefore, every effort should be made to ensure that patients receive adequate hemodialysis at each treatment. There are a lot of factors arise that could lead to inadequate hemodialysis including patient factors, staff factors, hemodialysis access problem factors, and unit protocol and system factors. This paper focused on improving and establishing a pre dialysis care pathway for creation of AVF and AVG as vascular accesses in the hemodialysis center. Four solutions were found in the literature. First, establish a new professional vascular nurse coordinator role in the hemodialyses center to reduce the gap between the doctors. Second, establish an education clinic for early stage kidney disease patient to increase their awareness about disease and access choices. Third, provide a policy that determines the referral time for access creation. Fourth, provide a monthly unit lecture for nurses and doctors to improve the patient care and overcome the problems raised in Qatar hemodialysis center. By applying the four strategies in Qatar hemodialysis center, adequacy of hemodialysis treatment will be improved.

Recommendation

Based on the literature review many solutions could be recommended for Qatar hemodialysis center. These four possible solutions that have been discussed, which are implementing a new professional vascular nurse coordinator role, establishing an education clinic for early stage kidney disease patient, create a policy that determines the referral time for access
creation, and providing a monthly unit lecture for nurses and doctors that focuses in the problems arise in the hemodialysis center, could be discussed with the assistant director of nursing, head nurse of dialysis center, vascular and nephrologists team. These solutions would be supported by the findings of the studies and researches. Vascular nurse coordinator can help in improving communication between the nephrologists and vascular doctors which will have a great impact in improving the quality of care. The head nurse of dialysis center, vascular and nephrologists doctors could share in selecting the nurse. The selection should be based on seniority, experience in hemodialysis unit and management skills. Clinic for education purpose to early stage kidney disease patients can be a great solution to increase the awareness about disease processes, treatment options, and hemodialysis access. The clinic should involve doctor, nurse and if possible patients who are undergoing hemodialysis therapy to share their experience with other patients. This clinic would provide a private visit and a group discussion education. Also, it is important to provide the clinic with the educational aids like data show and workshops. Develop a policy to determine when the nephrologists doctor will refer the patient for surgical review and access creation will provide time for access to be matured before patient will start the hemodialysis therapy. Moreover, the monthly unit lectures for nurses and doctors to discuses solutions to overcome the problems, will have a great effect in increase adequacy of hemodialysis and will improve the quality of patient care in Qatar dialysis center. The efficiency of hemodialysis should be monitored continuously to make sure that the solutions are effective. Furthermore, the results should be followed to assess the need of any modification to the solutions.

References


Reducing High Rate of Surgical Site Infection by Alhan Ahmed

Introduction:

Surgical site infection is a major problem in post operative patients. Most patients are at high risk of getting infection which causes serious complications in delaying wound healing, long hospitalization and sometimes sepsis which may lead to death. There are many reasons behind patients getting infection in the hospital, including poor skin preparation, or pre operatively because the operating room has not been disinfected properly or surgical instruments are not sterile. After surgery, the patient ends up of having open wounds, and by not following aseptic technique in wound handling or by not performing hand washing technique before and after patients care, cross infection occurs. Health caregivers play a major role in preventing infection by following infection control policy. In order to reduce surgical site infection, wound management is one of the ways to prevent infection. Nurses need to be educated about the proper wound dressing.

Issues:

The reasons behind patients getting infection might be related to lack of patient personal hygiene, unclean patient’s environment such as bed side or personal equipments. Lacking staff knowledge related to wound dressing can lead to wound infection like, keeping the wound wet for long time, not following aseptic technique in wound dressing, not using effective wound products which is able to absorb exudates which helps is keeping the wound dry and promote wound healing. Staff knowledge related to wound care may be lacking by not inspecting the wound site every shift, not knowing the stages of wound infection, not wearing proper personal protective equipment such as mask, gloves and gown during the dressing. Poor staff compliance with infection control practice like not washing hands after and before patient’s care is contributing in surgical site infection.

Literature review:

According to Downie, Egdell, Bielby, Searlle, (2010), in their journal article ‘Barrier dressing in surgical site infection strategies”, surgical site infection it is one of the major post operative complications which leads to long hospital stay, pain and discomfort for the patient. The authors addressed different strategies for preventing surgical site infection such as hand washing and aseptic technique. They focused on post operative dressing to prevent wound infection and promote healing. The dressing assessment is important to prevent infection such as that there is no lifting of the edges or leakage of exudates. A comparing study done between two types of dressing materials (Vapour permeable barrier and Mepore dressing), to investigate patient’s satisfaction and high
protection bacterial barrier. One hundred patient’s participated in this survey. None of the patients who had Mepore dressing were able to shower while dressing on place, but the patients who had vapour-permeable dressing, were able to take shower with dressing on place. The patient’s were 90% satisfied with Vapour-permeable dressing type because they were able to take shower without dressing getting wet and protect exudates from coming out and prevent from external infection. The study focused on the ability of dressing to stay in place to prevent infection, and decrease the frequency of wound dressing which decreases cost and increases patients satisfaction (Downie et al, 2010).

According to Brett, (2011), in the journal article “Impact on exudates management, maintenance of a moist wound environment, and prevention of infection”, wounds heal rapidly in a clean environment. Wound management requires correcting other factors such as nutritional status and blood sugar control. This article focuses on the role of wound dressing in managing exudates, keeping wound moist and preventing infection. Exudates production is normal component of wound healing. The quality and quantity of exudates provides a clue regarding the wound healing process or may indicate bacterial infection. The nurses should realize the importance of managing wound exudates by selecting effective dressing type which can manage the exudates and odor at the same time. This will improve wound healing and prevent infection. A comparative study done on dressing material called Hydrocellar foam dressing in managing exudates with other dressing material, 29 pressure ulcers selected. The study found that Haydroyeellar foam dressing is 81% more absorbent than other dressing material, further more study done in investigating the ability of Haydroyeellar foam dressing in preventing wound from infection, 17 cases were selected. The study found that Haydroyeellar dressing is 50% more effective in bacterial prevention comparing to other wound dressing materials. This article showed the importance of selecting effective dressing in order to manage exudates, odor and prevent infection. (Brett, 2011).

Dumville, Walter, Sharp, Page, (2011), in the journal article” Dressing for the prevention of surgical site infection”, reported that surgical wounds heal by primary intention is done by connecting the edges of the wound site by sutures, staples and clips. The wound dressing is applied to protect the wound from infection and to absorb exudates. The authors evaluated the effectiveness of wound dressing or not applying dressing in wounds which can heal by primary intention and preventing from infection. The ideal wound dressing is described as the ability of the dressing to absorb exudates, prevent wound from bacteria and trauma and decreases frequency of change the dressing. The types of wound dressing used are basics like gauze and cotton advance like hydrogels, hydrocolloids and films or anti microbial (Dumville, et al 2011). A randomized controlled
trial compared the application of wound dressing after the surgery or keeping it exposed and using a type of wound dressing have effect in reducing surgical site infection. The study involved adult and children from age 2 years and above, with 319 participants. The study found 13% of exposed wound developed surgical site infection, as opposed to postoperative wounds covered with a dressing. On the other hand, the study found 52% of basic dressing developed mild infection, which explains that wound dressing type can effect wound healing and reduces the rate of wound infection. (Dumville, et al 2011)

Discussion:

Selecting the right dressing materials is important to prevent infection and promote healing. Although in each article a different Dressing material was examined, all of them showed the ability of these dressing materials to prevent infection and promote healing. Selecting a post operative wound dressing plays a major role in preventing infection and promoting healing. by applying it in Qatar it this could reduce the rate of infection in Qatar. Research on the materials used in their areas and select one of the most effective dressing materials will benefit Qatar.

Conclusion:

In hospitals, high rate of surgical site infection is one of the major complications of post operative wounds, which threaten patient’s health, increases hospital stay and cost. There are many reasons behind patients getting infection, such as not following universal infection control practice, not washing hands before and after patients care and by not applying aseptic technique in wound dressing. Selecting an appropriate wound dressing type is recommended to prevent infection and promote healing. Further wound assessment by nurses is recommended to be performed to ensure that the selected dressing material is right and the patient’s wound is progressing well.

Recommendations:

Proper wound assessment measuring tool is required, wound care specialist can conduct training sessions for the nurses to show them the proper way to assess the wound healing stages, and to document the wound development on a daily basis, to ensure that the selected dressing is effective and wound is healing well which will benefit Qatar in reducing infection rate. To give patient and family education regarding proper wound handling by keeping wound site clean and dry to prevent infection and, to teach about signs and symptoms of wound infection for early detection. To educate health caregivers the importance to follow the infection control policy by giving teaching classes to refresh staff knowledge regarding infection control practices.
References:


Preventing Medication Errors to Enhance Patient Safety by Bilan Ahmed

Introduction

Patient safety has been a major concern for health care professionals in all hospitals worldwide. One of the most fatal and critical issues that affect patient safety is medication administration errors. Medication error is an incorrect administration of a medication, by failure to give the correct drug, dose, route, or time, to the correct patient. Plus lack of information about patient drug allergy and sensitivity. Medication administration error is one of the most common types of medical errors. It is a serious problem that might result in an increase in the number of death rates at hospitals. It harms approximately 1.5 million people per year worldwide and it cost 3.5 billion dollars for treating drug related injuries (War on Drugs, 2011). Therefore this issue will be discussed in this paper, so we can prevent medication errors from happening after identifying the factors.

Issues

The issues that contribute to medication errors are divided into two main types: person-centered factors and system factors. Person-centered factors include; poor education which includes the lack of knowledge or experience of medication administration in new staff and nursing student, and the incompetency of nurses who fail to adhere to the 5 rights protocol in medication administration. Failed communication between doctors and nurses is also an issue which can be due to poor handwriting that can lead to confusion between two medications with similar names by sound like medications during telephone orders, or by writing non-standardized abbreviation and incomplete orders with unspecified dose, frequency, dosage form or route. Finally lack of education affect patients who may not know how to take the medication, how the drug acts, what is suitable time of day to take it and for how long. While System factors are divided into three factors. Heavy work load due to shortage of staff can lead to tired and exhausted nurses who are at risk of deviating
from standard medication administration protocol. There are the problems related to drug and drug
devices as infusion pump and parenteral delivery system failure may lead to drug miscalculations or
drug labeling packaging problems. Poor drug stocking and distribution of lookalike medications in
the same drawer without alert or tags may cause a delay in receiving the drug. The focus of this
discussion is system factors that cause medication errors and effects patient safety.

**Literature review**

Drug distribution and packaging issues has an influence on medication errors. Schimmel et
al, (2010) compared the frequency of medication administration errors of two different manual
medication cart filling methods: arranging medication by round time or by medication name. Since
medication errors occur frequently and the type of distribution system influences the risk of
medication administration errors, the aim of this study was to examine the frequency of manual
medication filling methods. Several studies proved that automated methods (automatically
dispensing machines to deliver medicines) can reduce the frequency of errors through several
studies, but not all hospitals or units can afford it. The objectives for this study were to explore the
types of medication distribution methods, the influence of manual cart filling method on medication
error, and omission or giving medication at the wrong time. This study was performed in the
Erasmus Medical centre in Holland from May to July 2009. It was done in the Orthopaedic unit which
contains 30 beds. All patients who stayed in this unit during this period were included and they were
86 patients. No consent or approval was required due to the Dutch law. Patient’s data’s was kept
confidential. Research methodology was quantitative and qualitative, and the study design was
prospective, observational study with a before-after design. Medication administration was
observed by four observers in two periods of ten days, except week-ends. They accompanied nurses
on each medication administration, but the nurses were not aware of the exact reason for this
observation and they were told that the study was to optimize the drug distribution system. They
classified medication errors according to the Dutch Association into: omission, intake of unordered
medication, wrong preparation, wrong dosage form, wrong route, wrong technique, wrong dosage, and wrong time (at least 60 min early/late). In the first ten days the medication cart was filled according to round time and they started to measure medication errors incidents. Then they changed to the second method, medication name. Two weeks after implementing the change, the second ten days measurements started. Criteria for this study included: the patient and ward characteristics before and after the change, frequency of medication administrations, and frequency of subtypes of medication administration errors as classified previously before and after the change. The first outcome was the frequency of medication error with one or more errors after the change compared to before the change. The second outcome was the frequency of subtype’s medication administration errors. After the change, 23% medication errors were observed compared to 19.4% before the intervention (not that much difference). The frequency of subtypes medication errors before and after intervention was statistically significantly different (p<0.001). Therefore Schimmel et al, (2010) found that the frequency of medication errors was not influenced by the type of manual method of cart filling. They also found that omission and giving the medication at the wrong time errors were detected when cart was filled according to name, and unauthorized errors (giving non prescribed medicine to a patient) were detected when cart was filled with medication name.

Alldred et al, (2011) examined the effect of formulation whether it is a tablet, or capsule, liquid or device such as an inhaler on medication administration errors, and the impact of monitored dosage systems (MDS) packaging medications in separate compartment in UK care homes. Geriatrics living in long term facilities is at high risk of medication errors and adverse events. The reasons for that were the multi-pharmacies, comorbidities associated with old age, altered pharmacokinetics and pharmacodynamics, and the complex medication management system used in care homes. The objectives of this study were first to determine if there were differences in medication administration error rates between tablets and capsules and other formulations. Second to determine if there were any differences in medication administration error rates between tablets and capsules dispensed in MDS and those dispensed in the manufactures original packaging. Alldred
et al, (2010) conducted this study on 55 UK care homes. The method used was quantitative. Samples were based on ownership, size, and type of care provided (nursing, residential or both). Residents who were prescribed one or more medicines were included in the study as a randomly sample. Data was collected from paper-based observation forms for medication error. They categorized medication errors into; tablets and capsules in MDS, tablets and capsules not in MDS, liquids inhalers, injectable, topical, and transdermal medicines. Errors were also classified according to whether the medicines were prescribed regularly or when required. Scores were allocated by the Care Quality Commission from one to four. One indicated that the standard was not met and four means that standard exceeded. Statistical analysis was performed. They found that the administration errors from tablets and capsules in MDS were 29.3%, liquids 11.9%, inhalers 3.8%, and the remaining 2.1% were topical, transdermal, or injections. On the other hand tablets and capsules in their original packaging not in MDS were associated with 70% medication errors. However when comparing liquids and inhalers errors in MDS or not, results showed significantly increasing odds of the MDS. This was related to not shaking the device, patients not using device properly, or the wrong device being used.

Holden et al, (2009) examined the impact of nursing workload on quality of working life and patient safety. Excessive nursing workload is one of the many work systems that affects the quality of care and patient safety including medication error. This study discussed medication errors, job dissatisfaction, and burnout. They conducted a study in United States of America, which included a quantitative and qualitative cross-sectional survey. Data was collected from registered nurses (RNs) at two Urban Academic Tertiary care free-standing paediatric hospitals. Approval from the two hospitals was obtained. Hospital A had 222 beds and hospital B had 162 beds. In each hospital three units were studied. Full-time RN only participated. The survey and cognitive interviewing were used as tools for this study. Survey measured with scores from 0 to 6 according to seven points. Points covering these items were: unit level workload, general job level workload, specific level workload, internal task level workload, external task level workload, job dissatisfaction, and medication error.
According to the outcomes of this study, they found that the external workload affects the medication administration task. An internal workload is related to mental effort and concentration. On the other hand, external is related to interruption, divided attention, and rushing. Only the external workload affected patient safety including medication error.

**Discussion**

The study of Schimmel et al, (2010) set out the impact of poor drug stocking and distribution issue on the frequency of medication administration errors. They compared the types of manual medication cart filling methods namely arranging medication by name or by time. The result of this study found that there is no difference between the two manual methods of cart filling in the frequency of medication errors, but the type of errors were only changed and errors rates stays high (Schimmel et al, 2010). Therefore other methods should be developed, such as an automated medication cart which was explained previously or bar code technology (Schimmel et al, 2010). Bar code technology consists of bar code reader that nurse can scan on the patient identification band to ensure the right identity of the patient, and then scan the barcode on medication to verify if it is adhering to the five rights (Schimmel et al, 2010). These two techniques were implemented in so many hospitals including the Heart Hospital in Qatar, and found helpful in reducing medication errors incidents. On the other hand Alldred et al, 2011 study involved formulation and packaging problems. The result of this study showed that medication administration errors were prevented when tablets and capsules where repackaged, but inhalers and liquid which cannot be packaged into MDS had higher rates of medication administration errors (Alldred et al, 2011). Although this study suggests that packaging system reduces the errors rates of tablets and capsules in home care, it must be noted that this way leads to significant cost and increased dispensing time. The repackaging involves pharmacy staff popping the medicines out from the original package and placing them into MDS (Alldred et al, 2011). The repackaging was not applicable on fluids and inhalers. Study findings suggest training the nurses in the safe administration for theses formulation types (Alldred et al,
Also putting Barcodes on medications by the hospital can reduce errors after repackaging. Although repackaging medication in Qatar are uncommon, but training nurses about formulation would help. Holden et al, 2009 study findings showed the impact of heavy workload on patient safety and result in increasing medication errors. Based on study findings suggestions include; reducing work load during medication administration time, redesigning work, and maintain staff adequacy (Holden et al, 2009). It is true that there is no single study about factors contributing medications errors in Qatar, but it is obvious that workload is one of the most factors. Suggestions from the study can be applied to reduce workload then medication errors in Qatar. Taken as whole it appears that these studies assess the main system factors contributing medication errors like drug distribution, packaging and work load. Other underlying system factors may include drug stocking, labelling, drug device defect, and pharmacy delay, but these were not discussed within the scope of this article.

Conclusion

In summary, this paper discussed one of the fatal patient safety issues which are medication errors. The main factors that contribute to medication errors were divided in to two types; person-centered and system related. Three studies were discussed and highlighted the influence of system factors such as drug distribution, packaging, and work load on the frequency of medication administration errors. Authors suggested using automated cart filling and bar code technique to avoid medication errors. Additional suggestions included training nurses on safe administration of liquids and inhalers, since there was a high incident of errors among that category. In addition to that staff adequacy, redesigning work, and reducing work were suggested as a solution for the affect of heavy work load. All these issues were addressed to reduce medication errors and improve patient safety.

Recommendation
Based on the evidence presented recommendations include using bar code technique and automated cart filling. Those two methods decreased medication errors incidences and reduced the dispensing time. It would be effective to use this two advanced techniques in a developed and rich country like Qatar especially in Hamad General Hospital. The Heart Hospital and AL-Ahli have implemented these methods and has proven at reducing the incidences of medication administration errors.

References


Pediatric home care minimizes central line infection by Mahlah Ali

Introduction

Home care an important part of the health care system as it allows people to live at home with support from health care professionals, which helps the patient live a normal life in the community. The home care program plays an important solution to the bed crisis as it decrease the number of patients in the hospital. In addition, it provides care to different ages, from pediatrics to geriatrics. In Qatar recurrent of central line infection is noted among the children in pediatric unit in the hospital. There is an important programs identified in a European country is home (total parental nutrition) TPN, which is not yet established in Qatar. It is important to understand how establishing home TPN in Qatar will help the children through minimizing the central line infection, and help them to be involve in the community setting.

Issues

There are many important issues raised regarding absence of home TPN in Qatar listed on complications, which include hospital reputation because of absence of an important system in health care area. There are many children with chronic illness are occupying bed and other patient waiting for admission and that lead to bed crisis, also family depression as their children are coming from outside country prepared for home care and the home care in Qatar not established, at this point the family loss the trust of the hospital because they didn't offer the care like outside country. Absence of pediatric home TPN will lead the children to stay in the hospital, which causes frequent infections of the central line and deterioration in the health status. The second issue is lack of hospital resources, there is a deficit in facilities and equipment. In addition the chronic patients in the hospital wasted hospital budget because of prolong admission. Last issue lack of knowledge of
pediatric home care staff, and to initiate the program will need long time. Pediatric home care is beneficial program for the children with central line. The central line infection is the focus in the literature review.

**Literature review**

The study of Bookuar, et al (2005), “Outcomes of Infection in nursing home residents with and without early hospital transfer”, the effectiveness of early transfer infection nursing residents to the hospital, means the beneficial of transferring patient with infection to the hospital instead of treating them at home. it was done through observational cohort study. The population of the study 2153 individuals in home care setting. The conclude that the earliest transfer of patient with infection from home care to the hospital the worse outcome. According to the authors, this result will help to improve the home care nursing. The authors suggested developing home treatment programs as solutions to decrease the recurrent hospitalization; they mention that infection nursing resident can be diagnosed and treated at home, which leads to decreasing infection (Bookuar et al, 2005). The strengths of the article was the way of grouping all the home care patients (resident patient) together and transferring them in same time to the hospital, weather admitting them or not to evaluate the effectiveness of early transferring, second strength was the tool that has been used, which was propensity score analytic the strongest method of observational studies. There were significant weaknesses one of them different nursing home resident, which have different factors influences the study illness type and level of education (Bookuar et al, 2005). The finding was the earliest transferring patient with infection to the hospital the worst outcome. It’s clear from this research that home environment is more safe for the patient than hospital.

Rosenthal, Maki et al (2010) “Impact of international nosocomial infection control consortium (INICC) strategy on central Line—associated bloodstream infection rates in the intensive care units of 15 developing countries”. The method of the study was Pooled CLABSI rates. The authors of international Nosocomial Infection Control Consortium aimed through this study to
reduce the central line infection rate, which was associated with nosocomial infection in the limited resource hospital. The study was done to decrease the central line infection through education of the hospital staff. In the study, the authors observed the central line infection rate and the infection control measures that have been followed in different hospitals. The result was dramatic changes after education has been given, the central line infection decreased, the total number of deaths patient from central line infection decreased by 58% (Rosenthal et al, 2010). The infection control performance has been improving, hand hygiene adherence increase to 60% when it was 50%. The numbers of unnecessary central line decreased from 4.1 to 3.5 days. The study shows very high level of adherence to the infection control practices by the staff. The maximum sterile precautions were used, starting from chlorehexidine 2%, 3-way stopcocks which have been replaced by closed connectors, all of these devices established on different limited resource hospital (Rosenthal et al, 2010). Finally the study showed a decrease of central line associated blood stream infection from 58% -54% during first 2 years (Rosenthal et al, 2010).

Waal, al (2011), wrote “High-tech’ home care: overview of professional care in patient on home parenteral nutrition and implications for nursing care”, the aim to evaluate the quality of home parenteral nutrition in the Netherlands. In this article, the authors focused on the importance of patient education to help patients by decreasing central line infection, occlusion and central vein thrombosis. The study was done through patient questionnaire, interviews and patient files analysis. Patient file analysis was done by collecting the information including the age, sex, disease, the period patient receiving total parenteral nutrition, number of central line infection, the number of contact of the nutritional team and nurses with the patient, number of hospitalization because of central line infection. In this research the authors evaluate the quality of home parenteral nutrition through monitoring the visit of home parenteral nutrition patient in outpatient clinic. The result was most of the patient complains of central veins related problems. The authors found an important issue, which were different home care nurse’s team leads to different performance of home parenteral nutrition procedure as result of lack of knowledge. Finally the author described the
important role of the multidisciplinary team to help the patient and family members to adjust to
dependent therapies of home parenteral nutrition, and especially home parenteral nutrition nurses,
who have important roles in educating the patient (Waal et al, 2011).

Discussion

The relationship of central line infection and home care has been addressed from three
articles. The article of Bookuar, et al (2005) showed the earliest transfer patient with infection from
home care to the hospital the worst outcome, it is clear from this article that the hospital
environment have a direct relation to the patient health, which lead to say the home environment is
the best for the patient health. The second article for Rosenthal et al (2010), in this study the
authors hoped to decrease the central line infection through staff education, the result was
improving the adherence to the infection control performance, finally the article of Waal, et al
(2011). They evaluate the quality of home parenteral nutrition in specific country; the result was
recurrent central line infection because of different performance of home parenteral nutrition
nurses. These studies help to approve the importance of developing pediatric home care in Qatar.

Conclusion

In conclusion home care is one of the important systems in health care area. In specific for
the children with central line Home TPN can solve the problem of recurrent of central line infection.
According to the literature review it is found that hospital area is full of infection in compare to
home environment. The second cause of infection was lack of staff knowledge, and non adherence
to the infection control guideline and practices. The staff education plays an important role in
decreasing central line infection. It is interested in concluding that home care and the education is
the solution to minimize central line infection.

Recommendation
Based on the discussion, it was found that a pediatric home care program for the central line patient help to improve the health status for the children, starting from enhancing children health in both physiological and psychological ways. Finally the suggestion of initiating pediatric home care to the ministry of health in Qatar will be very helpful for the children, as it will help them to be involved in the community, also it is recommended to start hiring staff and educate them regarding home care practice to start the program to be ready by the next year. In addition it is important to recommend that home care services should be for 24 hours, and with all sufficient supplies that children need to be deliver to there home, as it will be more helpful for the family instead of visiting hospital unnecessarily. It is recommended to initiate infection control committees in hamad hospital to provide frequent education, and to observe the infection rate after starting pediatric home care. Moreover monitor the family satisfaction of the home care services and in any point it can be reviewed.

References


Preventing Delay in Giving Stat Medication by Nawal Ali

Introduction

It is very important to give stat medication ordered for the patient within 30 minutes from the time it is ordered because if not given, the patient’s condition may deteriorate and this can increase the workload for medical staff and cost for treatment of the patient. It can also lead to a shortage of hospital beds as the patient will have to stay longer in hospital.

Issues

There are several issues leading to delay in giving stat medication. The first problem is pharmacy issues, which includes unavailable medication in the pharmacy. There is only one pharmacy unit for all the inpatient units and the pharmacy is a significant distance from the units. The second problem is nursing issues which include the deterioration in patient condition, because the delay in giving stat medication leads to increase the workload. The workload for the nurse often increases due to the extra time required to solve the problem. After, the nurse takes the blame for the delay in giving the stat medication, which often results in conflict between the doctor, nurse, patient and family, as the patient does not receive the medication on time. The third problem is physician issues like an inappropriate medication order. Some physicians use different abbreviations from those used by Hamad Medical Corporation (HMC), some have unclear handwriting, and some write the trade name rather than the generic name. The fourth issue is a shortage of nursing aid staff, which increases the workload, as they have to send patients to the radiology department or send blood samples. In the unit the stat medication is frequently ordered at different times for different patients; therefore the nursing aid must go to the pharmacy many times. Turnover leads to a shortage in nursing aid staff, who leave because of low salary, benefits and no promotions. Not
enough staff can lead to delays in getting the stat medication. This paper focuses on pharmacy issues, mainly the great distance of the pharmacy from the units and unavailable medication.

**Literature Review**

Temple and Ludwig (2010) addressed the technology involved in using the Carousel Dispensing Technology (CDT), which can provide safety for patients by preventing errors and delays in medication delivery. When medication errors and delays happen, the patient’s health condition usually deteriorates and complications develop. This often results in the patient remaining in the hospital longer and this costs the hospital more money.

This quantitative study measured the accuracy rate and the time to dispense the medication before and after implementation of CDT. This study was done at the University of Wisconsin Hospital and Clinics (UWHC), which have 471 beds including a trauma center, as well as cardiac, pediatric, transplant and neurologic medicine.

Temple and Ludwig (2010) claimed that the pharmacy technicians prioritized the stat medication to be dispensed within 20 minutes, through sending the order to a separate printer and dispensing it to the unit by the pneumatic tube system. The unit dose medication, which patients took regularly, as refilled on hourly rounds.

In this study, the space for each medication had been considered in the CDT. For example, larger medication like albumin bottles or those that have to be kept in refrigeration were located in a special separate location in the CDT.

Temple and Ludwig (2010) found that before implementation of CDT, technicians refilled the requested medication within 62 minutes. After implementation of the CDT, the time decreased to 53 minutes. Furthermore, the turnaround time for stat medication before implementation of CDT was 4.29 minutes for 297 orders, and after implementation of CDT it took 7.19 minutes for 411 orders. Finally, the accuracy after implementation of CDT increased. The accuracy was 98.73% to
complete filling the cart before implementation of the CDT and after implementation of CDT it increased marginally to 98.94%. They concluded that accuracy and decreased dispensing time for medication delivery improved patient safety (Temple & Ludwig, 2010).

Houston, Ray, Crawford, Giddens & Berner (2003) claimed that use of handheld computers like Palm or Palm OS Hand Spring Tero is increasing, because it gives the physicians information they need about the medications that they will use for their patients. The physicians using the handheld computers in their practice save time in prescribing the suitable medication and prevent medication errors (Houston et al, 2003). Knowing the available medication in the pharmacy prevents the physician from writing a prescription if the medication is not available. This decreases the time it takes to get the stat medication.

The methodology in this study was qualitative; questionnaires and interviews were used for two groups. The first participant group was patients who visit the university-based resident-staffed clinic, and the second participant group was the medical residents from University of Alabama. The sample size was 93 patients and 82 medical residents. The questionnaires were about whether the patients felt that the handheld computers interrupted the physicians in the examination room. The physicians were asked how the computers affected their workflow and whether they prevented errors.

Houston et al (2003) found that most of the patients had a positive view regarding using handheld computers in the examination room in the clinic. On the other hand, 10% of patients found it inappropriate for medical staff to use the handheld computers in the examination room as they may interrupt the physicians’ concentration during patient examination. Most of the medical residents found the handheld computers improved their decisions for the patients’ medication and saved the patients’ time. Through using the handheld computers, the medical residents expressed that many medication errors could be prevented, because the handheld computers help to search for the appropriate medication. However, some of the medical residents felt that it was not
appropriate to use of the handheld computers in the patient examination room, because it interrupted their work with patients (Houston et al, 2003).

Poon et al (2010) claimed that many of the adverse reactions to medication happened as a result of medication errors, which could be prevented. In this study, medication errors were divided into three types. The first error was related to timing; medication was given to patients before or after the appropriate time of the dose. The second error was related to non-timing errors like giving the wrong medication. The third error was related to the transcription order. The authors reported that by applying the Bar-Code Electronic Medication Administration System, the number of medication errors decreased (Poon et al, 2010), as well, it helped in saving time in dispensing the medication and promoted safety from adverse reactions from medication errors.

This study was completed in an academic medical center on one unit. This study is quantitative, as it measured the difference of timing and number of medication errors before and after applying the bar-code electronic medication administration system.

Poon et al, (2010) found that adverse reactions happen for three reasons. First, medication errors are related to delay in giving the medication or giving the medication earlier than the specific dose time. Second, errors are related to administration like wrong medication or wrong dose, which are considered non-timing errors. The third reason is wrong transcription errors. All these errors can be prevented by using the bar-code electronic medication administration system technology.

Discussion

Delay in administering stat medication can lead to deterioration in the patient’s condition and the patient may develop complications. The issues have focused on two reasons for the delay in giving stat medication. The first reason is that the pharmacy is a great distance from the units. This situation results in delays in getting the medication. As shown, when a delay in delivery of the stat
medication occurs, the patient’s health status often deteriorates (Temple & Ludwig, 2010; Poon et al, 2010). The second reason is the unavailability of the medication in the pharmacy. If the physician knows information about the medication in the pharmacy, this helps to decrease the time required to prescribe the suitable medication for the patient (Houston et al, 2003).

In Qatar hospitals, the pharmacy is located quite far from the units, and the doctors are unaware if a medication is unavailable. This situation causes delays in delivering and giving the stat medication. There are two solutions for these two issues. The first one is using the CDT technology, which needs a pneumatic system for implementation (Temple & Ludwig, 2010). The CDT can only be implemented in a short time in the Heart Hospital and Al-Wakra Hospital in Qatar, because both hospitals have pneumatic systems. Through implementing the CDT, the stat order will be sent to a separate printer and will not be mixed with other orders. This will help pharmacy technicians to prepare the stat medication first. Other hospitals in Qatar need to implement the pneumatic system before applying the CDT, which will take a long time. The second solution is to use the Bar–code Electronic Medication Administration System in which, the prescription will go directly to the pharmacy by electronic scanning. This can be implemented only in hospitals using a computerized physician-order entry and bar-code verification system, which is available in the Heart Hospital and Al-Wakra Hospital only.

Based on experience in HMC in Qatar, sometimes the medication is not available in the pharmacy, and the doctor only knows that fact after writing the order and hearing back from the pharmacy. Using the handheld computer will help the doctor to save time and get information about suitable medication availability in the pharmacy for the patient (Houston et al, 2003). The handheld computers would need to include a program to show the unavailable medication in the pharmacy, which could help in Qatar hospitals.

Conclusion
Delay in giving stat medication is a very serious problem which can lead to deterioration and complications in patient’s condition. There are many issues that have been mentioned that cause delays in giving stat medication, like physician issues, nursing issues, pharmacy issues and nursing aid shortage issues. The focus of this paper is on two pharmacy issues: first, the distance of the pharmacy from the units, and second, the unavailability of medication. Two solutions for delays in giving medication related to the distance of the pharmacy from the units have been described above. The first solution is the CDT technology which can prevent delays in getting the medication from the pharmacy (Temple & Ludwig, 2010). The pneumatic system needs to be implemented before applying the CDT (Temple & Ludwig, 2010). The pneumatic system is only available in the Heart Hospital and in Al-Wakra Hospital, so the CDT technology could be applied there first, then implemented in other hospitals after installing the pneumatic system. Another solution for the delays resulting from the great distance of pharmacy to the unit is to use the Bar-Code Electronic Medication Administration System. By using this system, the medication prescription is sent directly to the pharmacy, which saves time in sending the medication order. The Bar-Code Electronic Medication Administration System cannot work without a computerized physician order entry and bar code verification system (Poon et al, 2010). As a result, this system can be only applied in Qatar hospitals that have computerized physician order entry and bar-code verification systems. The second issue is the unavailability of medication in the pharmacy. According to experience in HMC, it is only after the doctors’ orders reach the pharmacy that a medication’s availability is known. By using the handheld computers, the physicians could get the information about the medication in the pharmacy (Houston et al, 2003). Also, a new program would need to be added to the handheld computers to show whether a medication is available. In this case, the time would be saved as the physicians would not need to rewrite a new prescription after receiving it back from the pharmacy when the medication is not available. Based on the literature reviewed and discussion above, the CDT appears to be the most appropriate short term solution for the Heart Hospital and Al-Wakra
Hospital, because they have the pneumatic system. For the other hospitals in Qatar, it could be long term goal to apply CDT, as they need to implement the pneumatic system first.

Recommendations

The CDT could be implemented in the Heart Hospital and Al-Wakra Hospital in Qatar within one to two years, as they both already have the pneumatic tube system. In the long term, it could be implemented in the other hospitals in Qatar after they have added the pneumatic tube system, which would take longer to do. On the other hand, the handheld computers like Palm or Palm OS Hand Spring Tero could be used in Qatar hospitals soon because they are easy to acquire and implement and easy for physicians to learn how to operate. Based on experience in the Intensive Care Unit at HMC, the physicians need to know the availability of medication before writing prescriptions, because sometimes some medication is unavailable, which requires spending unnecessary time to rewrite another prescription. An additional program in the handheld computers would be required to know which medications are available and which medications are not. These two solutions could be sent to the director of nursing at HMC, who could then discuss them with the director of the Pharmacy Department.

Reference


Retention Strategies for Nurses in Qatar by Ezdehar AL Ashwal

Introduction

Nurses live with the challenge of balancing their main tasks which are patient care and safety with many other job requirements. Nurses' responsibilities and extensions of their role are increasing. In addition to patient needs, a nurse may have to tell junior doctors what to do regarding patients' medicine as well as procedures. There is much documentation to fill out and unit equipment must be checked and maintenance forms completed in addition to other duties. These extra duties cause the nurses to struggle to meet patients' needs and finish their work in a limited time. Consequently, nurses become physically and mentally exhausted, and as a result, patient safety and quality of care can be jeopardized. These issues cause the nurses to leave their positions. Although, many strategies have been developed to solve this problem, nurses are still leaving their jobs in significant numbers.

The issue covered in this paper is the multiple responsibilities and extension of the nurse’s role which results in nurses becoming unsatisfied and leaving nursing. Retention strategies will be discussed. Specifically, keeping nurses who are skillful and experts is more cost effective than spending time and effort to train new ones. In this paper, literature that addresses the nursing shortage will be discussed. Accordingly, solutions will be recommended as they are useful to the Qatar health system as a serious shortage of nurses.

Issues that make nurses leave their jobs

Economic issues:

Nurses' salary is not equal to their work load; nurses have a double workload due to shortage of nurses and the salary is the same. Some have been working six years without an appreciation letter or financial reward.
Psychological issues:

There is little value placed on nurses' concerns and ideas. In addition, there is significant job stress and related diseases. There are work conflicts and dilemmas that are mostly ignored by the charge nurses and nurses cannot cope with medical field developments and continuous change.

Management issues:

Leadership style is a problem. For example, most styles are either authoritarian or laissez faire and there is a communication deficit. During endorsements some important information is not stated and causes the unit problems, delays or a refusal to change nurses' jobs if they have health or family issues, so nurses decide to resign. In addition there are few career opportunities. For example, the bedside nurse stays in this position for seven years. Also there is little job progression or professional development. Mandatory overtime exists as does an increased workload. There are multiple responsibilities and extensions of nurses' roles, they must teach new doctors what to do, check equipment and ensure equipment is maintained, attend educational lectures after their duty ends, all in addition to the most important task, patient care and safety. There is also a continuous increase in patient numbers and a decrease in the number of nurses. Moreover, there is a lack of team work among nurses due to less staff which leads to exhaustion plus the amount of paper work is increasing and there are new forms to learn about.

Literature review

The quantitative study by Ellenbecker, Samia, Cushman & Porell (2007), describes the strategies implemented by home care agencies and their effect on nurses' job satisfaction and the intention to leave work. Data were collected from 123 New England agencies during personal interviews using a structured questionnaire. A sample size of 2,459 nurses from home health care finished and submitted a self-administered questionnaire. In this survey, Home Healthcare Nurse Job Satisfaction Scale was used to measure the job satisfaction of individual nurses. The result was that
if the nurses are satisfied with their work, they probably will stay; on the other hand, the less job satisfaction they experience, the most likely they will leave their jobs. In this study the most significant retention strategy that made a major difference in job satisfaction was shared governance or shared decision making.

*Shared governance is a formal agency mechanism instituted by management to involve nurses in decision making. The goal of shared decision making is to provide nurses an active role in decisions that affect their work environment and their nursing practice. Nurses are encouraged to participate in decisions made at both the self-governed unit and at the system level (Ellenbecker et al, 2007, p.45).*

In other words, when nurses have the chance to communicate through the organization levels to share in decision making, they will become confident to develop and design their work practice because it is their daily challenge environment. Also, it means building up a positive work environment where nurses and their practice are supported by their colleagues, managers and administrators via strong, shared management and leadership who validate their staffs’ ideas. In addition, work responsibilities need to be redesigned to lessen the stress and decrease work load and job demands; thus, a reasonable work load was valued by home care nurses. Moreover, nurses must have control over their work and task autonomy; that is, having the authority and independence to make decisions in their care and the freedom to plan and organize their work (Kramer & Schmalenberg, 2003; McCloskey, 1990 in Ellenbecker et al, 2007). In a study of 320 nurses from a large Midwestern hospital, results showed that task autonomy is a significant factor in nurses’ job satisfaction (McCloskey, 1990 in Ellenbecker et al, 2007). The authors add, it is the administrator’s responsibility to identify and understand all work environment issues and address them in effective ways to gain nurses’ satisfaction (Ellenbecker et al, 2007).

Another study using both quantitative and qualitative methods by Ramanujam, Abrahamson & Anderson (2008) examines the relationship between nurses’ perceptions of job demands and their
perceptions of patient safety. The survey included questions addressing staff attitude regarding the workplace environment and patient safety. Questions were mailed to 430 registered nurses. “A recent survey found that 96% of nurses and 90% of physicians, pharmacists, and administrators believe that nurses have the primary responsibility for the prevention of harm to patients in the hospital settings” (Cook et al, 2004 in Ramanujam et al, 2008, p.144). Alternatively, an increase in work volume and number of patients nurses are handling make the nurses exhausted and lose control over their work. This results in jeopardizing patients’ safety. The overwhelming demands of their daily profession, solving conflicts, and meeting immediate needs result in the nurses being too busy to meet patients’ safety. For instance, when the nurse to patient ratio increases, the possibility of preventing complications decreases. In fact, each patient added to nurse workload increases the chances of death from medical complications by 7% (Aiken et al, 2002 in Ramanujam et al, 2008).

Moreover, every addition to work demands leads to errors and near misses due to system dissolution and burdened workplace environment. This leads to nurses receiving punishment, including the full responsibility for negative patient outcomes (Ramanujam et al, 2008, p.145).

“Nurses are concerned with patient safety and care, but with all the demands placed on us by other departments, patients, families, physicians, etc., it becomes harder to accomplish your goals as to why you’re even there” (Ramanujam et al, 2008, p.148). The analysis of this study showed that perception of control over one's work has a direct relationship to patient safety. That is, when work volume and demands increase nurses become stressed and burn out this causes nurses lose concentration and control over their work. As a result, patient safety can be at risk. In contrast, nurses who feel control over their practice become confident and able to deal with and manage daily challenges successfully, which can lead to nurses' productivity and job satisfaction (Ramanujam et al, 2008).

The third quantitative study by Tremblay, Pallas, Gelinas, Desforges & Marchionni (2008) aimed to investigate the relationship between dimensions of the psychosocial work environment and the intention to quit among new generation of nurses, by using a self administered
questionnaire. The Job Content Questionnaire is designed to measure the social and psychosocial characteristics of jobs. The sample size is 309 nurses just starting their careers; ages from 20 to 25 years. The analysis of “data from 11 turnover studies among nurses indicated that work content and work environment variables had a stronger relationship with satisfaction than either economic or individual difference variables” (Irvine and Evans, 1995 in Tremblay et al, 2008, p.725). Authors found that: a) the discrepancy between the high strain work tasks and minimal reward plus b) managing these tasks in a negative environment with no support or positive relationships in the setting full of psychological tension plus c) the stress nature of the work are the most common causes that lead half of nurses to leave the work force, especially newly hired nurses. Other reasons were inadequate salaries and the need to continue study and further education (Tremblay et al, 2008) According to a survey done in Canada, which included nearly 19000 nurses to look at their work and health, 67% reported that the work they are doing is too much for one person and 45% report that the time given to accomplish this work is not enough (Canadian Institute for Health Information, 2006 in Tremblay et al, 2008, P.371). Authors also found the imbalance between a heavy work load and minimal reward received led the nurses to leave their jobs at the beginning of their career. Thus, rewarding nurses either financially or through career opportunities like continuing education can achieve nurses' satisfaction (Tremblay et al, 2008). These rewards can be through managing daily challenges effectively and encouraging helpful work environment that gives frequent praise and appreciation for nurses' enormous work. Nurses should have many opportunities for career development, promotion and lifelong learning. Otherwise, if the work conditions do not improve, nurses will leave the career to meet these needs elsewhere (Bogdanowicz & Bailey, 2002 in Tremblay et al, 2008, P.730).

Discussion

Nurses in Qatar have multiple responsibilities: teaching new doctors what to do, ensuring equipment is maintained and meeting patients' relatives' requirements. These responsibilities are in
addition to the most important task, patient care, which includes preparing and administering medicine as well as preparing patients for intended procedures. Managing all of this with less staff results in burnout and unsatisfied nurses. This causes them to leave their jobs. Ellenbecker et al (2007) found in their study that if nurses are satisfied in their jobs they will stay and if they are not satisfied, they will leave. The same survey found that shared governance is valued by home health care nurses, results in job satisfaction and leads to nurses’ retention (Ellenbecker et al, 2007). Thus, implementing shared governance in Qatar health care systems would give nurses the right to share in decision making regarding their units and system levels. Decisions which are agreed on by all are more likely respected by all health care members and followed. When nurses participate in decision making that affects their work and their environment they will likely choose the decision which is more practical, useful, convenient and which will ease their practice. On the other hand, shared governance gives them the confidence and the courage to confront, negotiate or compromise on unwanted decisions. Open and formal communication through all system levels would help to update healthcare professionals and senior management on nurses' concerns and issues. Shared governance would serve as a tool for continuous evaluation to nurses' dissatisfaction issues and address them on a regular basis to maintain job satisfaction and evaluate retention strategies.

Based on six years' of nursing experience in one surgical ward, the nurse typically handles three to four patients in the morning shift as well as completing doctor' orders, possible referrals, large amount documentation and arranging appointments for patient discharge. The efforts to manage all work demands without any mistakes make nurses physically and emotionally exhausted. That is, if any error occurs it will be considered the nurses' mistake; staff shortages and work load are not considered. This puts nurses under stress, during and after their duty; they often feel after their shift that they should call the unit if they remember something that was not done. Because of that, many nurses in the unit apply for transfer to much quieter areas like out patients’ clinics or nursing in schools. As identified by Ramanujam et al (2008), nurses are the front line to prevent patients from harm. The overwhelming demands of daily work make nurses too busy to meet the
patients’ safety needs and lead to errors and near misses. Moreover, when the nurse to patient ratio increases, the chance of preventing complications decreases. Ramanujam et al (2008) added that the control over work is the solution. Thus, the managers of health care systems in Qatar should sense the huge costs of overload on nurses’ practice. Nurses have many responsibilities that must be done in specific time frames in particular ways. Nurses become exhausted, feel depersonalized and stressed out, while doing their best to meet job demands; their quantity of work increases; on the other hand, the quality of patient care and safety decrease. That is why nurses’ job descriptions should be restructured to match the changes in the nursing field. In addition, health care systems in Qatar should start by decreasing paper work to its minimum. Nurses would then have a reasonable work load, one they can organize, prioritize and have control over. This will result in higher quality and safety in patient care, lessen stress and increase job satisfaction and nurses' retention.

Nurses working in Hamad General Hospital, claim that their salary should be increased to match the workload and the increased job demand. In the absence of team work due to fewer staff members, most of the times nurses are too busy to help each other. These are the claims of the expert and skilled nurses, so one must ask how this situation affects new and inexperienced nurses. No doubt they likely feel uncomfortable and incompetent. They are no doubt frustrated from their first failure to meet the job goals, and this could lead them to resign. According to Tremblay et al (2008), the imbalance between high job strain and minimal reward, plus inadequate salary and the need for continuous study, make nurses leave their jobs. Moreover, managing job demands in an environment full of tension, negative and unhelpful relationships lead half of the nurses to leave the work force, especially newly hired nurses. The way out of these problems as identified by Tremblay et al (2008) is to increase nurses’ salary to match their workload. Rewarding them financially or through career development and promotion along with frequent commendations and praise for their hard work would increase job satisfaction. Moreover, both managers and colleagues should contribute to a positive and helpful environment. Thus, health care systems in Qatar, especially the ones with large shortages of nurses, ought to increase nurses' salaries to equal their effort. Plus,
nurses could be rewarded in several ways: financially, by giving them the opportunity to continue their education, or by career development and promotion. Thus, they would be less likely to feel that their issues and concerns are ignored and overlooked. On the contrary, they would feel valued, prized and respected. On the other hand, health care systems have to develop and encourage a healthy work place. For instance, managers should support and reinforce nurses' positive relationships and give continuous feedback regarding nurses’ daily challenges. Therefore, frequent praise and more tangible kinds of appreciation of nurses’ massive efforts, would help satisfy their professional needs and result in attracting new nurses to the field.

Conclusion

Many factors lead nurses to leave their jobs. The ones addressed in this paper are work overload and its sub themes, which are nurses’ multiple responsibilities and role extension; increased patient numbers versus a shortage of nurses; less staff plus increase job demands. These lead to absence of teamwork and an unhelpful environment. The literature review showed that many responsibilities and extra work made nurses stressed and overworked and want to leave their jobs. Shared governance was a retention strategy that home health care nurses valued and made them satisfied with their work. Through it, nurses express their concerns and issues, which ends in decisions that are followed throughout the organizational levels. This shows respect to nurses’ ideas and allows them to renew and redesign their work environment. These result in increased job satisfaction which reflect positively on the quality of patient care. Thus, applying this strategy the Qatar health system likely have the same satisfactory results and advantages.

Regarding the increase in patient numbers, work demands and nurses’ shortage, the literature review reveals that an increase in nurses’ job demands and volume makes them exhausted and stressed so they lose control over their work. This can cause medical errors and jeopardize patients’ safety. Since quality of patients care and safety are the aim of any health care system, Qatar health care systems should take a second look at nurses’ job descriptions to assure reasonable work load.
That way, nurses can control and manage their practice effectively to achieve job effectiveness, satisfaction and patients’ safety.

In addressing the issues of staff shortages plus increased job demands leading to absence of teamwork and an unhelpful environment, the literature reveals that newly hired nurses want a salary equal to their efforts, as well as rewards such as career development and continuous study opportunities. Also, work relationships should be enhanced and a positive environment should be built. Nurses' salaries in the Qatar health system should be increased to match their efforts and they should be given the opportunity to grow through work and continuous education. In a positive and supportive environment, this would show that they are valued and their issues are not ignored. As a result, nurses would be satisfied and would stay in the work force.

**Recommendations**

It is recommended that a shared governance strategy be implemented in Hamad General Hospital. This is the best choice because it would create a regular health care professional union to discuss the system issues and how the hospital departments affect each other in negative or positive ways. In shared governance, i.e., shared decision making, nurses’ voices would be heard and their issues would be discussed. Decisions would be evaluated and validated until each party was satisfied and agreed on them. In this way, each department would share and be aware of any new policies, practices or equipment. Thus, decisions would go smoothly through the system with less resistance and conflict because each department’s employees would be aware of and prepared to accept the change. Shared decision making would save time, effort and money; on the other hand, it would achieve employee job satisfaction. This could be implemented through convincing the director of nursing (DON) in Hamad General Hospital about the importance of applying shared governance in the system. It would have a significant effect on nurses’ retention strategies and through it, nurses could achieve the other retention strategies like salary increases, rewards and a decrease in job demands. It is therefore essential to convince Hamad General Hospital administration to adopt the
shared governance strategy. This will be through orienting all Hamad General Hospital departments through the DON about shared governance benefits and advantages and form a group of the ones who support the idea by the first of February 2012. This group has to set the shared governance decision committee principles and goals to convince the hospital administration to implement the committee by the 30 of April 2012.

References


Problems in discharge planning by Huda Al Ashwal

Introduction

Usually, it is not expected that cardiac patients come back to the emergency department within one month post treatment. However, a significant number of those who have been recently discharged from the ward at Hamad Medical Corporation (HMC) are coming back to the emergency to be readmitted to the same ward. Readmission can affect patient safety, delay in treatment, and at the same time prevent other patients from accessing the needed care. Therefore, this serious issue must be addressed and solved as soon as possible. Implementing the right solution for the readmission problems will be beneficial for medical societies around the world because many share the same issues.

There are many causes for the readmission including lack of education, lack of trust for the health care system, ineffective doctor rounds, lack of financial social support, and problems in discharge planning. The first cause of readmission is lack of education and this issue includes, patients refusing important procedures, medications, change in diets, and the need to stay in hospital for treatment. This may affect their health and cause readmission. Also, patients are not informed of their rights, nor is the health care team providing full details about the treatment, therefore, patients are not comfortable when receiving treatment. The second cause is lack of trust for the health care system. Due to previous experiences, patients do not trust the medical treatment, and moreover, nurses have no time to be patients’ advocates due to increased numbers of patients and a shortage of staff. Patients are being seen by different doctors in the outpatient clinics. The third cause is ineffective doctor rounds. Doctors often hurry through rounds, which causes them to miss important details that can change the method of treatment for the patients. Also doctors are seeing too many patients per day. Furthermore, the number of patients in the emergency department waiting to be admitted is increasing, and this makes doctors discharge
patients early from the inpatient units. Moreover, doctors are not using best treatment practice. The next issue is a lack of financial support; for example, patients who are visitors have to pay double for all hospital services. Therefore, patients are not getting the right treatment at the right time.

Another important issue is the lack of social support. Some patients do not have help for the activities of daily living, medication, and transportation to the clinic for scheduled appointments. The final issue is problems in discharge planning such as premature discharge, which occurs to decrease the number of patients who are waiting in the emergency department. The specialist is depending on the new resident to write the final discharge orders without supervision, and not involving the support person in the discharge plan to help in the financial and social problems, as well as other patient needs.

**Literature Review**

Nagata, Tabata, Ooshima, Murashima, Sumi, and Haruna (2004), the authors of the article “Current status of discharge planning activities and systems: National survey of discharge planning in Japan” explain the implementation of discharge planning in this quantitative study. In this quantitative study, a questionnaire was mailed to 3268 hospitals, but only 1359 answered the questions. The variables examined were “characteristics of hospitals, the discharge needs of patients, system for discharge planning, and implementation of discharge planning” (Nagata et al, 2004, p. 89). This survey showed that a majority of hospitals have gone through discharge problems such as patients being discharged prematurely which causes deterioration in patient’s condition. This increases hospital costs due to patients’ readmissions. The authors stated, "More hospitals that had discharge planning departments implemented almost all activities of discharge planning than did hospitals without such departments; these results indicated that providing support for discharge is a complex process, with potential for many difficulties"(Nagata et al, 2004, p. 92). They found a relationship between the implementation of a discharge planning department, and other variables such as providing a department for discharge planning, hospital bed capacity, patient and nurse
ratio, and having beds for long term care patients. When there are enough staff nurses on the ward, they can do the required referrals to help in discharge planning, but most of the time they are busy with other tasks. Almost 30% of the hospitals established a discharge planning department, and this step proved that discharge planning is extremely important, particularly for referrals to home care, and social services which assist patients and their families to predict and prevent future risks that may occur (Nagata et al, 2004).

The authors, Hekmatpou, Mohammadi, Ahmadi, and Arefi (2010) discussed discharge processes in patients with heart failure using a qualitative study in Iran. Their objective “to explore the concept of discharge and its associated factors” (Hekmatpou, Mohammadi, Ahmadi, & Arefi, 2010, p. 389). Three themes were mentioned related to medical team, health-care system and patients plus their families. In a 2 year qualitative study, patients with heart failure were selected with their families, doctors, and nurses over 2 years in Tehran University of Medical Sciences. Seventeen patients between 48-82, 7 families, 10 nurses, and eight cardiologists were interviewed using open-ended questions. Each interview was analyzed before starting the next interview. The outcomes showed inadequate patient discharge: half of the patients were given no education to continue the treatment, and the patients did not get information about the importance of the follow up after discharge. When analysis was done, it showed that the doctors, nurses, and patients thought that discharge was considered the termination of professional duty. Therefore, the authors advised that post discharge care must have a regular follow up for each patient with chronic conditions. “A scientific discharge plan ensures long-term provision of resources and services for the patients and helps their care-takers feel better prepared for the challenges following discharge from hospital” (Hekmatpou et al 2010, p. 394). The study addressed three factors. The first factor related to the treating team, in which the nurses are spending less time with patients due to different shifts and lose their enthusiasm while working which may affect discharge planning. The second factor related to the health-care systems’ lack of follow up to the patients post discharge, less education for patients, and their families, and the hospital managers who are less involved in organizing
discharge planning. Moreover, there is a "severe shortage of nurses, weak use of resources, 'it's not my job' syndrome" Hekmatpou et al, 2010, p. 394). The third factor related to patients and their families, "all patients and families participating in the study admitted to lacking the sensitivity to demanding education and discharge plans from the treating team” Hekmatpou et al 2010, p. 395). Because there is no one to supervise the health-care system the discharge planning process becomes weak.

Day, McCarthy, and Coffey (2009) studied the discharge co-coordinator role in the healthcare departments of acute hospitals by using a qualitative method in the Republic of Ireland. Six nurses working as discharge co-coordinators were chosen. The nurses had to have at least 2 years of experience in this field. They used Morse and Field’s (1996) semi structured interview method. The authors found three categories when they finalized the interviews. The first category was the assessment which include identifying patients needs in the activity of daily living, continuity of care by the support person. The second category was the communication when referring the patient to the needed specialty, either geriatric facility, home care by using telephone or case conferences. The third category was the multidisciplinary work used to develop different teams in the community, and hospital. It was noted that many factors that affect discharge coordinators role such as the unavailability of services that meet disabled, geriatric, and patients needs, lack of expert coordinators, and difference in age groups. Finally, the authors agreed on changing the usual polices, and they highly recommended education for the co-ordinators to enhance the discharge process (Day, McCarthy, & Coffey, 2009).

Discussion

Though there are many issues that contribute to readmission, problems in discharge planning is the most significant in Hamad Medical Corporation (HMC). Premature discharge occurs frequently to decrease the number patients who are waiting in the emergency department. This issue was presented also by the authors Nagata et al, (2004) when they mentioned that patients in Japan were
discharged prematurely, which caused deterioration in their health status. In the survey of Nagata et al., (2004), a suggestion was given regarding implementing a discharge planning department to guarantee continuity of patient care post discharge. However, not all the hospitals could afford the cost of having a new department.

Based on observation in the HMC cardiology department, new residents frequently are writing final discharge orders without supervision. Discharge problems also exist elsewhere, in Iran as identified by Hekmatpou, Mohammadi, Ahmadi & Arefi (2010), the lack of supervision by the hospital manager of the treating team frequently disrupts the discharge planning process, and makes the health care system ineffective because the patient would often be readmitted. Therefore, they encouraged changing their attitude regarding discharge. The discharge plan must be made on admission, and extend to after discharge for each patient.

The experience in the HMC cardiology department shows that the treating teams are not involving the support person in the discharge plan, which would help with the financial and social problems and other patient needs. In the Republic of Ireland the authors Day, McCarthy & Coffey (2009) confirmed that assessing patients' needs is highly important by all participants, which includes the patients’ families’, and if problems are identified early, complications can be prevented. Therefore, they emphasize the huge role that the discharge co-ordinator plays, such as planning, liaising, and communicating with all the health care team members to appraise the quality of discharge planning process. Qatar is experiencing similar issues, thus the health authority is starting to establish a discharge planning system.

**Conclusion**

In summary, readmission to the same ward within one month should not occur because this affects patient health and safety. In HMC it has been observed that a high percentage of cardiac patients are readmitted to the hospital. This is a problem that needs to be dealt with. Many issues
are mentioned in the literature, and include reasons behind readmissions, and the problems in discharge planning are explored in detail. All three articles in the literature review concentrated on finding solutions to prevent readmissions, however each article presented a different solution. To solve the premature discharge issue, the authors Nagata et al, (2004) introduced a discharge planning department, which was already established by a few hospitals in Japan, but not all hospitals could implement it. Hekmatpour, Mohammadi, Ahmadi & Arefi (2010) found a solution for the lack of supervision of the treating team, which is to make the medical staff more aware of the discharge planning problem. This is not the only solution. Lack of supervision is a minor issue to focus on, though, as there are many aspects to consider in solving the readmission issue. In the Republic of Ireland, Day, McCarthy, and Coffey (2009) highlight that the discharge co-ordinator plays an effective role in preventing readmissions. It is clear that the issue of discharge planning is significant and many countries besides Qatar are searching for solutions to improve their systems in this area. Finding workable solutions will prevent many readmissions from occurring, especially if the system is standardized throughout the entire medical community.

**Recommendations**

HMC should hire discharge co-ordinators to address the readmission problem in Qatar. The discharge co-ordinators can fulfill a major role in preventing patient readmissions because they would enhance the best practice used by the multidisciplinary team to deliver quality health care to patients and their families. It is an applicable solution, because the experience in the cardiology department of HMC shows that an effective solution is urgently required. Currently, there is a shortage of beds in HMC due to readmission issues caused by poor discharge planning. This solution could be implemented within a short time frame. Within a period of three months, qualified nurses could be trained to carry out this crucial role. In the long term this will increase patients trust in the health care system because they will recognize that they are receiving the best health care. In both short and long term, implementing this solution is cost-saving because readmission results in
overtime payments to medical staff, and extended stays in the hospital, thus increasing health costs.

For these reasons, choosing discharge co-ordinators is the best solution to dramatically reduce readmission, and promote health care all over Qatar.

References


Readmission Due to Improper Discharge Planning by Abeer Awad Al-Saadi

Introduction

Readmission of patients has a negative impact on the health care system. Readmission is often related to poor discharge planning. We need to increase our understanding of readmission of patients after discharge to improve the quality of the health care system and the health outcomes for the patients and decrease the cost of medical services. Readmission can be due to many issues. These issues must be studied well in order to avoid or minimize readmission of patient to the hospitals, reduce the demand on hospital emergency services and ensure better health outcomes for the patients.

Issues

The reason for readmission can be related to many issues. The first issue is medication, which can be the wrong prescription (e.g., medication is not related to the disease or is due to improper assessment). The patient refuses to take medication due to lack of knowledge about effect and side effect. The second issue is improper discharge planning, due to no time to provide proper health teaching and no relative available during discharge time. The third issue is incorrect practices such as improper doctor assessment and wrong diagnosis because of doctors need to see many patients at the same time. Other incorrect practices can be improper nursing skills and lack of discharge education due to nurses overloaded by many patients. Lack of access to other professionals such as case manager increase the workload on the nurses. This creates professional workload issues. The fourth issue is lack of patient and family education. Which mean patients and their families not receive enough education about disease, treatment and post discharge plan due to less patient health educators in the hospital and no time for the nurses to provide health education. The last issue is patient not following his/her clinic or appointment related to lack of access in the community (patient can't wait for long time) and less community services such as home care and health center. This paper focuses on improper discharge planning.

Literature review

Nosbusch, Weiss and Bobay (2011) " An integrated review of the literature on challenges confronting the acute care staff nurse in discharge planning" claim that preparation for patient discharge should begin from the first day of admission. Acute care bedside staff nurses play a positive role in identifying post hospital discharge needs and barriers in the discharge planning process. The aim of this integrated review, qualitative and quantitative study was to analyze and
synthesize previous studies and research that investigated bedside staff nurses knowledge, practices and experience relative to hospital discharge planning.

The review method included electronically scanning search terms of CINAHL, Medline, PsycINFO and dissertations and theses databases. This search focused on the studies and reports for the period 1990-2009. Sixty relevant articles were selected for the review, 38 of these 60 met the inclusion criteria for the integrated review. The selected articles were reviewed twice by a single reviewer. Seven themes were identified in the studies. These themes were (1) intra- and interdisciplinary communication, (2) system and structures, (3) time, (4) role confusion, (5) care continuity, (6) knowledge and (7) the invisibility of the staff nurse role in discharge planning (Nosbusch et al. 2010). These themes were discussed separately in order to recognize the factors affecting discharge process. In 27 from 38 studies that used in the review identified that proper communication (verbal and written) facilitated and improved the discharge planning process. The findings of 10 studies identified that lack of effective support system and structure affect the patient discharge planning process. Ten studies identified that lack of time among staff nurses is a barrier in patient discharge planning. Lack of clarity about the nursing role as discharge planning coordinator and leadership were identified in 8 studies. Post discharge health teaching for the patient and family caregivers was effective in the discharge planning process. Six studies found that maintaining adequate patient and family knowledge about community health resources and services facilitated discharge planning process. Four studies found that discharge planning was an invisible component of the staff nurse role and that nurses should provide discharge teaching during patient care as well (Nosbusch et al. 2010).

Almborg, Ulander, Thulin and Berg (2009) article, "Discharge planning of stroke patient: The relatives' perceptions and participation" stated that having a stroke affects both the patient and their relatives. Involvement of the relatives in discharge planning and goal-setting facilitates the patient discharge planning process and improves patients' health outcomes and rehabilitation. The aim of this qualitative and quantitative study was to describe the relationship of relatives' perceptions of participation in discharge planning process. The study sample was comprised of 152 relatives of acute stroke patients admitted to a stroke unit during 2003 - 2005. Data was collected through interviews after discharge using "Relative's Questionnaire about Participation in Discharge Planning". It measures the relative's perceived participation in three subscales: Relatives-information- illness, Relatives- information- care/support and Relatives- goals and needs. Also a visual analogue scale (VAS) instrument (1- 10) was used to measure the overall rating of relative's perceived participation in discharge planning. The results of the study showed that among the
relatives, 56 - 68% reported positively according to R- information- illness. About 80% perceived on participation in goals and needs, also 46-53% reported that they did not receive information about care, medication, rehabilitation and supports, found readmitted in short time after discharge. Also the value of VAS score was 3.89 that relatives perceived participation in discharge planning. The authors stated that "the professionals need to develop strategies to involve relatives in sharing information, goal-setting and needs assessment in discharge planning" (Almborg et al. 2009).

Naylor et al. (1999) article" Comprehensive discharge planning and home follow-up of hospitalized elders" claimed that comprehensive discharge planning implemented by advanced practice nurses reduce patient readmission of elderly patients. The aim of this study was to examine the effectiveness of advanced practice nurses in the discharge planning process and post-discharge intervention for elders at risk for readmission. This is a qualitative study; with a randomized clinical trial with post-discharge follow-up patient. The study sample was a total of 363 patients, divided into two study groups. The Control group (186 patients) received the routine discharge planning for adults patients. The Intervention group (177 patients) received comprehensive discharge planning and home follow-up protocol designed for elders at risk for readmission and implemented by advanced practice nurses. By week 24 after the hospital discharge, the control group was found to be readmitted more often than the intervention group. Elderly patients with poor health outcomes are risk for hospital readmissions. This group of patients need comprehensive discharge planning and post discharge follow up by advanced practice nurses. The comprehensive discharge planning strategy can reduce readmission of at-risk elder patients, lengthen the time between discharge and readmission, decrease the cost of providing health care and promote positive health outcomes (Naylor et al. 1999).

Discussion:

Based on observation in Hamad General Hospital many factors can affect discharge planning process. Lack of clarity about nurses' role in the discharge plan can be found in any other hospitals. Nosbusch, Weiss and Bobay discussed the factors affecting discharge planning process and found that lack of clarity about nurse's role as discharge planning coordinator and leadership identified as a barrier in patient discharge planning process. The authors suggested new nursing roles such as Admission-Discharge-Teaching Nurses and Clinical Nurse Leader. These new nurses role can be implemented in Qatar to facilitate discharge planning process.

Based on experience in Hamad General Hospital, when patient's relatives do not receive information about care, medication, rehabilitation and support, the patients are more likely to readmit. Clinical
nurses and other health care providers must ensure that patient's relatives are involved in discharge planning. Almborg et al (2009) shown that 46 - 53% of patient reported that they did not receive information about care, medication, rehabilitation and supports, and were readmitted in short time after discharge. The authors stated that involving the patient's relatives facilitates discharge planning process.

In Hamad General Hospital, Based on experience patient who received health education about discharge planning by patient's educator shown better health outcome. Naylor et al (1999) assessed the effective role of advanced practice nurses in implementing comprehensive discharge planning and home follow up system. When the patient received good education about disease, treatment, and follow up by advanced nurse practice, it will lead to good patient health outcome, which will reduce patient readmission.

Conclusion

All clinical nurses and other health professionals should be encouraged to use comprehensive discharge planning by conducting patient evaluations, standardized instrument measures patient post discharge needs. Comprehensive discharge planning is an effective evaluation tool to address interventions that help health care leaders in Qatar to identify patient post discharge needs and to improve patient health outcome.

Effective discharge planning is important in Qatar as it will reduce the rate of patient readmission and decrease the cost of health care. It can also prevent further problems such as hospital bed crises which affect the quality care system.

These studies and strategies can be a starting point for Qatar to improve patient discharge planning process in order to reduce patient’s readmission, to improve the quality of health care and improve patient health outcomes for patients of Hamad Medical Corporation.

Effective discharge planning is important in Qatar as it will reduce the rate of patient readmission and decrease the cost of health care. It can also prevent further problems such as hospital bed crises which affect the quality care system.

Recommendation:

From these studies, many suggestions and recommendations can be implemented in Qatar that will help to achieve remarkable change in discharge planning process. One of the suggestions to improve communications among nurses is including a discharge preparation summary at each hand off. Some reports also suggest that electronic decision support and discharge referral systems
facilitate communication among care providers and agencies. Also discharge checklist is one of the strategies that improve direct communications between nurses and patient care providers. Many reports suggest new nurse’s roles; such as Admission-Discharge-Teaching Nurses (ADTN) to improve discharge planning and patient education. Another nurse role is the Clinical Nurse Leader responsible to facilitate care continuity, interdisciplinary communication, patient care quality and other important issue including discharge planning. One strategy is an educational leader of all care discipline about effective discharge planning, also all nurses receive exposure to technological advances, such as telehealth. These recommendations will be submitted to my head nurse and nursing superiors in order to implement these recommendations in Hamad general hospital.

Reference


The effect of health education in reducing hospital readmission among patients with diabetes by Wafa Alsaadi

Introduction

It is common for patients with diabetes to be the largest population using health resources because of the nature and the complications of the disease. Many studies show the rate of readmission of diabetic patients has increased. This issue is important because it is linked to poor management of the disease either by the patients, family, or the health care system due to many issues. Poor management of the disease can affect patients’ health condition, and cause readmission several times to the hospital which leads to increase in costs for medical services, heavier workload, and hospital bed crises. Readmissions are very costly for the hospitals. In the United States, the hospital costs are about $3.9 billion for diabetic patients only (Kim, H. et al, 2010).

Issues

Poor management of diabetic disease, which is the main cause of readmission, is affected by many issues. Some issues are related to the patient such as age of the patients (children and old age people are more likely to have uncontrolled blood sugar), patients are not following the dietitian instruction about diabetic diet, patient are not accepting and coping well with their illness, lack of knowledge about safe use of medication and self medication administration, patients do not understand their illness well due to low educational level, and lifestyle issues such as lack physical activity per day. Issues related to health care system including patients who do not receive proper treatment during hospitalization, patients did not receive proper health education during hospitalization (diet, safe use of medication, symptoms and the managements of hyper/hypo glycemia, discharge planning, and follow up), some medication is not available or not supplied on time to the patient, inappropriate follow up system (delayed appointment) provide upon discharge which can lead to deterioration in patient’s condition, and lack of community resources. Issues related to patient’s family are no family support, low family education level, no family acceptance,
and lack of money to pay for treatment and medications. This research is focus on health education issues which are providing by health care system, and how the health education effect in reducing the number of readmission among diabetes patients.

**Literature review**

Williams, Baker, Parker & Nurss (1998) in their article “Relationships of functional health literacy to patients’ knowledge of their chronic disease” claimed that patients with chronic disease need more health education to be more knowledgeable in order to achieve adequate control on the disease and prevent disease complications. This study was implemented with patients with chronic disease such as diabetes and hypertension. The aim of this quantitative and qualitative study was to examine the relationship between their functional health literacy level and their disease outcome. A survey, which was developed by the authors, was distributed and the interviews were conducted among patients with hypertension and diabetes in two urban public hospitals. There were 21 hypertension and 10 diabetes questions in the questionnaire to assess patient’s knowledge of their illness and treatment. Five hundred sixteen patients participated in this study, 402 were patients with hypertension, and 114 were patients with diabetes. In this study 45% of patients had inadequate functional health literacy that affected their knowledge, lifestyle modification, diet, weight, and self disease management. Patients with inadequate functional health literacy had higher blood pressure among patients with hypertension, and higher HbA1c among patients with diabetes. Also, diabetic patients had less knowledge about proper treatment or symptoms of hypoglycemia that can be life-threatening for the patients. Inadequate functional health literacy is considered a major educational barrier. Patients with chronic disease must know the basics of their disease and self management skills in order to control their disease. We must ensure that all patients receive proper health education with consideration of literacy learning styles. Teaching strategies such as reading, listening, or visual health information which is suitable and help patients to understandable their disease.
Rickheim, Weaver, Flader & Kendall (2002) stated in their article “Assessment of group versus individual diabetes education” that health education can be delivered to individual or groups of patients. The aim of this quantitative and qualitative study was to compare the diabetes health education effectiveness delivered to individual patients versus a group of patients. One hundred seventy patients with type 2 diabetes participated in this study, 87 of them were educated in group setting, and 83 patients as individuals. All the participants received a health education program over a 6 month period. A baseline of HbA1c was taken before the education program started. The program was focused on self management, basic knowledge and skills for type 2 diabetes, medication use, prevention or lessening of long-term complications, change in behaviors and improvement in quality of life style. The study showed great improvement for all the participants measured by the HbA1c levels, but the improvement in HbA1c level was slightly greater in patients in group setting. However the differences in HbA1c between the individual and group sitting showed slight improvement measured by 0.005 only. The authors concluded that the health education within the group setting was more efficient and a less costly method.

Wilson, Brown, Acton & Gilliland (2003) article “Effects of clinical nutrition education and educator discipline on glycemic control outcomes in the Indian health service”, the authors assessed the clinical nutrition education effectiveness in reducing HBA1c level, which reflects patient glycemia control. The aim of this quantitative study was to compare the effectiveness of the clinical nutrition education given by registered dietitians to that provided by non-registered dietitian. Seven thousand four hundred ninety medical records were reviewed in this study during 2001. To assess the glycemia control, two readings of HbA1c had to be documented in the patient record. The clinical nutrition education was also documented in the patient record. The differences between two HbA1c values were used to measure the effect of education by a dietitian versus an educator. The result of this study showed significant changes in HbA1c for those receiving clinical nutrition educations regardless of who was giving the education. When comparing registered dietitian and non-registered dietitian education, the registered dietitian education had the largest improvement.
on HbA1c levels. In conclusion, clinical nutrition education was associated with improvement of glycemic control. To improve clinical nutrition education, diabetes education should be provided by someone with educational training such as registered dietitian, diabetic educator, or by multidisciplinary team that includes registered dietitian. This would assist patients to achieve better glycemic control and minimize the risk for diabetic disease complication.

Kim, Ross, Melkus, Zhao & Boockvar (2010) stated in this article “Scheduled and unscheduled hospital readmissions among patients with diabetes” that 23.6 million individual in United States have diabetes, and require continuity of care. The aim of this quantitative study is to describe the rates of readmission either scheduled or unscheduled among patients with diabetes, and to examine the factor associated with readmissions. The author analyzed California State Inpatient Dataset in 2006. The AHRQ’s (Agency for Healthcare Research and Quality) Clinical Classifications Software was used to analyze the data. One hundred twenty four thousand nine hundred sixty seven patients were surveyed and the sample included patients over 50 years who were admitted and discharge from California hospital between April and September 2006, and had been readmitted. The result of this study showed 87.2% readmissions were unscheduled due to diabetes mellitus complication. About 26.3% of patients were readmitted within 3 months. The risk of unscheduled readmissions increased due to many factors such as patients with multi-chronic disease, patients above 80 years, patient with lower access to primary care services, patients with history of recreants’ readmission, and patients who transfer to another health services. The cost per day for 27,500 inpatients is almost $72.7 million. According to Prevention Quality Indicators for Health Research and Quality, one-fifth of unscheduled readmission can be prevented if good quality inpatient care, outpatient follow-up, and transition care had been provided to the patients.

Discussion

Based on observation health education is playing an important role in management of diabetes disease. It will help the patients achieve better glycemia control, better understanding of
their disease, and improve the patient’s quality of life. By achieving the glycemia control, which has positive effects on clinical outcomes and prevent disease complications, the hospital readmission among diabetes patients will be minimized. On the other hand, Kim et al (2010) based on evidence, concluded that one-fifth of unscheduled readmissions can be prevented if glycemia control is achieved by providing good quality of care. This paper will discuss three issues focused on diabetic education supported by evidence from the literature review. First, diabetes education has a positive effect on patients to meet the glycemia control and have better disease control regardless of who is providing the education, but the health education is better when it is given by someone with educational training. For example, in Qatar, in Hamad Medical Corporation, registered dietitian is the authorized person to provide the nutrition education. Wilson et al (2003) study, the clinical nutrition education was associated with improvement of glycemic control, but it showed more improvement on patients who had clinical nutrition education by registered dietitians. Second, prior to the health education patients should be assessed for readiness and any learning barriers. Health education should be flexible, age appropriate, simple, understandable, and relevant to the patient’s health care needs. Williams et al (1998) considered the functional health literacy level as a major barrier for the education, and in the study 45% of patients had inadequate functional health literacy that affected negatively to their knowledge, lifestyle modification, diet, weight, and self disease management. All patients with inadequate functional health literacy must receive proper health education method with consideration of learning styles. In Qatar, based on observation the health literacy is considered as a major barrier for the education due to culture and education level. Third, the experience has shown that group health education helps the patients to participate more in the health decisions, more physical activity, and achieve the glycemia control. For example, Qatar Diabetic Association Center has great experience and success in group education, but still their effort is very small compared to the diabetic population in Qatar. However, Rickheim et al (2002) showed more improvement in HbA1c level within patients in group setting versus individual setting, and the health education within the group setting was more efficient and a less costly method.
Conclusion

In conclusion, the numbers of readmissions among diabetes patients has been increasing due to poor management of the disease which leads to deterioration in patient’s condition. Readmissions cause increase in costs for medical services, heavier workload, and hospital bed crises. Diabetes health education is playing an important role in improving the disease management, patients will be more knowledgeable about their disease, and patients achieve self disease management. From the literature review, there are many ways to improve the quality of diabetes health education. First, diabetes health education should be provided by someone with educational training such as a diabetic educator, registered dietitian, or by a multidisciplinary team which includes the physicians, pharmacists, dietitians, and health educators. Second, health education should be flexible, age appropriate, simple, understandable, relevant to the patient’s health care needs, and any learning barrier must be considered. Third, group health education program is very successful for patients and health care systems to improve patient outcomes. Also, it is more efficient and a less costly method. All these solutions to improve the quality of diabetes health education would assist patients to achieve better glycemic control and minimize the risk for diabetic disease complication which will impact positively in reducing readmission among diabetes patients.

Recommendations

In Qatar it has been observed that diabetes population has increased, and readmissions issue have been noted within Hamad Medical Corporation. Many efforts are focused on improving the diabetic health education in order to reduce the readmission among diabetes patients. It is recommended for HMC that all patients with diabetes engage in special education group programs as this will promote group learning. This allows the patients: to participate more in health decisions, increase physical activity, become more knowledgeable, modify their lifestyle, achieve more glycemia control, and feel unity within group members. I would like to present and discuss my recommendation to Patient and Family Education Committee in HMC supported by evidence from
my paper and other research in order to promote the quality of care for diabetes patients and minimized readmission issue. It will be useful to use Qatar Diabetic Association Center experience to move on. The program must be comprehensive involving the physicians, pharmacists, dietitians, and health educators. Direct contacts with the patients must be provided which will help the patient for better communication and meet the diabetes management goals. The health education program must be provided with the HMC facility. When the patients are coming to their clinic, they are able attend the education program at same day. This solution has many barriers such as culture, religions, time and patient’s gender. These entire barriers can be eliminated with help of Patient and Family Education Committee.

Reference


OVER- CROWDING IN HEALTH CENTERS by Fahima Rehael Al- Shammari

Introduction:

No one can deny that there is a growing population in Qatar now a day, which leads too many patients in hospital and health centers. Many people regularly seek medical advice and treatment. The overload of patients may lead to stress for the staff, this stress may affect the quality of service and patient care. The over-crowded of patients in health centers is the reasons which leads to the problem that we mentioned before.

Issues:

There are five issues related to this problem, such as special clinics are not available in all health centers for example, ENT, cardiology and smoking clinics. There is not enough professional staff, equipment or the budget to buy specialized equipment. The staff may not be trained well or do not know how to use some equipment for these clinics. There is no appointment system and there is a lack of access to technology, no arranged time for each patient, no call system available in health centers and the staff do not know how to use the computer. There is inadequate numbers of staffing in an issue as including specialized nurses and doctors, low salaries for medical staff, and no budget to increase the medical staff. The design of health centers doesn’t include enough waiting areas for the patients so it is congested, and the buildings in some of the health centers are old and small (not enough room). The last issue is that there is no triage system including: no special rooms for triage. In this paper, I focus on no appointment system in health centers.

Literature Review:

Crankshaw et al (2010), wrote ”Exploring the patterns of use and the feasibility of using cellular phones for clinic appointment reminders and adherence messages in an antiretroviral treatment clinic, Durban, South Africa”. The main concept of this study to examine the pattern of the usage of new
technology like cellular phones related to patients appointments. This study describes a very important and modern way to remind the patient about their appointment. The authors use a qualitative study to identify those patients who would use cellular phones. The tool was a questionnaire in two languages, English and IsiZulu to make the questionnaire easily to understand. They chose 300 adults who were 18 years old and above who presented to the Anti Retroviral Therapy (ART) clinic for treatment. The study measured the availability and the use of cell phone and patients’ opinions related to accepting contact with the clinic via cellular phone or by text messages as a way to remind the patients of their appointments. Descriptive analysis of the interviews was done. The study compared males and females regarding their use of cellular phone. The results showed that more females than males turn off their phone during the day. Most of the participants via cellular phone (99%) preferred to be contacted directly to remind them or by text messages (96%). Crankshaw et al (2010).

The main concept of Bennett and Gilchrist (2010), study “Readability of standard appointment letters” is the importance of communication with patients via letters so that it is clear, understandable to all patients and their ability to read. This study related to letters appointment in health centers are the primary way to follow up with patients. The study is assessing the appropriate levels of the ability to read the text massages and written letters to inform them about their appointment. A questionnaire was given to the patients, and then descriptive analysis was done. The study tools were simple word processing, analysis of the standard letters, questionnaire and feedback, and compression of the available statistical data. The results showed that all letters improved on standard measures of readability and the patients prefer to be reminded about their appointment. (Bennett and Gilchrist, 2010).

Perron et al (2010), wrote “Reduction of missed appointment at an urban primary care clinic. A randomised controlled study”. The main concept of this study is to examine the effect of sequential intervention to remind the patients of their next appointments. The authors used a random control study in an urban primary care clinic at Geneva University Hospital. They reminded the patients of their appointment 48 hours before the appointment. The study determined the appropriate ways to reduce
the number of missed appointments. The study was conducted at the HIV clinic and the patients were informed about study while they were in waiting area or when they were making appointment. “The research assistant applied the following intervention: first a phone call according to the number written on the electronic appointment record; second, a SMS” (Perron et al., 2010, p.2). The study was conducted in many languages including English, Spanish and French, to make it understandable for all patients. The SMS were sent to the patients according to the language which contained the doctor name, the appointment day and the time. They used a satisfaction survey which was done with 241 patients. The results showed that 93% of the patients were not bothered by reminder and 78% felt was useful for them ((Perron et al., 2010).

Crankshow et al. (2010). Discussed the patterns of using cellular phones and messages to remind the patients of their appointment, and they compared between males and females in using the cellular phone use. Most participant prefer to be reminded about their appointment, (99% via phone call and 98% via text messages), this study can be used in Qatar to improve the quality of service and examine the use of new technology like cellular phones and messages, especially as Qatar becomes an developing country and the technology is important part of health care. The patients will be happy if the medical staff to remind them of their appointment and they will feel that medical services are always improved. This a very good solution to the problem as lack of an appointment system leads to over-crowding in health centers. However, Bennett and Gilchist. (2010), discussed the readability of appointment letters and how to make these letters simple & easy to read for all patients. As supported by the authors, “the use of simple readability measures proved feasible and helpful for reviewing the ability of letters” (Bennett and Gilchist, 2010, p. 104). This study is helpful in Qatar because it discussed the importance of communication with primary health centers and patients via letters which are clear and understandable for all patients. Some of people are educated and they are able to read letter. This letters should contain clear date, time, and physician name, without medical details to maintain confidentiality of the patients. If this solution applied it will help to reduce the over-crowding in health centers.
Perron et al, (2010), discussed reducing missed appointments by examining the effect of sequential intervention to remind patients of appointments, like phones and messages. The study showed 78% of patients considered the reminder useful for them. This study can be used in Qatar with patients who are followed up in primary health centers by increasing the awareness about missed appointment and explain to the patients the importance of attending their appointment regularly.

**Conclusion:**

Over-crowding in health centers is a very important problem which can affect the quality of care. There are many reasons for this problem such as, in adequate number of staff, no triage system, some specialized clinic are not available in health centers, and there is no appointment system. The issues which need to solve in the way of reducing the problems in appointment system for the patients who follow up in health centers. In this articles the authors trying to find good solutions to reduce this problem, such as sending a letters to the patients, via phone call, and send messages in way to remind them about their appointments. However, the three articles are equally important because they discussed an urgent issue by different ways, they show same purpose to remind them about their appointment. **Recommendation:**

Regarding to what we found in the three articles that all primary health centers in Qatar should assign staff or use a call center in the hospital and new technology like cellular phone and text massages to remind the patients one day before their appointment.

**References:**


adherence messages in an antiretroviral treatment clinic, Durban, South Africa. *AIDS Patient Care and STDs*, 24(11)729-734.
Decrease Number Of lower Limb Amputation in Diabetic Patients by Khadeja Baqer

Introduction

Qatar has a large number of diabetic patients. There are many complications associated with mismanagement of diabetes. Lower limb amputation is one of the very serious complications of diabetes, because of its effect on the patient’s health and life, his family and the cost to the community as well.

The issue arising

As the number of diabetic patients increases, there are many issues that arise; lifestyle is major one as it effects diabetes and blood sugar control, this includes lack of physical activity in community and Increase consumption of junk food. Another issue is lack of patients and family knowledge about diabetes and signs of diabetes complications this includes: Lack of knowledge on how to prevent future complications; especially foot care in diabetic patients to prevent lower limb amputation. In addition to that; factors related to patients includes: no self foot assessment done regularly, patients do not attend foot clinic for assessment and teaching, Patients come to foot clinic when already the foot damage is done and infection is spread.

Another important issue regarding foot complication in diabetes is the lack of medical staff knowledge including nurses; about diabetic foot assessment and care and Lack of number of medical staff specialized in diabetic foot care. This all leads to high number of diabetic patients with lower limb amputation.

Amputation has many effects on the community including: the effect on community financially; it affects the economic status of the patients and his family; the person with amputation becomes with special needs and a burden on the community.

As there is less number of medical staff specialized in foot care, the focus of this paper is about the nurses role to decrease number of diabetic foot amputation. So, nurses in all health care setting should carry on proper foot assessment and extensive education to the patient and the family to have a community with less diabetic lower limb
amputation.

**Literature Review**

Abbas and Archibald (2007) conducted a study: “Challenges for management of the diabetic foot in Africa: Doing more with less”. The main aim of the study was to help prevent complications of diabetic foot ulcer by education in Africa and less developed countries. The study focused on the increased numbers of diabetic patients in Africa, complication of the foot, peripheral neuropathy and vascular disease. The study also mentioned two serious outcomes of diabetic foot ulcer which are gangrene and infection that leads to disability and affects economic status and leads to amputation and death. With less health system resources in many African countries, diabetes is causing a heavy burden on the health system. Reasons for the complications of the feet caused by diabetes are: lack of knowledge regarding foot issues for both patients and the health care staff; few medical staff specialized in the foot care; the patients have to travel long distance to access foot care service; there is a delay for the patient in seeking medical service before complications arise and the patients are not referred by the untrained medical staff to the specialist when they have complication at the right time. In addition there is no presence of training programs for the health care staff.

A project called “Step by Step” was initiated. The project was a training and education program for medical staff about diabetic foot care and complications. Medical doctors and nurses participated in the training. During this training, screening was done for 11,583 patients, 37% were patients with known foot complications, 11% with foot ulcer, 9% of the patients had amputation and 4% died. Elements of the screening included the following: patients attending diabetic clinic; high
risk foot patients; foot ulcers; amputation and education sessions. The data collected of the “step by step” project was obtained one year after the first course of training and education of medical staff and then one year after the advanced course.

The author concluded that: it is possible to prevent diabetic foot complications in African countries through health care professional education and training programs and also by providing education to patients.

Fujiwara, et al (2011) completed a study: “Beneficial effects of foot care nursing for people with diabetes mellitus: An uncontrolled before and after intervention study”. The main aim of the study was to make an assessment on the effectiveness of a preventative nursing program of foot care for the diabetic patient; which was developed in the study based on the international working group on the diabetic foot.

This study mentioned issues regarding diabetic foot including foot complication in diabetic patients and prevention; foot care; foot ulceration caused by high risk factors; diabetic neuropathy; amputation of the lower limb; foot care that might prevent ulcer formation and better prognosis if ulcer is formed; and a foot care program structured and provided by nurses. They recommended preventive programs be designed to prevent ulcer formation in high risk patients.

The study is quantitative with 88 patients evaluated for risk of diabetic ulcers over 2 years. The patients were divided in groups according to risk classification and foot care was provided. The incidences of foot ulcer, recurrence of ulcer and non ulcerated foot conditions were evaluated. The
analysis was done using paired t-test and McNemor’s test (used for analysis) and the Wilcoxon’s signed rank sum test used to analyze the tinea pedis severity and callus grade.

The study results concluded that the program reduced the severity of the tinea pedes score and improved callus grade, so the study encourages nurses to design and provide a foot care program to prevent ulcer formation especially patients at high risk.

Smide, (2007) “Outcome of foot examinations in Tanzanian and Swedish diabetic patients, a comparative study. Aimed to compare the result of foot examination performed by clinical nurses for diabetic patients in Tanzania to matched patients from Sweden.

The study addressed many issues including the increased number of diabetic patients; diabetic problems in less developed counties; how patients care for their foot problems; developing teaching program; accessibility to insulin for patients in the developing country; importance of foot care and daily self inspection and foot care education to prevent complication.

The study used quantitative methods to compare diabetic patients in Tanzania and Sweden. From each country; the study examined 105 patients of the same age and gender. The patients gave a verbal response to questions about foot care and had foot examination done clinically focusing on presence of foot lesions. Use of “Semmes-Weinstein monofilament (5.07)” for test of sensitivity and also used a tuning fork (128 Hz) for testing the vibratory perception these tests help to detect extent of damage to the nerves.
The finding of the study is that patients in Tanzania need to have better foot care through teaching and that nurses should do foot examination in outpatient clinics. Nurses also have to make notes about foot care in the patient’s records to highlight problems in foot care. The study recommends having more education for all involved including patients and health providing staff in both countries Tanzania and Sweden.

Discussion

Diabetes is a rising issue because of the increase in number of diabetic lower limb amputation in Qatar; this complication affects the patient; his family and the community as well. Health care staff has an important role in the prevention of this complication by education; early detection and intervention. As there is fewer number of specialized health care staff specialized in the foot care; the nurses play a role in amputation prevention in all health care setting.

Prevention of diabetic foot complications is discussed in the literature. The study conducted by Abbas and Archibald (2007): “Challenges for management of the diabetic foot in Africa: doing more with less”, stated different reasons for diabetic foot complications including lack of knowledge of health care staff. The study concluded that it is possible to prevent foot complications through health care staff and patients’ education as well. The result of this study supports training health care staff including nurses regarding diabetic foot care needed in Qatar. One of the main causes of diabetic complication mentioned in this study is the lack of resources in many African countries. Patients need to travel long distance to have access to health care; which is not the issue here in Qatar as there are lots of resources available. However these resources need to be well directed
toward more effective ways for diabetic foot complication prevention programs. On the other hand
delay in seeking medical service before complications are common problems in Africa and Qatar
which is the.

mellitus: an uncontrolled before and after intervention study”. This study was more specific in
regards to the role nurse should play to prevent diabetic foot complications. They recommended
nurses design and provide programs for diabetic patients to prevent foot ulcer formation. This
recommendation would be very useful in Qatar and could be done after training given to all nurses
in different specialties. The training could be given by a specialized podiatrist, thereby giving nurses
a back ground of proper assessment, foot care and early complication detection.

A comparative study by Smide (2007) “Outcome of foot examinations in Tanzanian and
Swedish diabetic patients “found that even in a developed countries such as Sweden more
education was needed for both patients and health care staff regarding diabetic foot care. This
indicated the need to have similar study in Qatar to identify the specific educational and training
needs for health care staff including nurses to prevent diabetic foot complications. In addition the
study recommended nurses in outpatients department make notes about patient’s foot status to
highlight problems in foot care which can be done in Qatar outpatient hospitals after developing a
checklist for this purpose.

Conclusion
Diabetes is an increasing problem due to increase number of diabetic lower limb amputation. This complication affects the whole community including patients and their families. Qatar has a big increasing number of diabetic patients. So, one way to prevent limb loss in diabetes is prevention though education and follow up by health care professionals. Due to lack number of specialized staff in foot care, nurses can play an important role in diabetic foot prevention and early treatment in all health care settings which has been proved by many studies to have a positive effect on the diabetic foot health in many countries.

Based on the literature review and experience nurses can provide foot care and teaching to diabetic patients to help prevent lower limb loss.

**Recommendation:**

On short term nurses can undergo training courses and programs conducted by podiatrist; starting with nurses in the primary health care setting and outpatient department. A check list can be developed by nurses and used as a tool for diabetic foot assessment after approval of podiatrist in charge.

Long term goals include research to identify specific problems in foot care for diabetic patients in Qatar. Nurses can be trained then to meet these problems and needs. Nurses should have continuing education about diabetic foot care to be up to date. Also nurses can attend conferences and courses abroad to have more knowledge. In the future Qatar can train and certify nurses to be specialized in diabetic foot care and provide education for other nurses in all health care setting.
References


How To Help Disabled Children in Qatar by Ms. Rana Mohammed Diab

Disabled and handicapped are a term used to describe lifelong disabilities affecting children physically or mentally or both. The disabilities occur because of issues that happen before or after delivery, which affect daily functioning in the following areas. First, is the capacity for independent living in self care such as feeding, toileting and grooming. Second, is receptive and expressive language which leads to communication problems. In addition, learning problems and physical problems may be present. The disabled children are usually classified in the severity to three types: mild, moderate, and severe.

The number of disabled children in Qatar has been increasing, especially in recent years because of two main reasons. First, sometimes they are delaying delivery of the baby which leads to less oxygen delivered to the child that causes disabilities for him. Second, some families are very strict in getting married from same family which leads to have disabled children. We need to address the issue of how to help these children and enable them to work in the future and be an effective part of the community. There are three recurrent genetic diseases that are increasing in Qatar such as Down Syndrome, Autism, and Cerebral Palsy.

Cerebral Palsy (CP) is a group of disorders that can affect the brain and nervous system functions. It can affect physical function or mental or both. This result in movement difficult, learning problems, visual and hearing problem. This disorder will be discovered during infancy or childhood. CP is one of the most common disabilities in Qatar; there are multiple causes many of which can be prevented. First, CP is sometimes the result of marriage within the same family where one parent is carrying the disease, such as a genetic problem. In Qatar culture, when people get marriage within the same family, they are respecting the customs and traditions. In many cases the parents are not educated; mean that they cannot read or write. One of couples may be carrying a gene of the disease, such as gene of breast cancer, diabetes, and hypertension. Some coupes do not have blood
test before marriage. This test shows if the people have any genetic diseases; the government of Qatar has a new rule. If people want to get married, they must do this test, otherwise the court will not sign the marriage paper. Sometimes couples will travel outside of Qatar to get married, because they don’t like to follow the rules or they have a disease but they don’t want it to be documented in their medical files. In addition, some of them will do the marriage pre-test and they know whether the result is positive or negative. Sometimes, if the result is negative some people ignore it and get married anyway, but some of them do not. For who don’t do the test are putting themselves at risk of having a CP child. A second cause of CP is pregnancy among young females from 10 to 15 years old or among women in age 40 years and older. Sometimes these pregnancies result in three types of disabled children. First, Down Syndrome is a genetic condition in which the person has 47 chromosomes instead of the usual 46, or there is an extra copy of chromosome 21; this causes mental problems. Second, Autism is a developmental disorder that appears in the first years of the children’s life with unknown cause or genetic disease. This disorder needs early diagnosis and intervention to improve the children’s condition. Finally, CP may occur in the children of women of this age from a genetic disease or a group of problems during delivery.

Third, CP may also be caused by Problem during pregnancy. In some cases it is a result of women taking medication during pregnancy, such as antibiotics. Also infection may occur during pregnancy, such as rubella. In addition, problems in pregnancy can result from lack of prenatal care, or people just not going to hospital appointments. There are common four reasons for this. First, is long waiting times for appointments; second, the women has other children at home and has to take care of them; third, the pregnant women is not aware of the importance of follow up appointments, and finally, she may not have transport to go to the appointment.

Fourth reason for CP is problems during, before, or after delivery. These are divided into three categories. First, is premature birth. Second, is lack of oxygen delivered to the child in delivery. Sometimes this situation affects the child’s condition, causing mental and/or physical problems. Finally, a problem may happen after delivery. Sometimes in early childhood the child has a brain
infection or bleeding, a head injury from a fall, or severe jaundice. A fifth reason for CP is hospital error which can be divided to three parts: wrong diagnosis, where the diagnosis is documented in a medical file forever; wrong treatment which sometimes affects the child’s condition; late intervention which leads to disabilities because of lack of oxygen delivered to brain tissue which may results in the child or mother dying, or the child being delivered abnormal. A sixth reason for CP, is lack of community services for disabled children. First, Al-Shafalah Center has a shortage of staff, therefore, children are waiting at home with no community service. Second, the Special Education School also has a shortage of staff and a small building. Third, Many children sit at home because their parents are not educated and are very strict following their customs and traditions; in addition, some parents are ashamed of the child. Also there is a lack of schools that will accept the child especially if the child is severely disabled and private centers are very expensive. A final cause is lack of awareness in the community. Some parents are not educated, they do not read or write, they think in a very traditional ways about rules of marriage. Some people do not follow the rules of the community. For example, some famous groups of people get married within the same family, otherwise the family will not be happy about this marriage. They know that this marriage custom dangerous but they do not think of the results. Some parents do not follow government policy, and ignore the pre-marriage test rule.

**Literature Review**

Dogan, Yildirim, Karabay, Dost, and Ozgirgin (2011), authors of “Developmental age and motor function levels in children with cerebral palsy” define cerebral palsy (CP) as a group of disorders that causes disability in the childhood period. The authors mention the importance of early diagnosis and treatment as a delay that will affect the child’s condition physically and/or mentally. A study conducted by the authors showed 25% to 30% of CP children have visual problems and learning disabilities and 50% mental retardation. Before planning any rehabilitation program, health care professionals should identify the child’s complication and determine which of the programs fits for him/her. The authors focus on knowing the effect of developmental level on motor function
improvement. They choose 107 children with CP, and included them in the rehabilitation program. This study discussed the difference between developmental age and calendar age. The physical problems in people with CP are usually accompanied by sensory, cognitive, behavioral and communication problems. It is a qualitative study conducted in Turkey, and uses Denver II for statistical analysis. This test was used for identification of developmental problems with CP children, and it evaluated four developmental problems: personal-social; gross-motor; fine-motor; and language. The results showed differences between CP and non–CP children in calendar ages and developmental level, differences between level of gross-motor and fine-motor skills, but no difference between personal social levels. The results showed that developmental ages of the subjects were much lower than their calendar ages (Dogan, et.al, 2011). They classified the children according to developmental levels of mild, moderate, and severe. The Denver II test showed that the treatment response on personal-social developmental retardation in the mild group was high, and gross-motor developmental level was affected by motor improvement. Language, fine-motor developmental level, and functional improved. In addition, the Denver II test can be used with CP children before admission to rehabilitation programs. Further, this test did not show an effect on functional skills gains for fine-motor developmental level and language, but good personal-social and gross-motor function developmental levels exhibited relatively better motor function gains at the time of discharge (Dogan, et.al, 2011).

Bhatia and Joseph, (2011), “Rehabilitation of cerebral palsy in developing country: the need for comprehensive assessment” covered the essential aspects of the condition for health professionals as they deal with cerebral palsy patients and their families. The authors defined Cerebral Palsy (CP) as a condition that is difficult to deal with in developing countries and emphasized identification of the health problem to prevent and treat the aspects of the disease with less attention for rehabilitation. The authors described a study of 100 children with CP from rural India who were attending CP clinic to determine the frequency of associated handicaps, and to evaluate whether appropriate intervention had been instituted for these handicaps (Bhatia & Joseph, 2001). The
children are attending the clinic to receive services such as speech therapy, audiology, ophthalmology, physiotherapy, psychology, neurology, and orthopedic assessment. A history was taken from parents of the child or mentioned by the physician to identify which disability the child has to initiate early intervention. The first topic presented by the authors is introduction of rehabilitation in developing countries which showed lack of the resources and inappropriate distribution of health professional staff between rural and urban area in India. The number of children with CP that is screened and treated has more than doubled over ten years. Their parents rarely complain of speech and hearing problem when they follow up in the clinic. The authors are aware when they determine the frequency of associated disability among group of CP children, evaluate the parent’s information about disabled children, and identify the disabled children that already diagnosed or treated before the intervention. The sample for the study was for a group consisting of 100 children with CP treated in the last three years. It is quantitative and qualitative study, using observation and asking specific questions of the parents during the interview. In addition, they discussed seven types of evaluation since admission to clinic, which included the following: speech and hearing evaluation, intelligence quotient (IQ) testing and psychological evaluation, ophthalmologic evaluation, neurological evaluation, pediatric evaluation, physiotherapy and occupational therapy evaluation, and orthopedic evaluation. The results of the study showed the ratio between male to female was 1:6. Most of the children had a spastic diplegia type of CP with different disabilities, 54 children had visual problems, 40 children had mental retardation, 36 children had speech defects, and 27 children had seizures. Speech delay and expression are the most common type of speech problem. Parents identified associated problems such as speech problem, epilepsy, and abnormal head size when present. According to the results, the authors emphasized the need comprehensive evaluation for CP children to plan proper treatment and rehabilitation. Finally, the authors in this study were trying to increase the resources, proper distribution of health care professional staff to the primary health care, and increase the awareness of the public in the rural area.
The purpose of Capjon and Bjork’s, (2010), study, “Rehabilitation after multilevel surgery in ambulant spastic children with cerebral palsy: Children and parent experiences” was to identify the factors that affect families with CP children post-operatively, and their cooperation with rehabilitation after multilevel surgery. In the introduction, the authors discussed the experience of children with CP and their families after surgery, and the effect of comprehensive intervention and high quality rehabilitation. They stated that rehabilitation shouldn’t isolate the child from his/her normal living activities. The background discussed that international studies have shown the ultimate positive effect of multiple surgeries. Participation in rehabilitation was discussed including how to educate the parents to deal with a child with chronic disabilities by using of high quality information, training, and examples of other families who have the same experience. The study included eight CP children with different severities with their parents. The qualitative study was conducted in Norway, using semi-structured interviews carried out separately with children and parents (Capjon and Bjork, 2010). The results of the study showed low degree of pain experienced post-operative surgery in CP children, satisfied from improvement in muscles strength and physical mobility leading to increased social interaction. A few parents complained of severe pain and moderate improvement in physical mobility. Most of the families lacked information and communication about different rehabilitation level. The authors considered that rehabilitation was difficult because of intensive training programmes. Most of the schools were accepting the children with post-operative needs, but some examples of serious neglect and bullying occurred (Capjon & Bjork, 2010).

Erkin, Delialioglu, Ozel, Culha, and Sirzai, (2008), “Risk factors and clinical profiles in Turkish children with cerebral palsy: analysis of 625 cases” defined CP as a group of disorders of the development of movement and posture, causing limitations in activity that are attributed to non progressive disturbances that occurred in the developing fetal or infant brain. The purpose of the study was to identify the risk factors, signs and symptoms, motor function level for Turkish children with CP. The study was done with 625 children who were receiving treatment and rehabilitation for
4 years. The quantitative study was conducted in physical medicine and rehabilitation education and research hospital. The authors considered the risk factors like marriage within the same family, multiple pregnancies, neonatal convulsions, infection of the mother during pregnancy, infection for the child after delivery for example meningitis, and the baby have a histories of falls. This study was conducted in Turkey using data obtained from medical files and interviews with the family of the child. The results of the study showed that (47.8%) spastic diaplegia CP, (27.7%), (12.8%) spastic hemiplegic CP, and (11.7%) were other types like ataxic, dyskinetic and mixed CP types. The result also showed that causes of CP were found as follows low birth weight (45.1%), premature birth (40.5%), and married from same family (23.8%) (Erkin, et al, 2008).

In Parkes, Cullough, & Madden, (2010), study, “To what extent do children with cerebral palsy participate in everyday life situation”, one hundred and two children with CP included in the study. It described the level of participation of the CP child with activities of daily living, identified the relationship between a numbers of independent variables, described the relationship between gross motor abilities and non discretionary participation, and compared the frequency of discretionary participation by the children with CP. This study was conducted in Northern Ireland, using qualitative method of study and a standard questionnaire. The questionnaire included life habits and frequency of participation. The results of the study showed the numbers of CP boys were more than girls with ratio of boys to every girl (1:3), and 40% of the children had difficult social life that causes physical impairment, for example the family is very poor, or the child ignored from his/her family because of ashamed to have disabled child. Most of the children with CP had an IQ of less than 70. (Parkes, Cullough, and Madden, 2010).

Discussion

Dogan and his colleagues discussed the difference between developmental ages, calendar age and the effect of motor function level in CP children. They found that the language developmental level and fine-motor developmental level had no effect on motor function. However, they found
significant difference between levels of motor activity in admission and discharge. The study showed
25% to 30% children were diagnosed with learning disabilities, and 50% with mental retardation in
CP children. This study can be used with CP children in Qatar, by using Denver II test to evaluate
these children before admitting to a rehabilitation program and they have to improve this test by
adding more questions that can be used in the future with all classifications of disabilities. Bhatia &
Joseph, (2011), discussed the difference services for disabled children between rural & urban area in
India to evaluate medical facilities and distribution of health care professionals. The percentage was
eighty two percent of the children have disabilities than physical mobility problems. This study can
be used in Qatar, to improve the health care resources in the far areas that need rehabilitation
centers by opening rehabilitation centers in Al- Khour hospital and Al- Wakra hospital to help these
children to take all the facilities according to their needs. Also, the government should send enough
and qualified staff to cover their. These things are giving high quality of care for these children, and
help to improve their condition. Capjon & Bjork, (2010), discussed the situation of the family after
surgery in ambulant spastic CP children. They discuss the experience that the child and parents will
have after surgery like how to deal with pain, management of the problems, and rehabilitation
programmes. This study shows low degree of pain after surgery, increase in social interaction. This
study is fit to use in Qatar, because many children who did surgery to correct their mobility that can
help them to walk after intensive programmes of rehabilitation. Erkin, et al, (2008), discussed the
risk factors that causing CP children in Turkey through analyzing 625 different cases. They discover
the most important factors that cause CP were low birth weight (45.1%), premature children (40.5%),
and married from same family (23.8%).This study can be used in Qatar by recruitment of
qualified staff to help in improvement condition of premature children and low birth weight through
giving them an intensive care. Also, the government should educate the parents who are very strict
to follow the customs and traditions to know that married from same family is putting the children
at risk and affect their future. The education should be through awareness campaigns in the primary
other normal children in activity of daily living. The results of the study were showed the number of CP boys more than girls with ratio of 1.3 boys to every girl, and shows 40% of the children had difficult social life that causes physical impairment for them. This study is very important to be used with CP children in Qatar, because this study shows how to give these children the chance to improve themselves in daily activity by teaching them how to participate in these activities to be independent in the future, to work in the community and be an effective part of the community. Finally, this study is very important and can be used with CP children in Qatar, because the number of CP children has increased in the recent years

**Conclusion**

Disabled or handicapped are terms used to describe lifelong disabilities affecting the children physically, mentally or both. The disabilities occur because of issues that happened before or after delivery, which affect their daily functioning. The number of disabled children in Qatar has been increasing especially in the recent years. We need to address the issues that explain how to help these children to deal like other normal children, and enable these children to work in the future to be an effective part of the community. There are seven issues causing cerebral palsy including marriage within the same family carrying genetic disease, early married in age from 10 to 15 years and old age pregnancy the age above 40 years, problem during pregnancy, problem during delivery, hospital error such as diagnosis, treatment, late intervention, lack of community services for disabled children like rehabilitation center, and lack of awareness in the community. The literature review revealed importance of early diagnosis and treatment as delays will affect the child’s condition physically and/or mentally. The authors mentioned the difference between rural & urban area to evaluate and trying to improve medical facilities and distribution of health care professionals. In addition, the study was to identify the factors that affect the family with CP children after surgery, how they are cooperative with medical staff in rehabilitation of the child and advice to include the family in the rehabilitation programmes to have a high quality of information. Further,
the study was to identify the risk factors, signs and symptoms, motor function level for Turkish children with CP. They explain the important factors that cases to CP children that can prevented or decreased some of them like not married from same family. Finally, the study showed the level of participation of the CP child with activities of daily living, identify the relationship between a numbers of independent variables, to describe the relationship between gross motor abilities and non discretionary participation, and to compare the frequency of discretionary participation by the children with CP. Children with CP should be trained to participate in everyday life situation such as, school, personal care, communicate with each other.

**Recommendations**

The short term goals are to provide health education for the public about disabled children, how to accept them in the family, and help them to behave like other normal children. The long term goals are to make these children to behave like other normal persons in school, university, and work to be an effective part of the community in the future. All issues & solutions are equally important to know and to prevent the increase in disabled children in the community. On the hand, we can put these issues according to the priority. The best solutions are to start with the parents by increasing their awareness about delaying married of their sons and daughters in early age like 10-15 years, and trying to change their culture about forcing their daughters or sons to get married from their cousins or from same family by explain for them about genetic diseases. The education of parent can be given during the pre-test married in primary health center. The Ministry of Health should increase the awareness of people through awareness campaigns in primary health center, TV, radio, and newspaper to help them to be more educated about the risk to get married early and from same family. The education should be through qualified medical staff like genetic physician, and nurse. They have to explain in details about the consequences of this type of married and the diseases that their children will have in the future. They have to know that the government will not put rules for married are not benefits for them. The government wants to have a healthy community far from
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genetic diseases. These solutions can be used in Qatar, because now the government put rules in the court that refuse to sign married contact until the couples will reach puberty, and to do pre-test married with being aware of the results positive or negative.

References


Decreasing the wait time in outpatient department to prevent patients suffering by Muntaha Elayyan

Introduction

Patient satisfaction is the major indicator of quality of care provided by a health facility. This includes respect patient for understanding their needs and providing services accordingly. Increased waiting time for patients in the clinic has long been a recognized problem in modern outpatient delivery system. Increased patient waiting time leads to many problems. Although most of the problems are minor, some of these can be serious and can ignite a series of unfavorable reactions. It is known that no one is happy to wait for a long time in any place, and this can be exhausting to patients who are sick and more vulnerable. This can easily cause anger and probably may explode at anytime. When patients are angry, they may just leave the clinic or not show up for their next appointment, fight with the staff or they may even fight with their own doctor. All these issues may deprive patients of proper management and can cause financial and administrative problems for the clinic.

The issues arising

There are many issues arising from this problem. A negative reputation for the hospital may result when patients get angry. They will usually exaggerate minor problems and try to avoid mentioning good aspects of the hospital. As a result, the hospital reputation will be affected. Therefore, the number of patients coming to the hospital will be reduced. The other important point is that, the relationship between some patients and their doctors will be affected, as patients will be dissatisfied and angry when they are exhausted from the long waiting time. This anger can seriously affect the important trust, which is required between the patients and their doctors. This can easily affect patient’s management and their wellbeing and again affect hospital reputation. Another important issue that can occur is fighting between patients and staff. Patients waiting for a long time may lose their temper and become aggressive verbally and have arguments with staff. These arguments may irritate the staff to the extent that even fights may occur. This can affect staff concentration and
their work. Sometimes committees are established to investigate these fights. Staff might be punished, suspended or even terminated. Another issue is clinic may not finish on time and staff will have to work overtime. This causes staff stress, fatigue, exhaustion and anger, which may result in patients not receiving proper care and full respect. No shows is one of the most common issues, as patients delay in the clinic makes them believe that they may have another delay in the clinic during their next appointment, so they will not attend. This will waste hospital resources, deprive patients of required care and treatment, such as prescriptions and lack of follow up. The patient’s condition may deteriorate. Thus, the hospital reputation will be affected. When patients are spending a longer time than expected by their supervisors, this may lead to work problems. They will even have more problems to the extent that they might be suspended from work and this will make social problems for them. To avoid this, patients may not attend the next appointment and this will prohibit them from continuing their treatment and cause deterioration of their condition. Dealing with deteriorated patients increases the burden on hospital staff and resources. To minimize the number of no shows, hospitals put expensive systems to remind patients about their appointments. These include phone calls, emails, SMS messages and letters by post.

**Literature review**

Neal, Gambles, Allagar, Lawlor, and Dempsey (2005) reported in the article “Reasons for and consequences of missed appointments in general practice in the UK: questionnaire survey and prospective review of medical records”. The main concept of the article was to explore why patients miss their appointments in a general practice clinic.

According to the article, over 40% of patients who missed their appointments said that they forgot their appointments, 25% said that the time wasn’t convenient for them and 20% said that they were too sick to attend. More than 90% of patients who missed appointments booked a new appointment within three months. Thirty percent of patients who didn’t show up in the clinic said that they tried but failed to cancel the appointments, but these cancellations didn’t show in their
medical records. Staff blamed patients for no shows and never accepted any responsibility from their side. It was found that men missed their appointments more than women and the older the patients the less likely they would miss their appointments. Missing appointments was more frequent when patients had missed appointments in the past. These differences have no statistical significance.

This qualitative study was done in seven general practice clinics over three weeks. It included all adult patients who missed their appointments and the next adults who showed up in the clinic for comparison. A structured non-disguised questionnaire with open and closed questions about the missed appointments was sent within 24 hours of the appointment. The first part of the questionnaire focused on patients’ views about how to keep appointments. The second part asked the reasons for the appointment and missing it. The authors excluded patients with mental problem, distress or terminal illness. Consent was made for revision of medical records. Out of 386 patients, 122 patients sent back useful answers. The authors concluded that patients justified not showing for appointment mainly because they forgot about it, and many asked for a new appointment within the next three months. They recommended more research be done on patients who missed their appointments.

Lacy, Poulman, Reuter & Lovejoy (2004) reported the findings of their study in the article; “Why we don’t come: Patients perceptions on no-shows”. The main concept of the article was to find details about why patients do not come to their appointments in an urban family practice.

The study resulted in 3 main interconnected themes for missing appointments without cancelation.

- The first theme was emotions as 65% mentioned emotional barriers as the reason for not attending the clinic, which outweighed the benefits of seeing the doctor. These barriers included worry about an examination, blood draws, and self-resolving symptoms or fear from bad news.
• The second theme was perceived disrespect as 44% were worried about lack of respect by health personnel. This included waiting for a long time, and some patients thought health care people would not respect their history. Disrespect is one of the reasons why patients do not cancel their appointments, and why they do not respect the system.

• The third theme was lack of understanding the scheduling system as some patients did not know that they would cause financial impact if they do not come. They believed no show would comfort everyone in the clinic, simply because they will reduce the crowd. They assumed that cancelling an appointment is a regular issue in the clinic and causes no problems.

The study was a qualitative design with survey participants chosen from an urban family practice clinic. Patients were low income and ethnically diverse. Semi structured interviews with 34 adult patients were conducted in the clinic for 12 to 15 minutes each. An interactive interview and analysis process was used. The interviewers did retrospective data base reviews to determine participant’s appointment keeping. Data analysis was done with immersion crystallization organizing style individually and with a team consisting of a family physician, a nurse practitioner, a medical sociologist and a medical student. The author reviewed patients’ files, and found an average of 4 missed appointments. The results suggest that missing an appointment is usually for many reasons. The authors recommended to increase patients’ respect by reducing waiting time between symptoms and appointment, decrease waiting time in the clinic, explain to patients why they have to wait for a long time, and to inquire about patient fears and try to reduce them.

Downer, Meara, Costa & Sethuraman, (2006) reported in the article “SMS text messaging improves outpatient attendance.” about the financial and operational effect of text phone reminders on patients’ attendance in the clinic. According to the article, 9.8% of patients who were sent SMS missed their appointments, while the control group showed 19.5% no shows. There was no significant difference in age and sex between trial and control groups. Failure to
attend a new or review appointments was significantly lower in the trial group. SMS significantly reduced the costs due to failure to attend clinic. The cost of sending messages was negligible if compared with savings due to increased patients’ attendance. Many unexpected issues came out of this study, for example, 0.4% of patients had the incorrect phone number, 24.9% of patients had more than one phone number, and a small number of patients replied by SMS for different reasons. Authors recommended that sending SMS to all available phone numbers for a single patient and replying to SMS sent by some patients would farther reduce the number of no shows.

This was a quantitative cohort study with historical control completed in Royal Children’s Hospital in Melbourne, Australia. Patients provided their mobile telephone number as a contact source during registration. The study included 22658 patients and 20448 controls who were also patients who had appointments, but were not SMS reminded of their appointments. Two sample proportion tests were performed using Stata 8.2 for Windows statistical analysis software. The message information was taken from clinic scheduling and loaded onto a data base.

Roberts, Callananand and Tubirdy (2011) reported in the article “Failure to attend outpatient clinics: Is it in our DNA”. The main concept was to find out why patients miss their clinic appointments and to establish a reminder system and penalty fees in accordance to patient recommendations of how to reduce no shows in clinics.

According to the article, about 10% of those who were surveyed said that they missed an outpatient appointment and 28% forgot their appointments. A few were too ill or felt better so they did not come to the appointment. Fifty five percent liked the idea of sending a telephone text message reminder, while 19% preferred a telephone call reminder and a similar number preferred an email. There was unanimous agreement that 20 Euros refundable fee on attending the clinic was acceptable. About 10% of patients thought that the reasons for not attending were due to clerical
mistakes. These were either because they were not sent a reminder or they were not successful in calling the clinic to cancel their appointments. The authors concluded that simple interventions as found by the study is cost effective to reduce no shows. Patients’ education is found to be important, particularly informing patients how costly when they do not attend their appointment. A refundable fee was well accepted by many patients.

This is a qualitative structured non-disguised questionnaire based study. The questionnaire was put in a single paper that took a few minutes to fill. It involved 240 consecutive patients in different neurology clinics over 3 months. Patients were asked their advice of how to reduce the number of no shows in clinics.

Discussion

Many studies were done on no shows, and the main concept of these studies was to find out why patients do not come to their appointments (Lacy et al, 2004; Neal et al, 2005; Roberts et al, 2011) and what is the solution for this problem (Downer et al, 2006; Roberts et al, 2011). Patients miss their appointment for many reasons, and it was found that the most common reason why patients do not come to the clinic was because they forgot about it (Neal et al, 2005; Downer et al, 2006; Roberts et al, 2011), and according to the reviewed papers, this ranges from 28% (Roberts et al, 2011) to 40% (Neal et al, 2005). Sixty five percent of patients mentioned emotional barriers for not attending the clinic, 44% did not attend because of perceived disrespect, and some patients did not know that no show could cause problems in the clinic (Lacy et al, 2004). Emotional barriers, perceived disrespect and lack of understanding the system were reasons why patients don not cancel their appointments (Lacy et al, 2004). A number of patients tried to cancel their appointments, but failed to do so (Neal et al, 2005; Roberts et al, 2011). Up to 25% of patients did not show because the time was not convenient for them, twenty two percent were too sick to attend. To reduce the number of no shows it was found that a reminder is useful (Neal et al, 2005;
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Roberts et al, 2011), and patients’ education (Lacy et al, 2004; Roberts et al, 2011), and respect (Lacy et al, 2004) were found to be useful as well. Clerks’ training was found to be important for a better communication with patients (Lacy et al, 2004; Neal et al; 2005; Roberts et al, 2011). A phone text message reminder was found to be very effective in reducing the number of no shows for about 10% (Downer et al, 2006). A symbolic refundable fee was acceptable by so many patients who were surveyed (Roberts et al, 2011). More research was recommended to be done on patients who missed their appointments (Neal et al; 2005). Downers’ paper has the best support to the issues of forgetting the appointment as the commonest cause of no shows. It also proves that sending a phone text message reminder would reduce no shows by 10%. Qatar clinics are also suffering from no shows, and there should be no problem in applying these solutions in Qatar.

Conclusion

Based on the literature review, it is reasonable to conclude that the problem of no shows in the clinic is common and usually occurs due to simple, avoidable reasons like not remembering it, emotions, deficiency of communication, clerical mistakes, and lack of patients’ education. There is strong evidence that a simple reminder like phone text message, increasing patient respect, clerical training, and a refundable fee are cost effective and have a good outcome in reducing the number of no shows. Because the problems of no shows are common, research should be done to determine why patients do not attend the clinic, and find more solutions for this dilemma.

Recommendation

Based on the observation in Hamad Medical Corporation, it was noticed that no shows are as common as it was found in the literature. No systematic effort was done to tackle the problem. Text messages were used in some clinics in the Women’s Hospital and that reduced the problem to some extent, but other reasons for no shows, like perceived disrespect and explaining how the system in the clinic runs were not addressed. Many patients who attend other clinics are poor
expatriate laborers, who may not have a mobile phone or a transport or even the cost of management. For Qatar, it will be useful to use SMS reminders and email messages, staff training and observation, ensure that there is medical insurance for expatriates, obtain laborers supervisors’ phone numbers, and patient education about the importance of attending the clinic for their own benefit and for the hospital benefit. A refundable fee can be applied if the previous recommendations fail to minimize the number of no shows. Research should be done in Qatar to discover other related issues in the health system. An example is why patients come to clinics late and why they come without an appointment. The diversity of the population in Qatar necessitates that these studies include different communities.

References


Poor Communication by Khadeja Eraibi

Introduction

This paper talking about poor communication describing how it does affect the relation between medical staff and the patient as well as patient care.

This article discusses poor communication and potential several causes for it and solutions to minimize issues related to the health care in order to improve patient care (Burley, 2011).

Issue

One of the Basic things in patient care is communication because without communication Health care team will not be able to know what is the exact problem to treat and there will be Misunderstandings between nurses and patient, that will affect patient care as well as patient health, Since Qatar is a multi nationality country that is hiring nurses from different countries this will be a huge issue to adress (Burley, 2011) (Fairbanks, 2007)

Poor communication is a result of several reasons for example shortage of staff that increase load of work over health care staff by having patient more than they should have or to deal with.

Another reason for poor communication is the overload of work which minimize the time that the nurse spend with each patient, this will affect the health of patient because as much as nurse stay with patient as much both will be able to perform a good communication and perform a good patient care as well (Burley, 2011) (Fairbanks, 2007) (hisolm, 2001)

Since we are living in multi culture country different languages will be another barrier for good communication because when there will be tow persons with different language, this mean that there will be misunderstanding and poor communication since both has no common language to communicate with and this really big issue because without common language there will be no communication, proper care and treatment.

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First thing that might effect communication is the language barrier where two persons cant speak common language, This could cause misunderstandings between the nurses and the patient, this misunderstanding will make a huge gap between the nurse and the patient witch lead to make a in the nursing care for the patient and quality of care since both of them can’t talk or communicate with each other this create a serious problem that an immediate reaction should be taken.

also shortage of staff related to lack of hospital resources or sudden increase in the
population that hospital are not prepared very well for it, this shortage of staff end up with
exhausting the health care staff and effecting their quality of work since they are dealing with
more patients than they should deal with, this will have an effect on the quality of nursing care
and patient health also.
overload of work is another cause for poor communication, this problem will distract and will
not allow them to concentrate the nurses due to multi tasks that they have to do and will
minimize the time that the nurse spend with each patient, All these issues and themes are
effecting communication as well as patient care so an immediate solution should be found
and
more research should be done.
One of the issues that is related to poor communication is the destruction that
nurses and doctors have during their work which affects the quality of their communication and
patient care, A study was done over 22 emergency doctors and nurses from the emergency showed that they are getting interrupted 10 times per hour comparing to health centers
doctors and nurses who are getting interrupted four times per hour, (hisolm, 2001) the person
who made this study is seeing that emergency doctors are at risk for harm because they are
working in an open area so providing quite close areas will minimize the interruption as much as
primary health care staff (Burley, 2011).

another quantitative study done by (Fairbanks, 2007) containing 20 members from
emergency department showed that the senior nurses and doctors are getting
interrupted more because most of them working as an in charges and that affect the
communication (Burley, 2011) done by (Fairbanks, 2007), this study showed that senior nurses are having less communication than junior because they might not be in an immediate contact with the patient.
also Student find it very difficult to communicate with the patient when there is no common language, this language barrier caused a problem to the nurses and the patient where wrong or limited information can be delivered to the patient or to the nurse, in some other situation when there is a weak language connection and after clear explanation were provided to the patient and in the middle of performing the procedure the patient will be under stress and will start crying and asking question that showed that they didn’t understand the explanation and that showing a huge gap in communication sometimes the vary of mental understanding where the nurse claimed that the question is very clear. (Emami A, Gerrish K; Jirwe M; 2010).

Some patient will be in a very depressed situation related to their health condition which might be untreatable sometimes, This will put the patient in a bad situation psychologically, Also they will be socially ineffective and they will isolate themselves so the nurses or medical team should communicate with the patient to improve their physiological situation, unfortunately this Communication can’t be perform effectively and sometimes it will be poor because shortage of staff and lack of communication, although the nurses can’t solve all their patient problem regarding to previous causes but they can work to minimize it and reduce it by working together and working with the patient. (McCabe C; 2011)

Discussion

the main problem on this topic is the language barrier as have been discussed before, although most of the treatment depend on clinical assessment there is huge part of it depend on the main complain of the patient and that require a good communication with the patient or at least a common language between both nurses and patients, some patient will come to the country as a labour where their work depends on their physical effort so they don’t have to communicate with others or to speak another language rather than their mother language so those labours when they face a health problem it will be very difficult to communicate with them, This gave the nurses and
health care system a huge challenge because they have to find a proper way to communicate with their patient and that will be through a creditable interpreter through embassy or through language bank of the hospital or any volunteer who can speak the same language of the patient, these language resources should be available 24 hours at the hospital because any time any of these patient might come and they might face this situation also hiring nurses from different countries might help on solving the problem and minimize it. (McCabe C; 2011)

shortage of staff is another problem that cause a poor communication because staff will spend short time with the patients regarding to the amount of patient that they have to deal with especially if there is increasing on population that hospital resources are not ready for it, this will effect quality of nursing care since they will not be able to give each patient enough time to communicate and allow them to express themselves in a proper way and that will lead to misunderstanding and lack of information that health care system need it to apply a qualified good care for the patient. (Burley, 2011) (Fairbanks, 2007) (hisolm, 2001)

as mentioned before shortage of staff are one of the problem that are facing the health care staff this problem will result on overload load of work, this will be very stressful for the staff and will distract them as they have multi tasks to do in one time also the interruption that they are having from others while they are working especially if they are working in open area like emergency department all this interruption and destruction will increase the stress and load of work as we mentioned before so patient care will be effected as well as staff mentality and quality of work so an immediate action should be done to decrease the load of work and stress that will be by hiring more staff or by delegating the work between staff in a proper way. (Burley, 2011) (Fairbanks, 2007) (hisolm, 2001)

**Conclusion**

all these problem and more need an immediate action in order to minimize the problem and to find solution for it this will be by dealing with each problem alone doing more
researches, using more staff.
as result for all of that and after reaction taken it is not necessary to have a perfect
solution or an immediate solution because the goal of this is to minimize the problem.
overload of work, shortage of staff, destruction of health care team and different
languages all these are issues that effecting the communication among the health care
system, dealing with all these problem should be by handling one by one looking for
the best solution for each in order to find the best outcome.
as mentioned before communication is a very important because without a good
communication between the care team and patient they might be misunderstandings in
diagnosis and patient treatment as well and this affect patient life and health.

Recommendation:
On the short term goal nurses should be aware about the importance of
communication on their work and their patient care by providing a professional courses
and work shops on communication and patient health care, this courses should be
available for all health care team to have better outcome.
Define the problem exactly doing more research on the issue trying to find solution for
it and see how it is effect Qatar and what the best solution for the country for concern
and since shortage of staff is one the main problem that are facing the Qatar health
care system hiring more staff will be very useful to minimize the problem, Finally
Offering translator and creditable interpreter 24 hours will insure a good communication
with poor language patient.

As Qatar is a multi nationality and culture nationality researches like strongly
recommended as it will be very useful as Qatar is facing almost most of the
problems that mentioned in all above researches.

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Lack of Health Education for Diabetes Patients by Noura Farraj

Introduction

The complications of diabetes are a term used to describe the side effects of diabetes mellitus. Diabetes results from a metabolic disorder characterized by chronic hyperglycemia with disturbances of carbohydrate, fat and protein metabolism resulting from lack of insulin in the body. Diabetes is a chronic disease which has many complications that can damage all body organs in the long term such as foot ulcer. This study is important because it helps the nurse to manage and control this disease and complications in a healthy way. The goal of this article is to know the reasons of lack of health education for diabetes patients. Also, this article helps to reduce the complications in patients by early diagnosis, health education and good treatment. In addition, this article helps to decrease the number of diabetes patients in Qatar by increase the awareness of risk factors and engaging individuals early, which can reduce the overall number of individual with diabetes mellitus.

There are several issues causing increased complications with diabetic patients. The first issue is genetic factors, and the related elements are family history of diabetes disease, getting married to same one from same family and lack of parents’ education about heredity problem. The second issue is lack of community service. The related elements to this issue are lack of nurses specialized in diabetes who are “diabetic educators”, lack of staff to provide home visits for diabetes patients, parents refusing the nurse go for home visits because of their culture and only one university specialized in nursing in Qatar is Calgary University. Lack of education is another issue and it has many elements like older generation can’t read or write so they don’t have any information about this disease and complication, lack of health education for diabetes patients,

No time for nurses because of work overload, shortage of staff, staff doesn’t have enough information about diabetes disease, and nurses are studying nursing in general, which does not
include studying something especially for diabetes, and the last is Ministry of Health does not provide education programs for nurses to increase their information about the diabetes disease. In addition, diabetic patients are not attending hospital appointments because of long wait in diabetic clinic, and the patients are not educated about importance of following up the appointment.

Financial factors are an important issue and the related elements are lack of health insurance, and the poor families don't have money to buy medication or follow up the appointment in the clinic. The last issue is Personal factors and there are many elements related to this issue such as poor eating habits, not following the diet program from the doctor, not complying with medication, lack of personal hygiene (foot care, nail care, and dental care), lack of health education from nurses and doctors and less awareness of complication. The focus of this study is lack of health education for diabetes patients.

**Literature review**

This study “Diabetes Educators in Safety- Net Practices”, focused on the need for diabetes educators and other health education professional to send and flexible in delivering self-management education to the patients in underserved setting. It also shows the practicality of including diabetes educators in the practice. But there are a number of limitations in this study because only three diabetes educators were interviewed, only two of the diabetes educators' were in training to become certified, and the third served as a teacher or mentor. Patients were not interviewed in this study. Information regarding patient challenges and barriers to attending diabetes education classes was based on the diabetes educators' observations. Even with limitations this study help in primary health centers in Qatar, to resolve same problems faced by certified diabetes educator.

Denham, Ware, Raffle and Leach (2011) say that there are possibilities of the family participation in the diabetes education and support in diabetes self-management education. The
certified educator started involving family members as a significant move in diabetes self-management education will positively affect individual self-management educations.

The issue here is how to create and invent methodology which enables the role of family members in participating in developing and maintaining a complex care routine at home for diabetes. This requires implementation of a new lifestyle of diagnosed members to help them carry out self-care behaviors. The family members must have more knowledge about the lifestyle of the patients such as exercise and dietary routines. As the family members are living in the same household, they can effectively participate in adopting new lifestyle changes for the patients. They are affected by each other’s behaviors because they are close to each other. Family members must attend a program on how to support diabetes self-care for the patients and they must accept for adapting lifestyle changes occurring within all family members. The issue is how to coordinate and arrange between family members different wishes in food, personal identify and traditions. Also, the family member must consider the emotional aspects of the disease and play a permanent role in smoothing the unavoidable changes in the life of the patient. The real challenge in the issue is how to match the designed program with needs of individuals for self-management. In order to involve the family members in effective participation to achieve diabetes self-management, they must receive education focusing on self-care behaviors such as healthy eating, being active, monitoring blood glucose, taking medication, problem solving and healthy coping. This involvement is considered indispensable for the family members’ participation. Their participation has a great influence on diabetes self-management. If they are educated can easily support and implement the plans aim to it and if not they will not. So, the process of involving the family members in education classes will pave the way to find solutions for difficult matters the family concerning the patient. They must attain clear and accurate information about how to deal with diabetes. The purpose of this study was to find out the opinions of certified diabetes educator (CDE) on including families for the support of diabetics and their self management education. The researchers conducted surveys containing questions on demographics, the importance of including family in diabetes education,
knowledge of family support, self-management processes and how often the significance of the family was taught. Basically, the researchers wanted to find out the Certified Diabetes Educators “perceptions of the level of emphasis placed on family roles\ support during their formal or pre-professional education” (Denham, Ware, Raffle and Leach, 2011, 531).

They found that the certified diabetes educator pre-professional education had a significant impact on their views of the importance of family involvement in diabetes education. If the (CDE) personally valued family support, they more frequently asked family members to attend diabetes education classes. Also, the (CDE) felt that they were serving diabetics needs better than the family's needs. This study shows that it is very important for nursing programs to include family theory courses which teach about the important of family support and including family members in self-management meetings for diabetes. The study also, found that (CDE) how had no training in family theory still considered their skill and ability to be very good. This can result in the (CDE) not recognizing the “differences between educating family members and educating individuals, resulting in an overestimation of what has actually been accomplished” (Denham et al, 2011, 534).

Aylen, Watson, and Audehm (2006) wrote about a project designed to increase diabetes services in Melbourne Australia. Its aim was to increase. Participation of diabetes specialist nurses to manage diabetes care in order to achieve self-management and improve means of education of the patients. If possible, it would be a joint performance between general practitioners and specialist nurses, and provide coordinated education and care. They could integrate their joint roles in the general practice clinics and improve health outcomes for people with diabetes. The study is quantitative because it refers to the systematic empirical investigation of a social issue via statistical data and to develop and employ models of the project pertaining to diabetes self-management phenomena

There is lack of knowledge of the general medical practitioners responsible for management of diabetes in Australia. They are not aware of what services are available or of the
barriers to providing care. The researchers decided to use specialist nurses to help improve health outcomes for marginal populations involving the general practice clinics. They recognized the need to set provide clinical services and quality improvement in diabetes care. The success of the project may have resulted from participation of the general practitioners who earned the trust of the diabetes patients, accompanied by specialist nurses. They met some obstacles the implementation of the project such communication and funding resources. They found that the need for increasing efforts is an essential factor to get past barriers like language, literacy and insulin provision. Therefore, the necessity of nurses' participation to overcome all barriers is indispensable. The nurses would play an important role in the arrangement of insulin therapy and providing services for those who need ongoing self-care. How to integrated services in to general practice team was the question. Australian authorities, in the scope of health and care, want to redistribute care for patients of diabetes without bias to culture, age or social class backgrounds.

“They seek to search for new supportive methods including multi-faceted procedures” (Aylen, Watson, and Audehm, 2006).

They agreed upon a given number of sessions over a specified time supervised by three relevant and reliable bodies (GPs, RN-CDEs and general practitioners). They also increased general practice divisions. The specialist nurses helped in implementation of the project by revising systems and making supportive calls telephone to the patients. They also participated in the assessment according to best practice guidelines. Every step of the project was based in project data and the prioritizations depended on patient conditions mentioned in the project data collected by specialist nurses two years prior to the project implementation. It contained educational level, socio-economic status and the recorded health condition of the patients. This helped in the process of assessment from time to time. The patients had undergone care for different periods.

The Diabetes Co-management in General Practice (DCGB) project represents a joint and integrated initiative in matters pertaining to diabetes self-management with effective participation
of diabetes specialist nurses. The results of the project were positive. First, the screening rate for HbA improved, the number of the patients meeting HbA increasing. There was a signification reduction in diabetes related emergency department presentations at six months, 12 months and 18 months. Also, there was a reduction in hospital admissions at the six months, 12 months and 18 months review. Although there were some limitations in implementation and explanation of what collected data revealed, lack of control and design, the project had useful outcomes may that guide the discovery of alternative procedures that may achieve improved diabetes self-management. This study can be used in Qatar with diabetes patients follow the diabetes clinics, to get the best coordination diabetes services.

**Discussion**

In the study of “Diabetes Educators in Safety-Net Practices”, the authors mention the challenges faced by diabetes educators in providing diabetes self-management education to a diverse population of individuals living in poverty. This situation also exists in Qatar, where the population is very diverse and includes people from India, Pakistan, Gulf States and many other countries. In addition, poverty dose exist in Qatar especially among some expatriate groups and it affects diabetes self-management. The diabetes educators in this study in describe various strategies to engage patients and overcome structural barriers to access diabetes education. Many of these strategies are applicable to Qatar, because the government can be cover these barrier and found many solutions help the diabetes patients. The authors found several reasons why the medical staff did not provide health education to diabetes patients and they put a lot of solution that can help staff to face the lack of heath education. The results come from qualitative interview data about the reasons including patient recruitment approaches, patient barriers to attending diabetes education classes, teaching challenges and certified diabetes educators integration in to the practices. In Qatar, these reasons also exit, patient recruitment is not effective and many patients have problems in attending classes. These problems can be physical or psychological; they have
problems with family, transportation, literacy and not understanding the need to attend classes. Also, the teaching challenges and certified diabetes educators’ integration into the practices is an important issue in Qatar. The diabetes educators addressed educational challenges involving different education needs, level, learning styles and cultures. As well physical those with problems including vision and hearing and patients newly diagnosed with diabetes might be highly anxious and not receptive to instruction.

The authors do a good job of this study because they found the important issues related to lack of health education for diabetes and found a lot of solutions for this problem with medical staff to protect the patients from any bad complication. Even with limitations this study has same solutions that can be application in Qatar and it will give a good results.

Remember that "research suggests that the family unit, particularly women plays a central role in the health of family members, most individuals live within a household that has a great influence on diabetes management behaviors. (Denham el at, 2011, 529)

In this study “Family Inclusion in Diabetes Education”, the purpose was to show the benefits of family participation in diabetes education. The authors found that the family members can help the medical staff to take care of diabetes patients by health education and support in diabetes self-management education. In this study, the American Association of Diabetes Educators recommends that diabetes educators provide education aiming at 7 self-care behaviors: healthy eating, being active, monitoring blood sugar, taking medication, problem solving, healthy coping and reducing risks. The authors mention “More effective solutions to improved adherence to successful self-care regimens could be the intentional inclusion of family members in a diabetes process that aims to increase the likelihood of permanent family lifestyle change”. (Denham et al, 2011, 529). This study concluded that the best ways to include family members in educational sessions are use of Diabetes Self-Management Education (DSME) methods that intentionally address family support needs. These methods are also applicable in Qatar because it can help to supplies knowledge about diabetes
disease and importance skill for life style modification. This study helps medical staff to found many ways to solve the problem related to patient education by the contribution of family members by attending the educational programs to get more information about diabetes. The authors identify solutions to solve problems faced by diabetes patients, through the integration of family members and patients in the education classes to learn important and useful information about the disease and how to care for the patients. This study can be applicable in Qatar and it can solve many problems related to this issue in all hospitals.

This study “Nurse Specialists Co-managing Diabetes within General Practice”, provides a brief discussion of diabetes co-management in general practice and focuses on clinical service delivery and quality improvement in diabetes care. The participation of diabetes specialist nurses to manage diabetes care in order to achieve self-management and help the patient know everything relating to this disease is important. This situation also exits in Qatar; the diabetes specialist nurses attend the all patients’ appointments in diabetes clinics. The authors note the importance of specialist nurses in providing coordinated education and care for diabetes patients. Also, the nurses can integrate their joint role in to the general practice clinics and improve health outcomes for people, because the diabetes nurse plays a major role in all aspects. This study helps medical staff to solve the problem related to patient education. The objective of this study is to assign specialist nurses for health education, so that the medical team is not blamed from the diabetes patients. The authors show the issues related to lack of health education for diabetes patients and they offer several solutions for this problem that work in Qatar field. This study can be applied in Qatar and it can solve many problems in all hospitals by helping to focus on the importance of the role of diabetes specialist nurses.

Conclusion

Based on the literature review, diabetes mellitus is a chronic disease which is increasing rapidly and has many complications. The world must focus on this problem to save the patients’ life.
Health education is one of the patients’ rights, and it helps to reduce many complications that can happen for lack of health education for diabetes patients, because when the patients know about everything regarding to this disease they will protect themselves and take care for any complications. All countries should work hard to provide enough diabetes educators in diabetes clinic and encourage patients and family members to attend the formal courses in family theory including communication methods among family members, developing effective family health routine and information on how family can provide psychological and household support, to get beneficial information that can help them to deal with this disease without complications. The nurse educator plays an important role in the patient life though health education.

**Recommendation**

According to staff nursing experiences at primary health centers, they have shown many of deficiencies regarding the education of diabetes patients. Most of the patients do not know how to protect themselves from the complications of this disease. These studies show the reasons for this failure, and found that most nurses in the diabetes clinic do not have enough information about the diabetes because most of them do not specialize as diabetes nurse or diabetes educator. In addition, there is a lack of time during meeting with the patients in the diabetes appointment. Most of the people did not like sitting after completion of the appointment. There are many solutions to the problems faced by the diabetic patients and diabetes health educator. The Ministry of Health is concerned to create solutions suitable for all parties.

In the three studies related to this issue, a lot of solutions were found which can be applied in Qatar and solve many problems in primary health centers. The first solution is the Ministry of Health must provide specialized nurses in diabetes and health educators for all diabetes clinics to encourage diabetes patients with information about diabetes disease and how to protect themselves from bad complications; this could be done by health education given during patient appointment or during the health courses. Also, the Ministry of Health should make healthy
programs for diabetes patients, nurses and family members to teach them about diabetes disease and self-care management for the patient. Because the Ministry of Health is the first responsible for protector of their patient health. These programs it should cover all patients’ barriers such as language, personal issue, transportation and teaching challenges, provide interpreters for all languages in the programs, and organize the class schedules according to patients’ conditions. The Ministry of Health should organize with government to provide bus transport for patients who do not have transportation to attend these classes every time. The educators of these classes should motivate the family members to participate in the classes by inviting them to attend with patients to find out everything about diabetes mellitus and to support the patients and take care of them. According to experiences there are many of older diabetes patients and children who are not literate. So, the family members should attend these programs and the patient appointment to follow every important thing related to patient status. Finally, the Ministry of Health and the government must have a campaign for this disease through all media such as audio, visual and text to inform all people about the important information to decrease the number of bad consequences.

Reference


Hospital infection is also called nosocomial infection. It is the single largest factor that adversely affects both the patient and the hospital environment. Infection can be acquired as cross-infection from the other patients, hospital staff and visitors. Hospital-acquired infections increase functional disability and emotional stress of the patient and may lead to disabling conditions that reduce the quality of life. Infections are commonly transmitted when hospital staff does not follow the infection control policies and protocols. For example, if staff does not practice the correct hand hygiene technique regularly, these staff will be a source of transferring infection inside and outside hospital. As a result, the infection may reach to the staff’s house. Therefore, the staff’s family members might be infected.

Issues

There are several issues that can cause a high rate of infection in the hospital. One of them is the staff issue which can be the main reason for transferring infection in the hospital setting. The sub issues that can arise include the staff not following infection control guidelines and not doing proper hand hygiene practice. New staff is not trained about infection control protocols because they have not finished their orientation program yet. Lack of the positive role models in the hospital setting can be a consequence of the staffing issue. Besides that, lack of positive reinforcement or reward through an appreciative letter from immediate supervisors can be discussed as staffing sub issue. The second issue is transferring the infection among the patients and health care workers which can occur when health care employees use same personal protective equipment like gloves for different patients. In addition, physicians and staff do not use alcohol hand rub during patient rounds. Also, they do not practice sterile technique during procedures like intravenous cannula insertion. Some staff enters isolation room without wearing
proper personal protective equipment like, mask, gown and gloves. Lack of aseptic technique while handling invasive lines like arterial lines or central vein lines can cause infection too. The next issue is hospital resources which have consequences for the patient who will stay a long time in hospital which can cause shortage of bed in the hospital. Moreover, due to the infection, patient will need long course of antibiotics. If infection develop in the hospital, patient care will be affected which can cause deterioration in patient condition and the patient’s immunity system will be reduced due to infection. Also, long term use of antibiotics can affect on the renal system of the patient which will lead to another problem that can affect the patient care. The visitor can be one source of high rate of infection in hospital. Too many visitors and eating in isolation room can cause more infection inside the hospital. Education is important in minimizing the infection rate in the hospital. However, different instructors with different ways of teaching can cause confusion among staff. Additionally, there are less in-service classes in the hospital and all the staff cannot attend. So, some staff does not receive the necessary education regarding the correct way of infection control practice inside the hospital.

All the themes and subthemes are important to be understood and recognized. As health care workers are very close to the patient and they are playing a big role in patient care, staff is the main source of transmitting the infection between patients and health care employees. Therefore, it is very important that the staff will be familiar with the policy of infection control to prevent the infection in hospital that can be caused by them.

**Literature review**

Erasmus et al (2009) reported in the article, “A qualitative exploration of reasons for poor hand hygiene among hospital workers: Lack of positive role models and of convincing evidence that hand hygiene prevents cross-infection”. The main purpose of this article is to identify the potential determinants of hand hygiene compliance among health care employees in hospital. Infections are the main hazard to patient and staff who are working in hospital settings. This
problem can be solved with an adequate level of hand hygiene compliance which is important in preventing cross transmission. Improving hand hygiene compliance by developing interventions with sustainable effects and information about behavioral determinants of hand hygiene compliance is important (Erasmus et al, 2009, p. 415). Furthermore, the authors explained that compliance with hand hygiene among different groups of hospital employees may be manipulated by beliefs and norms that vary between the groups (Erasmus et al, 2009).

The authors used a qualitative methodology to study the hand hygiene compliance between nurses, medical students and doctors in five different hospitals in the Netherlands. Nine focus groups and seven individual interviews were performed with health care workers. Participants worked either in intensive care unit or the surgical ward. Twenty four participants were non ICU nurses and twenty three were ICU nurses, four were attending doctors, three were residents and one was a medical student. The individual interviews were performed with doctors as their schedules did not allow for focus group participating. The focus group interviews took 30-60 minutes and included 4-10 participants. In the interviews, participants discussed their opinions about hand hygiene practice openly and all opinions were respected. Individual interviews took 20-50 minutes. Interviews were recorded with a voice recorder and were fully transcribed. The questions included: “Who and what is a benefit of hand hygiene? When do you perform hand hygiene? What are the advantages and disadvantages of hand hygiene?” (Erasmus et al, 2009, p.416) Nurses and medical students stated the importance of hand hygiene was to avoid cross infection between patients and themselves. Physicians expressed the significance of hand hygiene for self protection but they recognized that there is a lack of evidence that hand washing is useful in controlling cross-infection. In addition, all participants said that senior staff is the most important positive role models for hand hygiene compliance but most of them are not doing proper hand hygiene and junior staff is learning and following from them. Some of the participants, like the medical students, clearly stated that they follow the behavior of their superiors which often guides to noncompliance during clinical practice. The results indicated
that a lack of positive role models in hospital settings may delay compliance of hand hygiene and can cause infection between staff and patients which result in negative consequences for both patients and staff.

The importance of hand hygiene in patient care areas has been researched by authors of the article “Improving hand hygiene adherence among nursing staff” (Britner, Allen & Fowler, 2011). They explained the importance of maintaining effects of behavioral and educational interventions on hand hygiene obedience and health care-associated infection. The authors stated that hand hygiene is very simple and most useful way to avoid health care associated infections. Hand hygiene has been defined by the Centers for Disease Control and Prevention (CDC) as hand washing, antiseptic hand wash and antiseptic hand rub. The CDC has identified hand hygiene as the most important tool for reducing the rate of infection in health care settings and the joint commission has made hand hygiene an international patient safety goal. The World Health Organization issued guidelines for hand hygiene to improve the practice among staff. As well, the health care workers who are not following hand hygiene guidelines may have a negative impact on safety of patients and themselves. The sub issues mentioned in this article included the rate of adherence to hand hygiene before patient care were much less than after patient activities. Also, in intensive care units and emergency situations, the rate of hand hygiene was less due to frequent activities which need hand washing and staff didn’t have time to perform hand hygiene. Some researchers have suggested visual reminders, performance feedback and a change in the type of soap were useful in improving adherence of hand hygiene. The authors used a quasi-experimental design to assess the effects of education only or education with 1 or 2 types of behavioral interventions on hand hygiene adherence and unit-acquired infection rates (Britner, Allen & Fowler, 2011). The plan was included to choose the staff nurse and patient care assistance from three medical-surgical units that have the same facilities of health care and staffing. Participants divided in two experimental groups and one control group. The control group obtained education in the form of self study with pre and post tests.
The experimental groups received the same teaching plus behavioral interventions like individual and unit rewards. In this study, they used a hand hygiene assessment tool which was developed by the infection control department to document hand hygiene adherence. A total of ten data collectors were assigned to these three units and they observed the staff during three different shifts. The researchers observed 1203 observations which were 633 staff nurses and 570 patient care assistances. They found the staff who received positive reinforcement behavioral intervention like rewards or some gifts with education program were more useful in improving hand hygiene adherence then staff who were received education program only. Finally, the authors recommended that unit-reward programs plus education were successful in improving hand hygiene adherence.

The article “Health care worker’s hand decontamination practices: Compliance with recommended guidelines” (Creedon, 2005) reported on monitoring health care worker’s compliance with hand hygiene principles during patient care in an ICU in Ireland before and after achievement of hand hygiene program. The author stated that “The study explored the predisposition (knowledge, attitudes and beliefs) to compliance with hand washing guidelines before and after implementation of program” (Creedon, 2005, p. 209). The author identified that hospital infections are a problem for both patient and health care workers and the infection rate in the hospital can be decreased if health care workers follow the infection guidelines. The themes discussed in the article included interventions that can be useful to enhance compliance of hand hygiene such as increasing educational programs, a motivational program and providing hand rub dispensers at each sink and rooms. A quasi-experimental design was used to collect the data. The study was done in the medical/surgical ICU with 344 beds in an Ireland hospital. All nurses, doctors, care assistants and physiotherapists were asked to participate in this study. Two tools were used in this study. One was structured observation designed to collect observation data on compliance with hand hygiene guidelines. The second tool was a self report questionnaire designed to gather the feedback from health care workers about beliefs,
knowledge and attitudes regarding compliance with hand hygiene principles (Creedon, 2005, p. 210). Some staff from the health care workers were chosen to observe participants. They attended three beds accidentally during morning shift which was observational period for two hours. A collection box was placed in the nurse’s station for participants to complete the questionnaire. All staff on duty during the pre-test (4 weeks) and post-test (4 weeks) periods were requested to finish the questionnaire. Six weeks after the pretest, health care workers were predisposed to follow hand hygiene guidelines by using educational handouts, applying posters of hand washing near each sink and frequent use of hand rub which was given feedback by data collectors to staff after pretest. The educational handouts included information regarding the benefits of hand hygiene, proper technique of hand washing and how infection can be transfer via poor hand hygiene in simple way that everyone can read easily and kept on nurse’s station. In addition, different hand washing posters were developed and kept in place where hand washing occurred. These interventions had a positive impact on post test questionnaire. In the pretest, 23 nurses, five doctors, two physiotherapists and three care assistants were observed and in post test phase, 22 nurses, eight doctors, four physiotherapists and six care assistants were monitored (Creedon, 2005, p. 212). They found that compliance rate to hand hygiene was 51% in pretest and 83% in post test. The author recommended providing an alcohol hand rub at each bedside and encouraging the staff to use it during patient care was very successful in reducing health care-associated infection. Furthermore, the author encouraged health care workers to be more familiar with infection control guidelines by reading hand hygiene handouts to protect themselves and their patients from infection.

**Discussion**

As mentioned previously, lack of the positive role models staff was identified in the hospital setting. It is very important that head nurses should encourage the staff for doing the proper hand hygiene which it has a good impact on reducing the infection that can be caused by the
staff. There was evidence from the literature review that some staff, especially junior staff has a tendency to follow their preceptors which lead to noncompliance after they see noncompliance by others (Erasmus et al, 2009, p. 417). In addition, medical students who have hospital training, usually follow the hand hygiene behavior of physicians whom they observe at work which results in poor hand hygiene habits that will, in turn, be copied by future students (Erasmus et al, 2009, p. 418). It was discussed in the article “Improving hand hygiene adherence among nursing staff” (Britner, Allen & Fowler, 2011) that visual reminders, performance feedback, and positive reinforcements like rewards were helpful in improving adherence of hand hygiene. Besides that, the infection rate in the hospital was discussed by Creedon (2005), as he said that infection rate in hospital can be reduced if the health care workers follow the infection guidelines. Also, he suggested the infection guidelines to be written as handouts in a simple way that everyone can understand and read easily. He mentioned that developing the educations programs and providing hand rub dispensers on each sink and room can be helpful to increase the obedience of hand hygiene (Creedon, 2005, p. 215).

**Conclusion**

In conclusion, the result of qualitative exploration was done by Erasmus et al, (2009), indicated that lack of positive role models among the staff may delay hand hygiene compliance. The methods for improving hand hygiene compliance may include encouraging the senior staff to follow hand hygiene guidelines correctly and providing a supportive environment with all hand hygiene facilities available. Furthermore, authorities responsible for medical training of physicians should be involved in encouraging better hand hygiene compliance because it may increase compliance among leader of health care professionals. According to Britner, Allen & Fowler (2011), the education programs with positive reinforcement and behavioral interventions have a positive impact on improving hand hygiene adherence. Based on experiences at Hamad General Hospital (HGH) visual reminders and positive support are useful in decreasing the
infection rate in hospital. There is staff in each area of Hamad General Hospital who monitors hand hygiene indicators monthly which is helpful in improving hand hygiene practice and reducing the infection rate in hospital. Creedon (2005) recommended that provision of an alcohol hand rub at each bedsides and performance feedback was useful in decreasing the infection among the staff and patients. In addition, he suggested multidisciplinary education regarding the infection control guidelines (Creedon, 2005, p. 215).

**Recommendation**

All the recommendations that were mentioned above are significant in reducing the rate of infection in the hospital. However, recommendations which are implemented in Qatar at Hamad General Hospital include development of an infection control committees, providing of the hand rub dispensers, posters of hand hygiene at each sink outside patients room and corridors that staff can easily reach, and encouraging the staff to use alcohol hand rub during the patient care which is very successful in reducing health care associated infection. Each unit observes all health care employees at Hamad General Hospital and does monthly hand hygiene indicators. After that, the collected data of hand hygiene will be sent to the infection control nurse. The infection control committee analyzes the data, and sends the report to each unit monthly to assist the head nurses to control the infection rate in each unit. Since the infection control committees provide more hand rub dispensers in each unit and do the monthly hand hygiene indicators, the infection rate has been reduced at Hamad General Hospital and, hand hygiene practice has been improved among the staff. Another important point that can reduce the infection in the Hamad General Hospital is to establish more regulated policies and protocols that can control the staff especially doctors during doing sterile procedures. Besides that, strict regulations and rules like punishing doctors who break down the infection control policies due to their careless.
References


Overcrowding in paediatric emergency centers and ineffective use of emergency services by Aisha B. Khan

Introduction

Paediatric emergency centers (PEC) are designed to receive paediatric medical emergency cases. The aim is to provide prompt and high quality care and treatment. Recently it has been noticed that many non-emergency people are seeking treatment in emergency centers rather than from other health care centers for a variety of reasons. This in turn causes misuse of the emergency services, creates unnecessary crowds in the emergency centers and prolongs waiting time for the patients to be seen and examined by the physician. This issue exists also in all PECs in Qatar. As a result, sick patients go home without treatment, increases work load of the staff and may cause delay in providing care to those patients who need urgent treatment. This all affects the quality of the care provided in PEC, therefore; the reasons behind this phenomenon must be addressed in order to find proper solutions. The following are some of the reasons that contribute to the over crowdedness in PECs:

Issues

Staff shortage

Staff shortage is a common issue that results when PEC is overcrowded. This shortage usually occurs due to increased number of patients which in turn increases the work load of the staff (nurses, doctors) and increase staff use of the sick time. Another reason for the staff shortage is the peak busy times which are related to the weather changes. The patients’ census automatically increases during the peak times. For example; in winter, allergies and asthma cases significantly increase, and in summer, heat stroke and food poisoning cases are more common. Presence of non emergency cases during peak time will make the staff busier and will affects the care provided to urgent cases. Also, new epidemic diseases such as H1N1 require new types of investigation and
procedures which also increase the work load of the staff. New doctors who are not fully oriented about unit protocols of treatments often request unnecessary investigations which increase the load on the nurses and other paramedical staff.

Wrong patients

Wrong patients also contribute to the overcrowding in PECs. Patients with simple cases like cold and fever are seeking treatment in emergency because they are not aware of the location of the health centers and the type of the cases that are supposed to be treated in the emergency centers. There is a lack of public awareness about difference between services available in PECs and services available in PHCs. In Qatar; a lot of mild trauma and minor burn cases are coming to PEC while they are supposed to go to Hamad emergency or public health centers (PHC). Moreover there are patients coming to PEC for check-up as it is done immediately which is faster than other services. Patients’ also coming to emergency as services are free. People prefer to seek treatment in the emergency because they believe that the treatment in emergency centers is safer and more effective.

Roles and policies

Roles and policies of the department play a major factor in the crowdedness. For example, all PECs in Qatar have a policy stating that all patients presenting to PEC must be registered and examined by the physician. This policy means that all patients, even if they have very mild health concerns that could be treated in PHC must be seen by the doctor and proper treatment must be given. Also the health centers in Qatar are not opened 24hrs. Most of the health centers are closed during weekends. Therefore, even though the treatment is available in health centers or the patients know that the health centers are the suitable place for his treatment, still they cannot access it during weekends, so they are required to go to PEC. Last issue is that there are some types of
investigations and treatments available in PEC that are not available in PHC, consequently PHC doctors refer their patients to PEC.

**Literature review**

Overcrowding and inappropriate use of services is now a daily major concern of all PECs all over the world. This issue was examined by Lucas and Sanford (1998) in “An analysis of frequent users of emergency care at an urban university hospital”. They conducted a study to determine those patients who are recurrently seeking treatment in the emergency department (ED) and compared them with the general ED population. They explored the reasons behind their preference to seek treatment in the ED rather than other health care facilities. The study surveyed a number of patients who were recurrent visitors to ED. The repeated ED users were identified as any patient who visited ED twice within one month or four times within one year. Mentally ill patients, patients with unstable vital signs and patients with scheduled revisits for a variety of reasons were excluded from this study sample.

The study was conducted over a period of 49 days. Clinical research assistants were assigned to conduct the survey. Patients were asked to complete the survey during their waiting time in order not to interfere with their needed care. A total of 6,523 patients were seen in the ED during the survey period. One hundred and eighty patients were included in the survey. The study population was more likely to be black and the chief complaints of the study population varied. 60% of those patients described their selves as old or with recurrent medical problems and 40% of them had new health complaints. Most of the survey group patients believed that their problems were serious and they needed immediate care. The study group rate of admission in ED was almost double the rate of admissions among the general ED population; this indicated that recurrent visitors to ED were likely to be sicker since the admission rate for them was higher. Other most common reasons for repeated visits to ED as identified by Lucas and Sanford (1998) in this study are: Patients thought their condition needed fast action, ED is more convenient, long waiting time for
appointments with their regular doctors in outpatient department, lack of insurance and lack of knowledge about other health care facilities.

The presence of non urgent patients in the ED leads to prolonged waiting time and misuse of ED services. Therefore; Afilalo et al (1995) examined the appropriate and inappropriate use of ED services. The aim of their study was to determine whether the non urgent patients who use the ED as primary care are the cause of over crowdedness in the ED and explored their reasons to select the ED as a primary care facility. They conducted a survey over a period of two weeks at a university tertiary care teaching hospital. The research assistant surveyed patients over two shifts, day shift and evening shift. No one was there to cover night shift, but all night shift patients’ charts were retained and half of the charts were selected and included in the study randomly. Sample size was 849 patients.

The research assistants divided the ED users into three categories. The first category represent patients who can be assessed either in ED or other well equipped health care facility within 6 hours from initial presentation, and the last category represented patients who can be assessed in ED or other health care facility in a period more than 6 hours from initial presentation. The research assistants were assigning patients as category one based on their condition while they are in the ED. Category two and three assignments were done by three emergency physicians. After excluding category one patients, category two and three patients were interviewed to identify the reason why they choose ED as a primary source of treatment and whether they are aware of other health care facilities in the area.

There are four other common reasons expressed by category two and category three patients: other clinics were closed at that time, trust of ED staff and services, perception of severe illness, proximity and lack of awareness about other health care services. The authors found through their study that the misuser’s category is very small, 129 patients out of 849 patients, thus they can’t be considered as a direct reason of overcrowding in the ED. Rather, it is suggested to determine the
health beliefs of the patients and their level of knowledge and perception about the severity of the
disease would be helpful points to focus on in order to find a solution for the problem of
overcrowding in ED.

The problem of overcrowding in PEC and ineffective use of services by non urgent patients are
also explored by Kini and Strait (1998) in “Non urgent use of the paediatric emergency department
during the day”. Their objective was to determine the pattern and reasons for non urgent use of
PEC. The method was a prospective, cross-sectional, observational study at university-affiliated
children’s hospital emergency department. The study was conducted over a period of 6 months with
a total of 364 patients were included in the study. The timing of the study was between 0630h and
1830h. This timing was chosen because it is similar to primary care physicians’ (PCP) office time.
Information including demographic data, insurance status, chief complaint and whether they
contacted their primary care physician prior to visit the ED was collected from non-urgent patients in
ED.

The authors of this study found that half of the study population sought treatment in the ED
during primary care physician office time where they could be treated. The majority of the non
urgent patients did not consult their primary care physician prior to coming to ED. Some of the
reasons of non-urgent patients included: no primary care physician available, ED was more
convenient, they thought their condition was serious, no appointments required and lack of
alternative care settings. Depending on the result of the study, the authors suggested that lack of
patient education, lack of trust and perception of inconvenience of access to PCP are important
factors contributing to the problem of overcrowding in the ED.

Discussion

Through experience in PEC in Qatar, it has been found that presence of non-urgent patients
in the emergency departments is creating the problem of over crowdedness in PEC. Patients with
simple influenza, common cold or mild fever seeking treatment in PEC create a huge work load and stress on the medical team. This has a negative impact on the quality of services. Diverting non-urgent patients to the proper health care facility could be a solution for this problem. Therefore identifying the reason for non-urgent patient to use ED services is important in order to find reasonable solution.

This essay found that there are many reasons for utilization of emergency services by non-urgent patients. Lack of knowledge of the people about the location of primary health centers (PHC) is one of the common reasons for non-urgent patients to visit the PEC. Also, unawareness of the population about types of services provided in other health care facilities leads the people to consider PEC as a first health care provider. In Qatar, PEC provides only medical care, but many people with history of falls, minor burns and trauma present for treatment instead of PHC or adult emergency. This simply wastes the patient’s time and delays needed care and treatment which may have negative consequences on the patient’s health. This is consistent with the study findings of Afilalo et al (1995), wherein more than ten percent of their study population explained their visit to PEC instead of PHC by unawareness of services provided in PHC.

Convenience is considered another major reason for many non-urgent patients to visits PEC for treatment. Based on observation in Qatar, most of the people believe that emergency services are faster, safer and more effective than the other health care facilities. This might be because they think that emergency staff members are more competent and skillful in providing care due to their experience and the huge number of patients they are dealing with every day, and also because of the availability of various types of equipment and medication. This corresponds to the reasons found by Afilalo et al (1995) in their study. Familiarity or trust in the ED services was a reason of 12.1% of their study sample and 8.6% of them expressed dissatisfaction with other health care facilities. Although convenience was rarely considered a reason for targeting PEC for treatment in the
research study of Kini and Strait (1998), still they assumed that convenience could be a factor that affects patients’ decision to use emergency services.

Lucas and Sanford (1998) noted a variety of reasons for patients to use emergency services. One fifth of all patients in their study stated that they felt the present problem was medically urgent. Patients’ perception and judgment of their health condition differs from perception of health care providers. People may think that their condition is so serious while medical staff may consider it mild symptoms. This is consistent with the experience in PEC in Qatar. Many people decide to seek treatment in PEC rather than other health care facilities because they believe that their child’s condition needs immediate attention and prompt care.

As a solution for over crowdedness, Kini and Strait (1998) suggested in their study that a gate keeping system is not adequate to control the crowd in PEC. A gate keeping system means assigning a physician or a competent skilful nurse in the reception of the ED to assess patients’ condition upon arrival to ED, and to triage the patient according to his condition. Either the patient will be seen in ED or will be directed to the proper health care facility. This idea may significantly limit the number of patients in PECs but by applying this idea a number of patients may be missed and may come back to emergency in worse condition.

Although frequent PEC users are creating crowds in PEC while they can easily access PHC, still their health concern must be addressed and treated. Lucas and Sanford (1998) mentioned in their study paper that increased ED utilization may not be considered as abuse of the ED, but it may alert us that the health care needs of these patients have not been met in their usual primary care settings. Thus they believe that improving the quality of the health care facilities in PHCs would come with better outcome instead of limiting the access of non urgent patients to ED. If Qatar improves the quality of care in PHC and provides the PHC with various types of equipments and lab machines for different types of investigation, it will thereby improve people’s perceptions regarding PHC services.
Conclusion

In summary, minimizing overcrowding in PECs is an international concern of all emergency centers. Based on data from above literature review and discussion, there are many reasons for non-urgent patients to use PEC services. Perception of severity of the illness, lack of knowledge about the available health care facilities, inconvenience and lack of trust in PHC services are primary factors influencing the patient’s decision in choosing PEC as a primary health care provider. In addition, the findings indicate the need for further research studies on people perception about the severity of the disease. Many people get panic and run to PEC when their children have some symptoms which are medically very mild and don’t require any medical intervention. Therefore; public education is an essential factor that can help in reduction of these phenomena. Raising the quality of the services in the PHC may also help in reduction of crowd in PECs. Overcrowding in PECs and misuse of emergency services is still considered a serious problem affecting the quality of the care provided in all PECs all over the world. Although it can be concluded from the above studies that non-emergency patients probably are not the main reason for crowd in PEC, still the issue exists, people are utilizing the space and exhausting medical staff.

Recommendation

As discussed above, many suggestions can be implemented to help in decreasing the overcrowding and maintaining the quality of the care in PECs in Qatar. The first solution would be to educate the public regarding different location of the PHCs all over the country and the variety of services they provide. Many people are seeking treatments in PEC simply because they don’t know about the PHC and their role in the community. The second suggestion is to open walk in clinics or fast track clinics for treating the non-urgent patients arriving to PEC, thus non-urgent patients will be treated separately and quality of the care provided to the urgent cases will not be affected. Also by opening fast track clinics, the number of patients leaving the PEC without being seen or examined will decrease. Another solution can be through opening a PHC near each PEC so that non-urgent
patients coming to PEC can be directed toward the PHC and by this it can be ensured that the patient utilize the alternative facility services and patients condition will not be ignored. Also this idea will enrich people’s awareness about which types of health concern that must be seen in PEC and which one can be seen in PHC. This awareness will help people utilize the proper health care facility in future. Increasing the cost of treatment can help in reduction of the increasing census of patients being seen in PEC, but still it can limit the access of the poor population to emergency services who are unable to afford the cost of treatment elsewhere and therefore; morbidity and mortality rate can be expectedly increase. To avoid increase in morbidity and mortality rate due high cost of treatment in PECs, seriously ill patients must be treated without payments. Conducting some research studies to determine people’s norms and beliefs toward their health condition probably will increase medical staff awareness about people perception which in turn can improve the quality of the care.

Reference


The impact of medication error on patient’s safety and staff’s performance

by Walaa Asaad Makhoul

Introduction

Outcomes that arise from medication errors and its effect on patient’s safety are very serious, as they have negative impact on the patient’s health. The adverse effect is varied and depends on the type of medication errors which include preparation errors and administration errors. Therefore, the impact of medication errors can be sometimes unremarkable, but it can cause death sometimes too. Additionally, medication error can harm not only the patient, but also the staff who might be doctor, pharmacist, or nurse. The consequences of medication error on staff usually depend on the severity of the effect of the medication on the patient. Consequences can be verbal warning only, or sometimes termination. Besides that, the psychological status for the patient as well as his/ her family might be affected if the patient or his / her family came to know that the patient’s condition became worse because of the medication error that occurred from the staff. Therefore, health care administrators need to reduce the percentage of medication error. Thus, hospital should establish regulated policies and strict protocols to minimize medication errors. Moreover, they should provide a more relaxed environment for the staff to work in with less stress.

Issues

There are many issues that arise from this problem which include deterioration in patient’s condition and increase in the patient’s complications. Therefore, patient’s hospitalization period will be prolonged, and this will consume additional hospital resources. The patient might die as a result of the medication error and this will lead to an investigation of the event which requires a huge effort from the hospital. Moreover, staff might be blamed and criticized as a result of medication error, and this will put the staff under more stress, or staff will be discharged from employment. As a result of staff termination, staff might have financial problem, the hospital will have shortage of staff, and chances of staff mistakes will increase due to overload that result from staff shortage.
Another important issue that can occur from this problem is that the patient and his/ her family will become dissatisfied and will lead to lose the hospital trust which will affect its reputation.

**Literature review**

Agyemang & While (2010) in the article “Medication errors: Types, causes and impact on nursing practice” defined the medication errors as well as adverse drug events and its consequences. This article explored the individual and organizational factors which lead to medication administration errors between nurses within hospital region settings. Additionally, authors discussed the serious outcomes of medication errors on nurses.

Medication error has been defined as a failure or mistake that can occur during the medication treatment process which leads to or can result in harming patient (Agyemang & While, 2010). The adverse drug events are the injuries resulting from using a drug that can increase the hospitalization period, utilize extra resources and reduce patient satisfaction. The consequences of adverse events in the United Kingdom were studied in two teaching hospitals in London. This quantitative study involved 1014 admissions. Ten percent of patients experienced adverse drug events increasing their hospitalization period and incurring additional costs. Although medication errors can increase during any of the medication process stages which include: prescribing, transcribing, dispensing and administration stages, studies found that prescribing and administration errors are the most common form of medication errors. The quantitative study that was done by Leape et al (1995 in Agyemang & While, 2010) found that 39% of medication errors occur during the prescribing stage, and 38% occur during the administration stage, while the rest occur equally between the other stages of medication process. Factors which lead to medication administration errors between nurses are divided into individual and organizational factors. Individual factors include policy and procedures, stress and tiredness, and knowledge of medication. Organizational factors involve distractions and interruptions, medication delivery system, quality of prescriptions, heavy workload and multi-tasking and design of technology. Besides that, the impact
of medication errors on nurses has a huge part in this study as an independent, nationwide survey of 1039 nurses was conducted by Inviro Medical (2007) and the American Nurses Association. The result of this study found that 97% of nurses were worried about the medication errors. Although medication error is a multidisciplinary task that involves doctors’ prescribing and pharmacists’ dispensing, nurses have responsibility for checking the medication before administering it to the patient (O'Shea, 1999 in Agyemang & While, 2010). Around 70% of all prescribing errors are corrected by pharmacists and nurses before administration. Unfortunately, nurses do not have similar safety system during the administration stage. That is why nurses’ mistakes may reach to the patient. Since patients remain the obvious victims, nurses who make medication errors suffer from feelings of guilt, loss of confidence and fear of disciplinary action. Therefore, nurses do not like to report medication errors if they do not harm patients (Agyemang & While, 2010).

In addition, the problem of medication error has also been discussed by Sarvadikar, Prescott & Williams (2010) from another point of view in “Attitudes to reporting medication error among differing healthcare professionals”. This article focused on the importance of reporting medication error by healthcare providers and its impact on the patient’s safety. This qualitative study had a questionnaire that was distributed among fifty six healthcare professionals who works at a 900 bed tertiary referral hospital which is allocated for 500,000 of people who live in the northeast of Scotland. This questionnaire had two different scenarios and each one of them had four different patient’s outcomes of worsening degree. Depending on each of these patient outcomes, four themes were determined: the probability of being blamed, being disciplined, losing work, and reporting the medication error. A scale ranging from 1 to 5 was used to describe the likelihood of particular response. However, nurses and pharmacy staff are more likely to report errors than doctors. Results suggested that nurses and pharmacy staff are likely to believe that they will be blamed for an error more than doctors. Nurses’ expectation of receiving disciplinary action was very high, while doctors and pharmacists do not expect that unless the error causes a severe impact on patient’s health. Additionally, unlike doctors and pharmacists, nurses believe that as patient’s
condition become worse due to medication error the chance of losing their job will increase. Moreover, nurses and pharmacists tend to report all types of medication errors regardless to the patient’s outcome. In contrast, doctors report errors that have a serious effect on the patient.

The study recommended that hospitals must review their policies regarding to medication error to ensure that staff, especially nurses, are encouraged to report medication errors without feeling of fear, and with huge support and a blame-free culture (Sarvadikar et al, 2010).

Medication error was also investigated by Young, Slebodink & Sands (2010) from a different aspect which was “Bar code technology and medication administration error”. The aim of this qualitative study was to find out whether implementation of bar code medication administration system is associated with decline in medication administration error rate. According to this study, avoiding medication error depends on the loyalty during the process of checking the patient’s five rights which include right patient, right drug, right time, right dose and right route. In fact, these five rights might be affected by environmental distractions which lead to fail following standard protocols. These patient’s five rights were the themes of this study. The overall medication error rates were determined before and after implementing the bar code medication administration system. Six studies were done, but different results were found. Two studies reported that the incidence of medication administration error rate related to right patient was reduced after implementing of the bar code medication administration technology. Related to right medication, three studies were done and each one of them showed different result from the other, as one of them did not show any difference before and after using the bar code technology. Another two studies showed an opposite result between increasing and decreasing of the medication administration error. When moving to another issue which is right time, some studies reported a significant reduction in medication administration error, while others showed absolute increases in medication administration error. Results related to right dose were varied as some results brought out a decrease of medication administration error. In contrast, another results displayed an increase
in medication administration error. Finally, some studies were done regarding to the right route and the results were contradictory, as some showed decrease in medication administration error, but the others showed an increase in medication administration error related to this issue.

Although the bar code technology has been available since the early 1990s, there are a decreased number of research studies that prove or disprove the effectiveness of bar code technology in preventing of medication error during the administration process. Therefore, further research is recommended to be able to know the accurate effect of using the bar code medication administration system (Young et al, 2010).

**Discussion**

As it was mentioned previously, factors which lead to medication administration errors between nurses are divided into individual and organizational factors. Individual factors include policy and protocols, stress and tiredness, and knowledge of medication. Organizational factors contain distractions and interruptions, medication delivery system, quality of prescriptions, heavy workload and multi-tasking and design of technology (Agyemang & While, 2010). Patient’s condition might be affected and the tendency of having complication can increase if these factors remain the same and no action was taken to minimize them. Besides that, it is very important to have less stress environment for the staff to work in, as heavy workload can lead to more medication errors. As a result, the patient’s condition might be deteriorated and the staff might be blamed by their administrators. This can lead to keep staff under more stress, or staff resignation which will lead to have a shortage of staff at work area and aggravate the problem. Besides that, as a head nurse, it is very important to make sure that all staff nurses have enough knowledge about the medications that are usually used in the unit which will help in decreasing the chance of medication errors. In addition, according to Sarvadikar et al (2010), hospitals must review their policies regarding medication error to ensure that staff, especially nurses, is encouraged to report medication errors without feeling of fear, and with huge support and blame-free culture. The evidence of this issue
was also provided by Agyemang & While (2010), as it was mentioned in their study that nurses who make medication errors suffer from feeling of guilt, loss of confidence and fear of disciplinary action. Therefore, nurses do not like to report medication errors if they do not harm patient. Encouraging nurses to report their mistakes without punishing them will automatically create a peaceful environment between the staff and will let them to feel free of anxiety if they do mistakes unintentionally.

**Conclusion**

In summary, based on experience, medication errors that occur during the administration stage can be minimized by having a witness during administration the medication to the patient, as nurses do during the transcribing stage. Individual, as well as organizational factors which contribute medication administration error can be reduced by providing helpful strategies that include: following medication policies and procedures provided on the wards, checking all five rights to confirm that they are correct before administrating the medication to the patient, and using of electronic medication prescriptions to prevent any prescription error, or illegible handwriting (Agyemang & While, 2010). According to Sarvadikar et al (2010), accurate reporting of individual medication errors is essential to identify the system mistakes that can lead to the likelihood of future errors. Therefore, error reporting helps improve medication safety by addressing system failures and helps to prevent future errors by allowing appropriate staff training. Authors suggested that hospitals should review policies on error reporting to ensure that staff is encouraged to report the medication error without fear (Sarvadikar et al, 2010). Based on experience at Hamad Medical Corporation, bar code technology system has a significant outcome in reducing medication error. Providing less stress work area to staff to work in can also minimize chances of mistakes that can happen from the staff.

**Recommendation**
Based on observation, medication error can be reduced if two nurses administer the medication to double check all five rights by both of them. Additionally, experience at Hamad Medical Corporation has showed that using electronic medication prescriptions has a positive impact on minimizing the medication error, as it helps reduce the mistakes that can happen from the doctor’s handwriting. Bar code medication system has been started at Hamad Medical Corporation recently in some wards, and it has shown a good result in medication error reduction. Therefore, the hospital plans to implement this system in all units, and for all hospitals. Establishing regulated policies and strict protocols at Hamad Medical Corporation has shown a significant result in reducing the medication administration errors.

References


Improving the Pharmacy System in Order to Prevent Delayed Medication Administration by Farhat A. Rahim Malik

Introduction

The key to providing quality care is timely management. Any delay in comprehensive clinical services results in an overall delay in the patient’s recovery. Medications are the first line treatment for any disease. Before administering the medication to patient, there is a whole system which activates and works hand in hand to make medication available on time. Delayed medication can result from any discrepancies in the system.

At the moment, Qatar is facing this problem. There is a necessity to improve and modify the current pharmacy system. This can reduce the present workload and increase the workflow by introducing new trends.

Issues arising

There are several issues at present which are responsible for delayed medication administration.

One of the main issues is the route access for any medication administration. If the medication has to be administered only intravenously (IV), there may be no access available due to difficult intravenous cannula insertion. Another solution is invasive lines insertion for that IV medication but that takes time and this may not be possible. Sometimes there is route access but the medication is not available. It can be due to no unit stock of that medication or delayed delivery from pharmacy.

Ambiguous and late orders always result in delayed delivery from the pharmacy because clarification is required. Sometimes the prescription is sent late to the pharmacy due to workload. The shortage of pharmacy aides may further delay prescription delivery from the unit to pharmacy. The shortage of pharmacists, workload, and shift changing results in delayed entry of medication.
order in the computer system. There may also not be an entry of medications in the system which need repeat prescription.

Cooperation of the patient is another major issue. Sometimes the patient refuses medication administration while route access and medication are available. Some patients want the medication to be administered via an alternative route, but that medication can be given only through the prescribed route. More time is needed to convince the patient and this results in overall delay in patient care. Sometimes this delay worsens the patient’s condition further requiring treatment and management. Finally, it prolongs the hospital stay.

The focus of this paper is delayed medication delivery from the pharmacy. To provide optimal level of care, it is important to improve the pharmacy delivery system. By solving a number of factors related to delayed medication delivery, the patient condition can be managed effectively.

**Literature Review**

Miller (2002) addressed the advantages of Computerized Prescriber Order Entry (CPOE) in his article “Quality and Operations Improvement: Medication Turnaround Time”. CPOE served as an effective tool for reducing medication errors which ultimately prevented delayed medication administration. CPOE had resulted in shortened medication turnaround time. Miller (2002) also clarified in his article that the nurses had a wrong concept about CPOE. They expected that since it was taking no time to send prescriptions to the pharmacy through CPOE, they expected medications to be available in the unit in no time from the pharmacy.

The study included data from pre-CPOE and post-CPOE phases over a 4 week period in Ohio State University Medical Center. The study was conducted in a solid organ transplant unit. The environment was controlled by situating the study in the same unit. An observer was assigned to collect data and he recorded the time from the moment order was written until the nurses administered the medications.
The time was tracked as follows: first when the order was written, then how long the order remained in the unit, then when it arrived to the pharmacy, when it was entered in computer system by the pharmacists, then when medication was sent to the unit and finally, when it was administered to the patient.

Pre-CPOE phase: 6 hours average medication turnaround time.

Post-CPOE phase: approximately 2 hours medication turnaround time.

Study showed the reduction of 67%.

Delayed delivery of physician prescription to pharmacy resulted in the necessity of technology which could overcome this fault. CPOE made it feasible by completely eliminating the steps from writing paper prescriptions until it reaching to the pharmacy by wireless technology.

In a further study, it was proven that along with medication turnaround time, CPOE was equally effective for radiology turnaround time and counter signature process. Later on, allergy modification was also added in the CPOE system to avoid any further delay in system (Miller, 2002).

Tshannen, Talsma, Reinemeyer, Belt & Shoville (2011) conducted a study regarding strengths and weaknesses of CPOE in their article “Nursing Medication Administration and Workflow Using Computerized Physician Order Entry.”

CPOE had a great impact on reducing workload on nurses through various stages of medication orders, but it also had some negative impacts on nurses’ work. This article highlights strengths and weaknesses of CPOE.

The literature review in this study revealed that the major time spent by nurses during their shift was on medication related activities (26.9%). It revealed the need to implement a system to improve workflow related to medication activities through technology (CPOE).
The study showed that the time required for dispensing medication significantly reduced after CPOE implementation. “CPOE can ‘provide an infrastructure that supports improved patient safety, improved patient flows, and smoother patient care processes’” (Asaro & Boxerman, 2008, p. 908, in Tshannen et al, 2011, p. 402).

Lack of computer skills and decreased communication between doctors and nurses after implementation of CPOE had been noticed. The study was conducted to estimate the time related to medication activities and nurses’ perception towards CPOE implementation.

This was a quantitative and qualitative study. The selected units were adult medical ICU and one general pediatric unit. Medication Administration Time Study flow chart was utilized. Registered nurses (RNs) with experience ranged from less than 1 year to 24 years and were selected randomly. Verbal consent was obtained. An observer was assigned in both units. Both units’ nurses were interviewed too. Eighty six observations were completed from both units. There was total of 32 non continuous hours that nurses were observed and medication related activities were timed.

During an interview one nurse stated, “There is no required framework for when to check for orders, which is bad.” (Tshannen et al, 2011, p. 407). Another nurse stated, “It (CPOE) is detrimental to patient health. It is very impersonal with doctor and nurse interaction” (Tshannen et al, 2011, p. 407). Beside several negative comments some positive comments were stated too about CPOE including, “CPOE is better because you don’t have to flip through the chart to find an order. The orders are all in one place and they are organized by category and route.” (Tshannen et al, 2011, pp. 407-408).

The study had certain limitations as it was conducted only in two units and there was no set standard time for each step.

In short, where CPOE had been implemented, it had improved medication allocation process, and turned direct communication to indirect phase. Where CPOE had enabled nurses to
save their time from medication related activities, it had increased distance in clarifying and verifying orders.

Furthermore, Tshannen et al (2011) suggested the necessity to find out the related negative aspects of CPOE and sought solutions as early as possible to enhance its utilization.

Pantaleo and Talan (1998) emphasized consultation of pharmacists in their article “Applying the Performance Improvement Team Concept to the Medication Order Process”.

Pantaleo and Talan (1998) specified medicine departments and pharmacy must work as one team towards the implementation of effective drug dispensing system. Their study focused on improving education and the pharmacy system rather than blaming individual performance. The major cause of adverse drug events was found in the prescribing or ordering stage.

Problematic physician orders had resulted in the initiation of performance improvement team concept (PIT). The project consisted of two main factors:

- “Pharmacists’ consultations that identify and prevent potential drug-related problems
- Pharmacists’ interventions that identify and resolve actual drug-related problems”

(Pantaleo & Talan, 1998).

Jamaica Hospital Medical Center (JHMC) in Jamaica conducted this study over a 7-year tracking period. The project had several phases. In the measurement phase, a flow sheet was initially drawn up to involve the steps from physician order to dispensing of medication. Then it was applied and tracked for 7 years from 1989-1995. A total of 93% medication orders were corrected with pharmacist consultation during the project. PIT grouped the types of pharmacist intervention by category and drug class.
Studies showed that medication errors, adverse reactions, and delayed dispensing occurred because of errors during prescribing orders. Therefore, involvement of pharmacists during medical rounds and prescribing orders had nearly eliminated such errors.

PIT conducted a survey of the level of satisfaction by medical staff supervisors. One hundred percent agreed to the involvement of pharmacists during medical rounds. In short, JHMC PI has accepted and proved pharmacist value regarding medication related issues (Pantaleo & Talan, 1998).

**Discussion**

The first issue identified was ambiguous orders and late orders by doctors. Ambiguous orders and late orders cause medication errors, which further affect the whole dispensing system and result in delayed medication administration in Qatar and in JHMC as described by Pantaleo and Talan (1998). The prescribing or ordering stage can increase the medication error or it can prevent it. The whole system of dispensing that medication freezes until the correct order is obtained. JHMC in Jamaica had similar medication problems as HMC is facing at the moment.

On the other hand after prescribing, the issues responsible for delayed medication administration are similar to those pointed by Miller (2002).

The issues are as follows:

- shortage of pharmacy aides to bring prescription to pharmacy
- late prescription reached to pharmacy
- late prescription entered by pharmacist in the computer system or sometimes no medication entry
- shortage of pharmacist
- late medication dispensed by pharmacist to unit
- overall workload
- further related issues are incomplete handover during shift changing due to work load and shortage of staff.
Miller (2002) conducted the study to record the time required for each step from the moment order was written until medication was administered to the patient. It was found out that prescriptions remained in the unit over a long period of time. It resulted in the need of a wireless technology called Computerized Physician Order Entry (CPOE). It overcomes all above mentioned issues.

Although the importance and strengths of CPOE are proven, there are some weaknesses too. It has stopped direct communication between doctors and nurses. When paper prescriptions were in use, nurses were able to clarify ambiguous orders at the same time from doctors. But by using CPOE, nurses were not aware, when the order was written. Furthermore, it took long time for them to follow the doctors to verify the orders. Therefore, it is necessary to find the solution early for these weaknesses to enhance its utility.

**Conclusion**

Involvement of the pharmacists at the clinical level during prescribing stage has prevented further medication problems to occur. Jamaica Hospital Medical Center has highlighted clinical pharmacist’s role as resolving drug related problems.

Another solution for medication problems has been found in CPOE. It has decreased medication errors encountered by physician during prescribing stage. It has decreased nurse’s work by transcribing medications, sending prescriptions, and carrying medication folders. It has overcome the shortage of pharmacy aides and pharmacists and their workload.

**Recommendation**

The first recommendation which can be applied in short period is the necessity of clinical pharmacists. Their consultation and intervention at the prescribing stage can decrease medication turnaround time. After applying this short term goal, long term facilities of CPOE can be initiated in Qatar.

Head nurse can be spoken by nurses regarding frequently facing medication delivery problems. It can be suggested to her during unit meeting to ask for clinical pharmacists consultations.
in her next multidisciplinary meeting to solve and control this issue. Also the idea of CPOE can be added, which she can refer to Associate Director of Nurses (ADN). ADN can bring out this issue during her meeting with Director of Pharmacy.

Currently the prescribing stage is paper based, but after the prescription reaches the pharmacy, other pharmacy processes are technology based. Therefore, transition to CPOE can be completed in one year. Initially it can be trialed in one intensive care unit and one general unit for three months. Later, it can be applied in the whole hospital within one year.

Although the literature has specified some weaknesses of CPOE, they are less significant than its strengths. The necessity is to find the better solutions to its weaknesses during its application.

References


Preventing mismanagement during cardiopulmonary resuscitation by Azeeza Mohammed

Introduction

Cardiopulmonary resuscitation (CPR) is one of the most challenging situations faced by the medical staff. Speed and accuracy are very important factors during CPR and result in better management and best outcome of the sick patient, who experiences cardiac arrest. There are a lot of other issues which can affect a patient’s condition during this sensitive period. To achieve the best survival after cardiac arrest it is very important to know the factors that can delay or disorganize time. Cardiac arrest is a very stressful situation for the health care team, one of the most important reason to overcome this stress is collaboration during the critical situation between the staff and supporting each other, but being a human everybody can do mistakes so as medical staff it can be a result of a lot of reasons sometimes it can be from lack of knowledge or experience and a lot of other reasons. One of these reasons is mismanagement during CPR which is the topic I will argue about.

Issues

Reasons for mismanagement in CPR include: poor leadership skills; sometimes the leader will share his responsibility with another members which can result in the team having two leaders. Delegation of activities and poor decision making because of the role confusion result. Poor knowledge and experience of the leader makes him too weak to lead a team. The attitude of the care givers can impact negatively. If the member cannot tolerate the stress of the situation, they may start shouting at each other out of frustration. The family should always be respected, so there should be no personal talk or laughing between staff in front of the family. The staff education is an issue as if staff are not trained in CPR and certified with BLS, they can have poor knowledge about medications and it's risk, improper use of available resources for example the defibrillation staff are well trained how to deliver shock to a patient and poor CPR skill to perform CPR and less expertise with CPR equipments. Family interference may occur if they are not ready to accept that the loved
one is at risk and between life and death. Sometimes some of the staff will pay more attention to some families related to social status, nationality or religion which also can affect on patient care. Staffing is also a risk factor especially when the nurses in the intensive care units handle 2:1 cases instead of 1:1 because of the shortage of staffing. New staffs that are not familiar with the environment can also cause some confusion. Communication can be a barrier especially when staffs are talking different languages and there is no clear order from the leader. The personal relationships and the difference in experience because of different nationalities, different training background and no previous experience, or lack of familiarity with hospital policies can negatively impact the management of CPR. Senior nurse and junior nurse incorporation also can be a factor; seniors will not accept any comment from the junior nurses the seniors like to force the juniors to do what they like to do in their way. Physician and nurse conflict can ends with bad treatment of the doctors to the nurses in the critical situation. The documentation, which has frequent repetition of its self that might take more concentration of the staff about it for example the assign nurse has to fill the code sheet, critical flow sheet and nurses notes all the time the same information, but according to the policy these three places it has to be written. Although she has to help in the CPR.

Also staff should be skillful about the hand positioning for chest compression, how to check the pulse, how to give rescue breathing and how to give shock. All these things if the staff will know they will have enough confidence to stand in any CPR case and also will achieve better outcome. It needs from each one himself to work hard to be capable to stand in this life threatening situation with the use of the available resources. According to the lack of education and skills is the focus of this paper

**Literature Review**

Marzooqu & Lyneham (2009), in the article "Cardiopulmonary resuscitation knowledge among nurses working in Bahrain", shared the result of this research to find out the knowledge of nurses regarding Cardiopulmonary resuscitation (CPR) and to identify barriers to appropriate CPR
evaluation in Bahrain. A questionnaire was distributed among the staff and the reply was on this questionnaire from the staff too different from each other. It is believed that CPR can be life saving as long as it is given by well trained staff. In the hospital, the first person who usually discovers the arrest is the nurse, therefore the nurse should have proper training, knowledge and skills to respond to any event like loss of consciousness, stopping breathing or absence of pulse. They should be able to respond quickly, effectively start CPR and continue until the rest of the medical team arrives. The purpose of this study was to assess the knowledge of nurses about CPR in Bahrain and the factors that might be related to retention of information on CPR. In conclusion, the result showed that the nurses have low theoretical knowledge about CPR, because of the lack of proper updating of CPR guidelines. The authors found that the nurses who attended the post qualification training in resuscitation where skillful and confident. "Western resuscitation research has moved forward where as in Bahrain there is still a need to establish the necessity of continuing education in CPR" (Marzooqu & Lyneham, 2009, p.298.) They recommended: further studies to identify factors which can affect CPR knowledge, standardization of CPR guidelines to keep nurses up to date by using different education methods (audiovisual and demonstration); annual CPR recertification; and critical thinking and problem solving skills which will help the nurses to respond quickly in stressful situations.

The knowledge of nurses about CPR has been discussed by Hamilton (2005). in the article, "A literature review regarding the nurse's knowledge & skills retention following CPR training". The aim of this review was to identify the factors that might help the nurse's knowledge retention and skills during CPR training and also to provide better idea for future training to achieve a better survival for the victims of cardiac arrest. The method used in this study was a literature review. In some papers it was discovered that deterioration in CPR skill is faster than its knowledge because the skill they are practicing in the skill labs can be forgotten faster than the knowledge gained by them when they studied for the exam. The study focused on the review of the current guidelines at the time issued by either American Heart Association (AHA) in 2000 or European Resuscitation
Council. The discussion focused on which teaching method is the best in helping nursing staff to retain knowledge about the CPR algorithm. Video self instruction, (where there is a video guiding the staff to know the proper CPR sequence). Other teaching methods included instructor led where by training by the American Red Cross and practice on manikins was used. A lot of other methods were also discussed, in this review like peer tuition (group discussion), traditional lectures and cardiac arrest simulation. It was clear that with cardiac arrest simulation, the staff were confident and knowledgeable about the proper sequence of CPR skills. In conclusion, the nurse should receive resuscitation training depending on their clinical areas and roles, that should be based on real hospital scenarios and reflect current evidence based guidelines. Staff should be scheduled for annual CPR mandatory classes as part of their job description. More research is needed to assess the efficacy of the best method which can be used for the nursing staff to obtain the best knowledge and CPR skill retention.

The importance of teamwork during CPR was evaluated by Meerabeau & Page (1999) in the article of "I'm sorry I panicked you: Nurses accounts of team work in Cardiopulmonary resuscitation". They explained that teamwork should be "a cooperative group in that they are called into being perform a task that can be performed by individual" (Meerabeau & Page, 1999, p, 29). The principle of team work is to understand and acknowledge each other's job and work together. A team leader is required. Teamwork always has some rules like knowing each other well, knowing how to work with each other and knowing the roles and the responsibility of each other in order to finish the task assigned. Healthcare teams are one of the most critical teams when they gather for a stressful situation like cardiac arrest. To achieve the best outcome, all members should collaborate in an assertive manner. Some of the features that support the outcome of the best team are: flexible communication, maintain balance and democracy by the leader, clear role for each member, no personal interference, a common purpose and respect for each others' expertise. Doctors and nurses may be having interpersonal conflict, but it should be discarded when there is an emergency situation like arrest. Everyone should perform their own role very effectively in order to save the
patient's life. The problem sometimes is when senior nurses are guiding junior doctors who are inexperienced as this can lead to confusion during the situation (Meerabeau & Page, 1999). In conclusion; the most important issue addressed was that the leader should always be calm to control the overall stressful situation. It also showed varies from the practice of CPR and a real case of cardiac arrest in the practice you will learn only the information and the sequence of practice which required for any CPR, but in the real situation every patient is different than other, so every case can be faced with new complications. To have the best outcome, the team always maintains goals of the teamwork including: sharing the same purpose, having a meaningful task for all the team, role clarification and no interference for personal issues. Everyone can depend on the other one to complete the task and the leader is always the expert.

Discussion

As it is mentioned by Marzooqu & Lyneham (2009) the first person who discovers the arrest is usually the nurse. Therefore it is very important for the nurses to be knowledgeable, skillful and competent in order to prevent mismanagement during CPR. Emergency medications which are used in CPR should be by hearted by all the caregivers who are involved in resuscitation including the proper use, the route, the side effect and the possible complications, so there will no delay in administrating any medication needed by the patient. In Qatar, the resources provided by the government are very good quality and very helpful for the patient care, sometimes there is a lack of the trained staff to use it, so all nurses who work in ICU, operation theaters (OR), and emergency departments (ED) should be well trained to use the equipments. Hamilton, (2005), discovered that deterioration in skill is faster than knowledge in somehow it is true because the skills can be forgotten not like the knowledge which you studied for the exam, there for training should be given
for the staff by frequent classes which can remembered by the staff easily, it should be provided for all the staff without exceptions to promote a better outcome. Skills like airway opening, mask valve ventilation, pulse checking and chest compression all staff are required to be competent for the safety of the patient. Advance cardiac life support (ACLS) should be one of the criteria for new staff in places like ICU, OR and ED. All these places need certified people who are conscious about what ever can happen around them. Annually recertification for basic life support (BLS) courses and ACLS recertification every three years are the standard in Qatar. Some of the departments are involved in the mock codes where a team of CPR members will come unknowingly and give the staff a situation of cardiac arrest. They will practice CPR on the manikins and apply the knowledge they learned into practice. Meerabeau & Page (1999), mentioned the importance of teamwork during CPR. The spirit of teamwork should always be available while working with other team members during CPR to maintain better cooperation and to achieve the goal of saving the patient. Being calm, not panicking are the best solutions to keep the surroundings under control. The role of the leader is to promote the spirit of teamwork by avoiding personal interference and completing the work by giving clear instructions to all team members in order to achieve the best outcome for the patient.

Conclusion

Based on the literature review and discussion, it is reasonable to conclude that CPR is a stressful situation. Confidence and competence based on the knowledge and skills are very important to avoid the mismanagement during CPR. Staffs need to practice until they are expert at it. Attending the mock codes, CPR classes and annual BLS recertification is important for updating the knowledge and putting it into practice. Getting updated with the latest algorithms is also helpful in maintaining the knowledge base. Critical factors are having the spirit of teamwork, as situations like arrest will be very stressful, but if the group works together, keeping personal issues aside and concentrates on each expertise roles will be more effective CPR.

Recommendation
Staff in a situation like cardiac arrest should be very confident and have strong knowledge and skills to perform CPR. To maintain this proper education for the staff is required. Annual recertification of BLS and recertification of ACLS every three years should continue and mock codes should be practiced in all the departments especially ICU, OR and ED not only some to share the knowledge, face the surprises like cardiac arrest and practice the skills. Making mistakes on the manikins is better than making them on patient and everybody can learn from each other's mistakes and avoid them in the future. To keep the knowledge up to date, new guidelines need to be reviewed and let staff to practice it. The equipment and the resources which available in the department all the staff should be well trained how to use them, so when emergency situation appears no one will be panic or hesitated to use them. Teamwork and professional attitude between CPR members and role clarification makes the work easy during CPR also the leader should be very strong character, knowledgeable, skillful, expert and patient to maintained the calm environment and control the surrounding people by giving clear instructions and distinguishing the role of each member practicing in the CPR management which will maintain a better outcome and best result for the patient. The leader also should maintain these characters by attending proper classes of CPR to keep his knowledge up to date and to learn on all the new equipment which can be used. Also leadership skills should be trained by the leader to achieve better control on the team members.

References


The Impact of Poor Performance on the Quality of Care and Patient Safety by Hala Mohammed

Introduction

Quality of patient care and safety can be affected by several factors. The mission of any health care organization or hospital is to provide the optimum quality of care to patients in their different age groups and variable conditions. The responsibility is to ensure that all employees follow this mission. However, nurses play a major role in the delivery of the highest health care services. Although nurses encounter many obstacles, which result from many reasons and affect provided care and safety and the quality of nurses working life, nurses still continue performing their role. In this paper, the impact of poor performance due to nurses' workload on the quality of patient care and safety will be discussed.

Issues

Many issues contribute to the relationship between nurses' poor performance and patients care and safety. First, difficult autocratic managers can affect nurses' performance. Second, strict policies and protocols may not enhance patient care and use of new technology. Third, low nursing qualifications due to poor verification system especially those from different countries and languages. Fourth, ineffective communication and poor in-service education and activities do not keep the nurses current and informed. That is due to shortage of staff as well as shortage of clinical instructors, repeated topics and lack of advanced educational materials. In addition, the lectures end in the class with no clinical practice. Finally, workload which is related to shortage of staff, handling many patient (stable and unstable) and performing non-nursing tasks.

The issue of workload will be the area of focus in this paper. Workload is a significant cause of poor performance and can result in low quality and improper services delivered to the patient and that might affect patients' safety. So, workload will be discussed from different aspects and how it can affect both nurses' performance and quality of care and safety.
Literature Review

The following literature review correlates to the impact of poor performance due to workload on patient care and safety.

Gurses et al (2009), reported on the "Impact of Performance Obstacles on Intensive Care Nurses' Workload, Perceived Quality and Safety of Care, and Quality of Working Life". This study was a cross-sectional design; and data were collected via structured questionnaire from 265 nurses in 17 intensive care units of seven hospitals within 6 months of 2004. The inclusion criteria were: being a staff nurse, having been assigned on ICU level patient, and completing the questionnaire during the two and a half hours before the end of the shift. (Gurses et al, 2009).

Approval from the Human Subjects Committee was obtained for all involved institutions (Gurses et al, 2009). The authors used different methods to announce the study, such as e-mails or memos from nurse managers, during nurses unit meeting, and meeting with ICU representatives. Participation was voluntary. The first author was able to clarify the participants' questions. The questionnaire was designed to measure performance obstacles, workload, perceived quality and safety of care and quality of working life as well as the demographic and background variables (Gurses et al, 2009). Questionnaire reliability was assessed by Cronbach's alpha. The response rate for the study was 80 percent.

The study includes some issues correlated to the main points, for example dealing with many family related issues, disorganized supply area, handling two patients, working on day shift, fatigue and stress.

The authors found that "workload mediated the impact of performance obstacles with exception of equipment-related issues on perceived quality and safety of care as well as quality of working life"(Gurses et al, 2009, p.439).
Further on the issue of patient safety and well-being, Al-Kandari, and Tomas, (2008) reported on "Perceived adverse patient outcomes correlated to nurses workload in medical and surgical wards of selected hospitals in Kuwait".

The study design was a cross-sectional survey and data was collected via a self administered questionnaire from 780 registered nurses; 417 nurses in medical and 343 nurses in surgical wards, and 20 floaters who covered the shortage in medical, surgical wards during the study period. The study was conducted in five hospitals under the Ministry of Health in Kuwait. The questionnaire consisted of three sections (Al-Kandari & Thomas, 2008). Section A: demographical data, place of work, specialty and experience, Section B: workload; sixteen questions about the shift worked by the respondent nurse, unit bed capacity, nurses-patient load, number of unstable patients and nursing and non-nursing activities and Section C: related to perceived adverse patient outcomes and twelve questions were asked (Al-Kandari & Thomas, 2008). In addition nurses were given a list of adverse events and were asked to indicate if any events had occurred with their patients (Al-Kandari & Thomas, 2008). Section B and section C of the questionnaire were partially adopted for International Hospital Outcomes Consortium (Al-Kandari & Thomas, 2008). As the majority of the nurses are not native English speakers, the questions were modified to a grade eight level after permission was obtained from the authors.

A pilot study was conducted before the actual study to examine the reliability and validity of the tool and to evaluate the nurses' ability to understand the language. The pilot study includes 24 nurses from a medical ward and 30 nurses from a surgical ward of one general hospital and later both wards were excluded from the actual study. Nurses gave additional information and the questionnaire was re-modified and retested after 4 weeks with the same group. (Al-Kandari & Thomas, 2008).
The questionnaire were distributed, followed up and collected by research assistants. Confidentiality was maintained. Permission was obtained from the Ministry of Health after the revision by the research committee of the Public Authority for Applied Education and Training.

The authors found that due to increase in nursing workload complaints from patients and families, increased and patients received a late dose or missed a dose and occurrence of pressure ulcer increased as well.

Another study by Kiekkas et al (2008), reported about the, "Association between Nursing Workload and Mortality of Intensive Care Unit Patients". It was an observational, prospective study. It included patients who were admitted consecutively in the medical-surgical ICU of a Greek hospital over one year. Data collected and recorded included: age, gender, type of admission, duration of mechanical ventilation, ICU length of stay and mortality during ICU stay for all patients (Kiekkas et al, 2008). Patient care demands was measured by using "Therapeutic Intervention Scoring System (TISS-28), done by two of the researchers" (Kiekkas et al, 2008, p.385). "Daily sum of TISS-28 of patients and daily number of nurses were considered for estimating median and peak patient exposure to nursing workload" (Kiekkas et al, 2008, p.385).

Patients were divided into three groups (Low, Medium, and Peak) according to the values of median and peak patient exposure to nursing workload (Kiekkas et al, 2008). The associations between mortality during ICU length of stay and median or peak patient exposure to nursing workload was evaluated using logistic regression, after adjusting patients' clinical severity. For those patients who were readmitted to ICU during the study period, first admission was only considered.

To conduct the study, permission was obtained by nursing agency and hospital ethical committee. Nurses were informed about the purpose and the method of the study, and verbal consent was received from participants was not transferred to or discussed with other medical and nursing staff.
The authors found differences in ICU mortality between high and low group of median and peak patient exposure to nursing workload were clinically remarkable.

Discussion

From the previous literatures three thesis studies were followed to support the issue of the impact of poor nurses' performance on quality of patient care and safety. Gurses, Carayon and Wall their study showed that workload is a multidimensional concept that goes beyond patients' clinical conditions and nurse/ patient ratio and includes work system. More specific, work system characteristics (performance obstacles) were significantly correlated with workload. That is clear when dealing with many family related issues (e.g. many phone calls for nurses from patients' family and no policy or system on how to deal with that), poorly stocked patient room and unclear information physician (Gurses et al, 2009).

On the other hand, authors of a study done in Kuwait, identified factors that contributed to the occurrence of adverse patient outcomes related to workload (Al-Kandari & Thomas, 2008). They also explored how that affects patient safety. Among medical and surgical nurses, there was an agreement regarding the perceived adverse events, which affects patient care and safety. That was evidenced by performing non-nursing tasks such as delivering and retrieving of food trays, receiving late or missed dose and assigning stable and unstable patients to one nurse (Al-Kandari & Thomas, 2008).

Furthermore in the same issue, Kiekkas et al (2008), in this paper examined how nursing workload can be associated with mortality of intensive care unit patients. In their study they concluded that nurses assigned to a patient was based on the staff shortage rather than the patient condition acuity (Kiekkas et al, 2008). That was evidenced by the obvious increase in mortality in those patients who were exposed to high level of nursing workload (Kiekkas et al, 2008).
All three studies focused on improving the outcomes of nursing workload as well as the quality of care and safety. Although they were conducted in different countries, they shared similar issues to Qatar. Both studies "Impact of performance obstacles on intensive care nurses' workload, perceived quality and safety, and quality of working life" and "Perceived adverse patient outcomes correlated to nurses' workload in medical and surgical wards of selected hospitals in Kuwait" can be applied in Qatar because they have high compatibility and can be feasible to follow their recommendations, specially that one done in Kuwait because they have the same culture and background. However, the third study that focusing on the mortality in ICU due to workload is not reflecting any similarity in Qatar, but still the solutions and recommendation can be used with some modification.

Conclusions

In conclusion, workload is mediating nurses' poor performance and the quality of patient care and safety and affecting them negatively. Nurses play vital role in the health care system and patients are at the center of care for any health organization, so both have to be considered as important domains. From the studies discussed, some solutions were presented. While nurses' shortage became a regional and global problem suggestion to increase the number of nurses will be excluded. Eliminating the performance obstacles and redesigning the work system characteristics is one of the best solutions (Gurses et al, 2009). Also it could be useful medication errors (Kandari & Thomas, 2008). Another good solution is to expose patient especially in ICU to low levels of nursing workload and considering patient acuity when distributing the assignment.

Recommendations

The studies recommended that nurse managers can set quality care indicators to reduce the adverse events (Kandari & Thomas, 2008, p.589). Based on field observation, policies modification
can facilitate the system especially those regarding none-nursing tasks to reduce the load on nurses. As experienced creating positions or hiring supportive staff in order to help registered nurse to concentrate in their nursing tasks and activities. For example, hiring more clerks, or nursing aide to transport the patients and patient care assistant to accompany patient during the intra-hospital transfer. In Qatar it is possible to implement these solutions and to consider the recommendations because the yare feasible and can easily match the system. In addition, Qatar is a country seeking the developed health care system, so nursing leaders have to support the implementation of these finding.

**References**


Measure to reduce the ineffective operating room utilization by Ifrah Mohmoud

Introduction

Extensive operating room (OR) utilization is a goal of operating room directors and hospital administrators. In addition, OR utilization is increasingly important in hospitals in general. Unexpected OR cancellation are major causes of suboptimal OR utilization. Utilization is the science and art of how to run and manage an Operating Room Suite. The main focus of operational room management is to maximize the number and the quality of surgical cases that can be done during the day while reducing the required resources and cost. The cancellation of cases in day surgery lead to delayed patient care. Criteria needed for the proper management to avoid the problem need to be considered. This topic is important because the goal is to achieve operating room 100% utilization by the nature, effects of exploring unexpected cancellation and best measures to avoid it.

Issues

The increase of surgical case cancellations are related to many factors including patient no show; patient not fasting; patient coming late; patient with medical condition and patient with abnormal blood work therefore needs more investigation. While the other reasons may lead to surgical case cancellations are patients arrived late, but some surgeons accept late patient’s reason and precede with surgery this regulation may impact on the case cancellation. Assessment in the day of surgery also occurs. Some cases are minor and there is no need for the patient to get admitted preoperatively and if this is the first case of the day it takes time and decreases the utilization. Finally, the surgeon may arrive late because of personal reasons or he might be sick.

Literature review

out methods to reduce the cancellation rate, to provide an understanding of the causes that affect
the operating room efficiency, provide detailed data about the variation in case cancellation and
provide feedback to recommend action and improvement needed.

The study was a qualitative and quantitative analysis of the survey. During 2006 surgical case
cancellation data was collected from 123 Veteran medical centers with 120 (97.6%) facilities
providing complete data. Veteran health information systems and technology provided the
information for the surgical case cancellation reports. (Joshua et al, 2009).

The statistical rate of surgical case cancellation in the Veterans health system during 2006
was 12.4%. Comprisable study in the United Kingdom showed 14% slight difference. To facilitate the
improvement in cancellation rates, the authors recommend the following: a list of the reasons of
cancellation, for example; patient factor; patient medical change; surgeon and anaesthesia factor.
The main deficit in the patient factor included no show at high rate of 36%. To avoid this problem,
the patient should go through the preoperative clinic for examination and receipt of instruction
explaining the process the patient can follow to avoid the cancellation. The acute change in medical
condition of a patient prior to the surgery was considered the second cause of cancellation, with a
rate of 28%. Some patients have many disease complications and poor health status related to the
underlining disease. Preoperative assessment should be done by the anaesthesiologist in order to
determine if the patient is fit for surgery, and if not fit, to schedule an appointment. Surgeon and
anaesthesia factors were reported as the lowest reason of cancellation with a rate of 1%. This issue
can be avoided by proper communication between the surgical team and preoperative clinic. In the
preoperative clinic the patient will be notified of the exact date of the appointment and treatment
plan.

In the study by Yoon et al (2009) “Effect of increasing operating room capacity on the day
of surgery”, the first aim was to identify whether the increased number of operating rooms may lead
to decrease rates of surgical case cancellation. They also identified the causes of the cancellation
which were divided into six categories: abnormal lab result; patient denial; over booking of surgical case; ward overflow by huge numbers of admission; scheduling date error and unavailability of surgeon.

A quantitative analysis was used. The study was completed in a 600 bed university hospital with ten operating rooms, seven anaesthesiologists, nine resident anaesthesiologist and 15 anaesthesia physician assistance (mostly register nurses). (Yoon et al 2009).

Prior to the increase the number of operation rooms, the main reason of cancellation was over-booking with a rate of 157% patients. The second reason was the departmental issues with a rate of 144% patients, followed by patient medical problems with rate of 127% patients. According to the statistics the rates of cancellations remain high, despite the number of operating room capacity. The rate of cancellations related to the ward overflow increased due to the limited number of bed in the word. These results indicate that increase in operating room capacity can cause other issues and may not be appropriate or the final option to reduce the cancellation rate. However, optimizing operating room schedule can ensure patient smooth operation which comply with OR demands.

Knox et al (2009), reported on “The Impact of pre-operative assessment clinics on elective surgical case cancellations”. The first aim was to determine whether a preoperative assessment clinic would decrease the surgical case cancellations. The second was to provide understanding of the major role of the clinic. The third was to identify the impact of preoperative assessment clinic in avoidable cancellation.

The study was based in quantitative analysis. Knox et al (2009) performed a retrospective analysis of the elective surgical procedure over period of two year in total; one year prior to and one year subsequent to the establishment of the clinic (control group, January 2002 to
December 2002; study group, July 2003 to June 2004). Hospital patient enquiry data, theatre list, admission records and patient charts were reviewed.

The major role of the preoperative clinic was to identify the patients who are at risk of cancellation due to many causes including: patient reasons, medical reasons, and hospital reasons. According to the result of the study there was 12.7% increase in the number of elective surgical adult procedure performed after establishing the preoperative clinic. The clinic made great reduction in the cancellation mostly relating to patient reasons with a rate of 20. Before the operation date the patient reported to the clinic so that complete laboratory test will done as well as in assessment by the anaesthesia doctor. The patient received instruction paper explaining the requirement needed before the operation date. In addition, there was significant change related to hospital reasons for example; no bed; emergency workload and no intensive care bed with a rate of 41 comparing to 132 cancellations. Finally, the preoperative assessment clinic has shown a great contribution in assuring patient safety and satisfaction as well as decrease the rate of surgical case cancellation.

Discussion:

The results of the three studies demonstrate the overall main causes of elective surgical case cancellation as well as ineffective utilization in operation theatre. In the first study “Elective surgical case cancellation in Veterans health system identifying area for improvement” the section provides a brief discussion of the causes of surgical case cancellation and identified methods to reduce the cancellation rate; causes which affect the operation room efficiency where also explored with the consideration of preoperative assessment clinic as the best solution.

The patient will have notification about the exact date of the appointment and treatment plan and assessed to ensure he/she will be in best condition for the surgery. The third study “The Impact of pre-operative assessment clinics on elective surgical case cancellations” supported the
idea of the first study and introduced brief discussion about the impact of preoperative assessment clinic in elective surgical case cancellation. The major role of a preoperative clinic is to identify the patient at risk for cancellation due to patient reasons; medical reasons and hospital reasons. The implementation of a preoperative assessment clinic made great reduction in cancellation rate mostly related to patient reasons. In the second study “Effect of increasing operating room capacity on the day of surgery”, the author supported the idea of increasing operating room capacity which may reduce the rate of surgical case cancellation. Although during the discussion the authors consider increasing operating room capacity it is not final solution and may lead to other issues such as: increase cancellation rate caused by ward overflow and limited number of bed.

**Conclusion**

General conclusion can be drawn from the three studies that surgical case cancellation and operating room utilization are increasingly important to the hospital. Interventions that decrease cancellations are caused by the patient factor, patient medical reason, surgeon and anaesthesia reason and ward overflow. Preoperative assessment clinic had shown remarkable contribution in reducing patient noncompliance with hospital visit and requirements needed to perform the surgical procedure.

**Recommendation**

Based on the evidence the best method to decrease the surgical case cancellation and improve operating room utilization is to establish preoperative assessment clinic in Qatar. Increasing the awareness of how surgical case cancellation is inefficient and costly to the hospital will help to improve the system. In the short term goals nurses role need to initiate meeting with all multidisciplinary team including the chief of surgeons; administration; head of anaesthesia department; quality management section and infection control team. The main concept will be focussing on how to establish the preoperative assessment clinic and after that regular meetings will be held to discuss the goal, implementation of the project. In the long term, research must be
initiated to clarify the challenges that may face the project and provide education based in the result of the data collection to all multidisciplinary team. In the future, Qatar can establish education program to train the nurses to be specialized in the preoperative assessment clinic in order to provide education for all health care system and maintain 100% operating room utilization.

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The relationship between shortage of Qatari nurses and work environment by Fatma Mohammed Naji

Introduction

This paper is about the shortage of Qatari nurses in Qatar, as it’s an important global issue that affects on today’s health care system as well as the quality of nursing care being delivered to our patients. The local statistics of the health care system show a low percentage in the nurses, and the national supply of Qatari nurses cannot meet the demand. The reasons for this shortage may relate to many factors: culture & beliefs of family and community, and work related conditions. Culture & beliefs related factors include the traditional restriction for females to work with males in an open environment and family refusal on lack of encouragement to study nursing as they considered nursing as “un-rewarding career”. Community related conditions like few academic institutions. Only one university in Qatar can teach nursing; others were closed because of less number of graduated students per year. Lack of both awareness’s the important role of the Qatari nurses in the community and the government support toward this profession with a few national health campaigns for attracting more students.

The work related conditions that could be a main factor in leaving this profession include work load – (Qatari nurses prefer to work in light environment rather than clinical), no support from nursing leaders for training & development that required for their professional growth. In addition there is no career future plan set by the nursing leaders. Many international studies have been conducted recently, and the shortage in nursing manpower has been addressed by most of the international health care centers. They found the nurses are leaving this profession for many reasons such as; job dissatisfaction and unhealthy work environment. This paper is going to raise the nursing shortage as a critical issue which needs to be explored. The focus will be on the work related conditions in order to find the best practice.
The review of literature found a limited number of researches about nurses who decided to leave this profession in spite leads to significant shortages in the nursing workforce. A review of literature revealed some reasons why nurses leave clinical practice, which affects the quality of nursing care in our current health care system and work related factors.

Mackusick & Minick (2010) discussed the nursing shortage and the reasons behind it, focusing specifically on why nurses are leaving the profession. It is a qualitative study on nursing attrition conducted in the United States. The purpose of this study was to identify the factors that could influence the nursing shortage, and to answer the study question: “Why are the nurses leaving?.” It was a descriptive correlated study conducted among the registered nurses (RNs), who decided to leave the nursing practice within the first three years of clinical practice. One hundred and eighty seven RNs participated in this study through interviews, and the results were categorized in three main themes: unfriendly workplace, fatigue & exhaustion, and the emotional distress related to patient care. The theme of unfriendly workplace had been reported by all of the participants in this study and was evidenced by lack of support by other RNs, and verbal or physical abuse from managers or other health care providers. Most of the study participants believed that lack of support in their work place led them to leave clinical practice, and while they expressed guilt about not working clinically, no one was willing to return to this profession.

“Nurses’ intention to leave the profession: Integrative review” by Flinkmam, Leino-kilpi & Salantera (2010) analyzed thirty one studies using a longitudinal design NEXT (Nurses Early Exit). It was conducted in ten European countries. The aim was to review, and critique the published empirical research on nurses’ intention to leave the profession, as well as to synthesize the findings across studies. An integrative literature review was conducted using Cooper’s five-stage methodology that provided a framework for data collection, analysis, and synthesis. The data sources were obtained from an initial search of MEDLINE, CINAHL, and PsycINFO computerized database for the period from 1995 to July 2009 (Flinkmam, Leino-kilpi & Salantera 2010). The
participants were registered nurses with different educational backgrounds, and most of the participants were female. In this study, different kinds of instruments and scales were used to measure nurses’ intention to leave the profession, and the most widely used were the NEXT-questionnaires. They concluded there are three main reasons for leaving nursing profession: first, the search for better work (31%), second, better living conditions (28%), and the third was career improvement (11%). The most vulnerable groups for shorter tenure in the profession are younger nurses who are highly qualified. The authors agreed that the first year of a nursing career can be especially demanding and stressful (Flinkmam, Leino-kilpi & Salantera, 2010).

Buerhaus, Donelan, Ulrich, Norman & Dittus (2005) addressed the nursing shortage in their article “Is the shortage of hospital registered nurses getting better or worse? Findings from two recent national surveys of RNs.” They shared the results of two surveys, one conducted in 2002, and the other in 2004, about the nurses’ perception of the workforce shortage, effects on practice, causes, and solutions. The aim of this quantitative study was to review the findings of the two surveys in order to learn more about the nursing shortage from the perspective of nurses and the impact of the shortage on the work environment and their career plans (Buerhaus et al, 2005). More than seven thousands RNs randomly selected from a list of all RNs licensed in the United States were invited to participate in the surveys, and the data was collected by using NurseWeek and the American Organization of the Nurse Executives (AONE) questionnaires, to explore more areas as well as aspects of the work place environment (Buerhaus et al, 2005). RNs in both surveys were asked about their views concerning the main reasons for the nursing shortage. In 2004, 41% of the RNs identified the salary and benefits as a main reason for the nurses’ shortage, and in the same year, 44% of the RNs perceived more career opportunities for women, undesirable hours, and negative work environment. In the 2004 survey, more than one quarter of the RNs considered the nursing profession as “un rewarding career” as main reason for the shortage. The authors stated that the nursing shortage may be getting better in some ways; nevertheless, it has negatively affected the overall hospital performance in terms of patient safety and quality of patient care (Buerhaus et al,
In 2002 survey, the response of RNs was 29% for negative perception of the health care work environment, 58% for salaries and benefits, and fewer applicants admitted to nursing schools.

**Discussions**

No literature was found about the nursing shortage in the Arab Gulf area, and specifically in Qatar. Based on the findings of literature review, the theme of work related factors appears to cause RNs to leave nursing as supported by Mackusick & Minick (2010). The study results proved poor working conditions have negatively impacted on the nurses’ satisfaction, and driving many nurses to leave this profession. Flinkmam, Leino-kilpi & Salantera (2010) found the shortage of nurses, in combination with an increased workload, poses a potential threat to the quality of care as well as nurses’ intention to leave the profession. In this integrative review, a number of variable factors had been identified. One of these variables was work-related conditions. According to Flinkmam, Leino-kilpi & Salantera (2010), the intention to leave the profession can start as a withdrawal process: nurses may first leave the ward, then the organization, and finally leave the profession.

The extensive study of Buerhaus et al (2005), supported that the work environment was a leading cause for leaving the nursing profession. In this study, most of participants agreed the nurses’ shortage impacted on nurses, patients, and hospital. The study participants believed they had to leave the nursing practice due to the lack of support in the workplace environment. The participants requested the hospital initiate various strategies to retain nurses by improving the work environment,

Nurses’ intention to leave the nursing profession has mainly been studied using quantitative descriptive studies and with survey questionnaires, but the quality of the studies varies considerably. There was no consistent definition used for leaving in the studied reviewed. The majority of the studies used questionnaires as a measurement tool; therefore there was little chance for the nurses to explain in their words the reasons of leaving this profession. Nursing leaders need a full
understanding of the reasons RNs leave this profession to enable the implementation of effective strategies to retain the current staff?

Conclusion

In summary, the nursing shortage is a major problem affecting the performance & outcomes of health care and compromises the patient safety. Based on the findings of literature review, a clear link between the nursing shortage and the work environment was identified; however the current situation of nursing shortage differ between the United States and Qatar. Hamad Medical Corporation (HMC) in Qatar is a multicultural organization concerned about the shortage of RNs; however the organizational strategy is not growing fast enough to meet the projected demand for RNs. HMC strategy still focusing on the recruitment process of non-Qatari to cover the RNs shortage rather than solving the reasons of leaving this profession.

Recommendations

Today, the nursing shortage is a huge challenge for any health care organization. It affects the quality of service and the performance of the health care system. Understanding the relationship between the nursing shortage in Qatar and the work environment requires a specific research. As the health care system in Qatar is looking for recognition and excellence as a world health care center, more efforts are required from the nursing leaders toward finding the best practice for this issue. This will improve the patient outcomes.

Overall, there is evidence about improving the work environment to maintain on the work force. This recommendation can be implemented in HMC through the development of training programs for the nursing leaders. In this paper, the recommendations are: further research to develop in depth understanding of this complex issue. The reasons nurses are leaving the profession in Qatar need to be revealed in order to establish and implement an effective strategy to maintain staff retention. Formulating a Qatari nurses association may enhance the nursing profession in Qatar and can be considered as a reliable source of data about the nursing work force in Qatar. HMC can
establish programs for recent new graduates, paid or sponsored nurses for continuing education, improve work performance assessment, and increase nurses recognition events. Also it is recommended to develop a strategic plan to ensure that the supply of nurses meets the demands. With these efforts the patient’s care will improve and nurses will find their job more satisfying.

References


Possible solutions to decrease the rate of permanent catheter infection in end stage renal failure patients by Khulood Nasser

Introduction

Patients with end stage renal failure (ESRF) need to do continuous renal replacement treatment by dialysis. There are two types of dialysis, peritoneal dialysis and hemodialysis. In hemodialysis, patients must have vascular access by creation of the Arterial – Venus fistula (AVF) or Arterial – Venus graft (AVG) which provides the best vascular access. Initially, the patient might have been dialysed via temporary access ports which are femoral line or jugular line. Then a permanent catheter would be inserted into the main blood stream in the sub clavicle area. The catheter should not be in place for a long time, only until AVF or AVG would be created. Catheters play an important role in the patient undergoing hemodialysis; but permanent catheters should be considered a bridge to more permanent forms of dialysis access in most patients. However, the rate of usage for permanent catheter has increased and also, the permanent catheter infection’s rate has increased. Catheter infection is a major cause of morbidity and mortality in ESRF patients. Therefore, it is important to know if there are any possible ways or practices to decrease the rate of catheter infection.

In this paper, some of the issues in Qatar that have arisen related to this problem will be identified. Second, some possible solutions from the literature will be explored. The findings from the articles and the issues will be linked in the discussion and then, concluded with emphasis on the importance of decreasing the rate of the infection by following the solutions from the studies. Finally, some recommendations will be provided.

Issues

There are lots of issues that have arisen related to the increasing rate of permanent catheter infection. Some of these issues are classified according to who might be responsible for that catheter infection, the patients, the hospital’s protocols, the staff (nurses), or the vascular problem (poor flow from the perm catheter). The issues that have arisen because of the patients are: bedridden patients
need total assistance in daily living activity and often no caregiver at home to take proper care of them. Patients lack of the knowledge about catheter care especially while taking bath related to language barrier, no effective health education to the patients from the nurses about it, or low level of patients' education. All that might lead to wet, dirty dressing on the catheter or an exposed catheter without dressing which cause infection. Some patients are allergic to some aseptic solution or some type of dressing. This leads to limited choices for disinfecting the catheter. No proper disinfection for the perm catheter causes infection.

The other issues that were caused by hospital’s protocols are: luck of effective protocols to prevent catheter infection by; preventing catheter exit site infection by using the proper effective ointment in the exit site, or preventing line related infection by locking catheter with the proper effective medication.

Another issue exists because nurses might not follow the proper technique to maintain sterile technique while dealing with catheters during the starting or termination of hemodialysis. Causes might be carelessness of the staff, shortage of the staff with no time to deal with a lot of patients and follow the sterile technique. This will lead to no proper disinfection of the permanent catheter causing infection.

The last issue is related to vascular problem (poor flow from the perm catheter). The possible reasons of that might be poor quality of the catheter, which is not suitable for all types of patient’s blood vessels, no qualified expert vascular doctors to insert the catheter in the operating room for the patients, and long term use of the catheter causing small clots in the lines which will cause half or full obstruction of the catheters. There is a long process in admitting the patient to exchange the catheters, and no follow up of the patient from the beginning of dialysis to create the AVF or AVG in the early stages before the problems of the catheters are the possible reasons of the long use of the catheter. This leads to exposure of the catheters during the hemodialysis session to check the flow
many times and position the patient to get the flow to dialyse him. The frequent handling of the catheter might cause catheter infection.

This research paper focuses on the lack of the effective hospital’s protocols to prevent catheter infection by preventing catheter exit site infection and line related infection.

**Literature review**

According to McAfee, Seidel, Watkins & Flynn (2010), the authors of the article "A continuous quality improvement project to decrease hemodialysis catheter infections in pediatric patients: Use of a closed luer-lock access cap", permanent catheter infection is a significant complication associated with long use of the catheter. Treating this infection or replacing these catheters is costly. Furthermore, it leads to increase the morbidity and mortality of the ESRF patients. Therefore, McAfee et al (2010) researched preventing catheter infection in a hemodialysis children center where all patients are dialyzed via permanent catheters. In their quantitative study, McAfee et al (2010) tested closed luer-lock access connectors Tego connectors, by attaching them to the end of the catheters of all their patients. They studied these connectors on 19 patients in the last quarter of 2005 and 2006. The rate of the permanent catheter’s infection incidence, blood stream infection, was significantly decreased, by less than half, after using Tego connectors. These connectors provide closed system mechanical and microbiological, which means they do not allow anything to enter the catheters, while using the catheters for dialysis. The connectors had to be changed after three hemodialysis sessions or after a week. Through their ongoing quality assessment and performance improvement (QAPI), McAfee et al (2010) tracked the rate of the infection before and after using the Tego connectors monthly for all the hemodialysis patients. Then, they compared the number of catheter–related blood stream infections within the five quarters of the years. After that, they used a continuous quality improvement (CQI) problem solving model of plan, do, check, act (PDCA) cycle to carry out the changes and these steps were continuously repeated for continuous improvement. After the great results of using the Tego connectors, they expanded the
project to use PDCA cycle to apply these connectors to all the hemodialysis in-patients, who have catheters (McAfee et al, 2010).

The permanent catheter infection issue and how the infection could be prevented have also been researched by Lok et al (2003). They did the quantitative study in United States to determine if topical polysporin triple antibiotic ointment, which is applied to the exit site of the permanent catheter, could decrease the incidence of catheter related infections. In their research they used a double-blind study design where they choose 162 patients with end stage renal disease who were dialyzed via permanent catheters and randomly separated the sample into two groups. One group had applied a placebo treatment and the other group with the polysporin ointment for six months. The findings were documented by the nurse on a questionnaire and submitted for review, confirmation, and classification to the primary investigators. They compared the incidents percentages of the infection, bacteraemia, mortality and morbidity related infections in both groups. In each theme they noted the rate of the incidents were more with the group who used placebo treatment. For example the percentage of the infections in the placebo group was high as compared with the polysporin ointment group (34% versus 12%), and the proportion of the patients who experienced a bacteraemia was significantly higher in the placebo group than in the polysporin ointment group (24% versus 10%). Therefore, the application of polysporin ointment for prophylactic treatment of permanent catheters infection should be considered (Lok et al, 2003).

Maki, Ash, Winger & Lavin (2011) have done a study to examine the effectiveness of a new antimicrobial and antithrombotic lock for the permanent catheter in preventing a catheter-related bloodstream infection (CRBSI), and in maintaining the catheter flow by comparing it with heparin. They did this study because they felt that there is an urgent need to discover and develop new effective ways to prevent CRBSI because infection is considered the second leading cause of death in kidney failure patients after septic shock. This lock contains 7% sodium citrate, 0.15% methylene blue, 0.15% methylparaben and 0.015% propylparaben (C-MB-P). It is installed to the catheter lumen.
after finishing the hemodialysis to prevent colonization of the plank tonic microorganisms on the catheter surface, which prevents biofilm creation on the catheter’s inner wall. In the laboratory this lock had shown fast bactericidal activity against many types of bacteria. The study of Maki et al (2011) was AZEPTIC study design, and multicenter, randomized and controlled trial. It was on 407 patients, who had separated randomly into two groups, 201 patients had catheters locked with C-MB-P lock, and the other group 206 patients had catheters locked with the heparin as usual for six month, with a six months extension for monitoring only. In their statistical methods, they used a two sided Fisher’s exact test and compared for CRBSI incident rate, catheter patency, adverse effects and death in both groups. Furthermore, a singly-ordered exact two-sided Kruskal-Wallis test was used to compare characteristics of the study population, the last catheter flow and the numbers of any need for thrombolytic or radiologic intervention. Study data management and data analyses were shared by Averion International and StatKing Consulting. The outcomes were evaluated locally by a nephrologist, an infectious disease consultant, and an expert in pharmacovigilance who were not involved in the trial. The last results have shown that there was 71% reduction in CRBSI in the C-MB-P group. Also there was no loss of the catheter flow in the C-MB-P group, while there were four catheters that lost patency in the heparin group. Therefore, Maki et al (2011) recommended by the end of their study the use of the novel lock C-MB-P. It provides antithrombotic effect because of the weak concentration of the citrate and anti-infective effect as it is considered anti-septic not antibiotic, which will not cause later resistance to antimicrobials treatment. It gives protection against most of the bacterial pathogens. They considered that the lock is as safe as the heparin with strong effectiveness to reduce the infection and catheter patency failure which leads to a decrease in the mortality rate in the end stage renal failure (Maki et al, 2011).

Discussion

In Qatar and as noted in Hemodialysis centres, the rate of permanent catheter infection has increased in most of ESRF patients. Catheter infection is a major cause of morbidity and mortality in ESRF patients in Qatar and all over the world. Therefore, it is so important to decrease the rate of
permanent catheter infection. The purpose of this research is to develop and create new ways or protocols to help in preventing the permanent catheters infection.

Permanent catheter infection could be prevented by three different possible solutions presented in the literature review. In one of the studies the catheter infection was eliminated by decreasing the blood stream infection via providing closed system mechanical and microbiological to the catheters via using closed luer-lock access connector to the catheters. These connectors decrease the blood stream infection by less than half, which means they decrease permanent catheters infection by half (McAfee et al, 2010). When comparing with Qatar, such connectors are not used here for patients.

Another way to prevent catheters infection was studied by preventing the catheters exit site infection and bacteraemia. The application of topical polysporin triple antibiotic ointment for prophylactic treatment of permanent catheters infection was with significant results (Lok et al, 2003). This is in contrast to Qatar where the iodine ointment is applied in to the catheters’ exit site.

A new effective way to prevent catheter infection was discovered and developed by preventing catheter-related bloodstream infection (CRBSI). Locking the catheters with antimicrobial and antithrombotic lock (C-MB-P) prevents colonization of the plank tonic microorganisms on the catheter surface, which prevents biofilm creation on the catheter’s inner wall (Maki et al, 2011). It decreases the CRBSI by 71% when comparing it with heparin, which is used in Qatar to lock the catheters. This means decreasing the catheter infection by 71%.

All the three studies are effective and equally important to decreasing the catheter infection. Applying these studies in hemodialysis centers in Qatar will provide effective protocols to prevent catheter infection. The only possible disadvantage of the solutions is that time is needed to implement them in the protocols and applying them in practice.

**Conclusion**

Permanent catheter infection rates in Qatar have increased. It is a major cause of morbidity and mortality to ESRF patients in Qatar and all over the world. Decreasing the rate of permanent
infection is very important. Issues have risen and were classified according to who might be responsible for that catheter infection, the patients, the hospital’s protocols, the staff (nurses), or the vascular problem. This research paper focused on developing and creating new ways or protocols to help in preventing the permanent catheters infection. Three possible solutions to prevent catheter infection were discussed in three different studies in the literature review. Catheter infection could be prevented by decreasing the blood stream infection, preventing the catheters exit site infection, and preventing catheter-related bloodstream infection. The evidence underscores that decreasing the blood stream infection could be achieved by using closed luer-lock access connector to the catheters, which provide closed system mechanical and microbiological to the catheters via using. Preventing catheters exit site infection and bacteraemia could be achieved by applying topical polysporin triple antibiotic ointment as prophylactic treatment. Locking the catheters with antimicrobial and antithrombotic lock (C-MB-P) is useful to preventing colonization of the planktonic microorganisms on the catheter surface and prevents biofilm creation on the catheter’s inner wall, which prevents catheter-related bloodstream infection. Applying these strategies, in hemodialysis centers in Qatar will provide effective protocols to prevent catheter infection with benefits to the patients. This will lead to decrease permanent catheters infection in Qatar.

**Recommendation**

The problem of increased rates of permanent catheter infection has already been outlined in the hemodialysis unit in Qatar. Educational lectures to the staff should be held by the staff educator nurse under head nurse and infection control staff supervision to address all the arising issues that were related to the problem. The three possible solutions, which were mentioned in the literature review, are: using Tego connectors to the end of the catheters, applying polysporin ointment in to the exit site of the catheters, and locking the catheter with an antimicrobial and antithrombotic solution (C-MB-P). These solutions are recommended for use in the hemodialysis centers in Qatar, for the safety and the health of the patient. These solutions should be applied one by one to the patients starting with the short term implication, which is using Tego connectors, and later on the
long term implications, which are applying polysporin ointment and locking the catheter with antimicrobial and antithrombotic solution (C-MB-P). The catheter infection rate in hemodialysis unit should be tracked continuously through the implementations to prove the effects of these solutions.

References


Decrease the shortage of nurses in Hamad Medical Corporation by Fareeda Omar

Introduction

The nursing shortage is a common problem that is increasing all over the world. Most the people are leaving the nursing career due to increased career opportunities for women and publics misunderstanding about the nurse’s job. These factors will impact negatively on quality of patient care and will increase work load for nurses. The nursing shortage is a result of work load; a failure to value nurses roles, forcing nurses to do mandatory overtime and lack of responsiveness among other health members which all leads to more pressure on nurses. The nursing shortage is an important issue and must be resolved because it affects quality of patient care and ultimately affects on staff, which increases number of errors and loss of trust among each other. As a result, if we have high quality of patient care this will lead to high reputation of the hospital. As we know, nurses are an essential component of the health care system and solving this issue is important for patient care, hospital and nurses job satisfaction.

Issues

The issues related to nursing shortage are staff dissatisfaction, poor management and increased number of admissions. The elements related to staff dissatisfaction are: lack of team work among health members; shift duty and no time to spend with family during night shift; lack of technology and doing more paper works; lack of responsibility among other health members and depending more on nurses to do their job. For example: doctors are depending on nurses to do their tasks; another element related to staff dissatisfaction is: transferring the staff to other units, which demands new knowledge and more experience. For example: transferring nurses from medical to surgical unit; also no off days during public holidays, forcing them to do overtime and stress due to heavy assignments, which increases number of errors. The second issue is poor management and the elements related to that are: no support for staff, irresponsible charge nurse and giving the
nurses bad assignments due to conflict with the charge nurses that leads to sick leave of staff because of handling heavy patients which causes back pain; resignation of staff due to stress and receiving remainder letters from their head nurse. For example: staff forgot to do her monthly assignment and the head nurse will punish her for that. The third issue is increased number of admissions and the elements related to that are negative effects on patient care because the nurse will spend more time with one patient and she might forget her other patients. This increases work load on staff because some patients are having more than one procedure which staff will stay away from the unit during that shift and the nurse will forget her other patients.

This paper focuses on staff dissatisfaction related to lack of team work among health members and more paper work due to lack of technology.

**Literature review**

The study by Ferguson and Cioffi (2009) is related to the issue of staff dissatisfaction due to lack of team work among health members. This study answers the research question “What are nurses’ experiences of team nursing?” Nurses who worked in team nursing situations described team nursing as patient oriented, enhanced accountability toward the team members, encouraging collaboration, providing better patient care and using nurses’ experience as a reference point for their decision making and these all are the sub-elements for this article. Some nurses commented that working in a team had improved relationships. This article reports the findings of a qualitative study to identify and describe nurses’ experiences of working in teams in acute care settings. There were 15 nurse participants who volunteered to participate in 5 small group interviews. The article reports the benefits of team nursing which are: team approach, team effectiveness, increased responsibility, availability of support and engagement with the multidisciplinary team. Nurses described working in a team made a difference to patient care because all the nurses in the team became more familiar with patient care, the care becomes more complete as the things are missed less often and staffs are supervised, which improves patient quality of care and staff confidence in
their team. Also the team approach was different within teams and between ward areas. They also described that working as a team increased their responsibility because each nurse was not responsible for his/her patients only, but will have a responsibility as a team. Nursing support was identified as coming from within and from outside the team. The type of support within the team came from the team members and team leader and from outside the team from the nurse unit manager and educator. The team leader provided the emotional support also. Finally, they described that the nurse’s relationship with the multidisciplinary team became more effective. Also they support nursing team in providing patient care.

The study by Atwal and Calwell (2006) is also related to the issue of staff dissatisfaction due to lack of team work. The main idea of this article was to explore nurses’ perceptions of multidisciplinary team work. Team work is one of the most important issues for nurses because they are dealing with different professions, which demands more skills and understanding of all other professionals’ roles not only the nursing role. Consequently, teamwork has become an important part of nursing practice. In the article, the author defined interprofessional working as collaboration among team members, whereas multiprofessional working is described as group of people from different health and social professions who work together but do not necessarily interact. So if there is any member of team work who didn’t accomplish his/her task and has different goals, this will affect patient care and provides negative feedback about the team members. Team work has many advantages including improved planning and effective with more responsiveness toward patient care services. The methods which are used in this study are both qualitative and quantitative. Nineteen nurses working within the acute care setting were interviewed using the critical incident approach. A direct observational study was carried out using Bales Interaction Process Analysis. The criteria for ethical issues were set by the hospital ethics committee. The researcher was unable to gain ethical approval to video record the ward rounds. Expression of opinions and confidence were considered as essential skills that are needed for effective team members. Also in team meetings, there was evidence that nurses were unable to express their opinions because of fear of being
blamed for something done by other members. This research study identified three barriers that affected teamwork: different perceptions of teamwork, different level of skills among team members and usage of medical power which influences interaction among team members. In order for teams to work effectively, its members must collaborate and support each other to accomplish their tasks in the required time. Confidence must be available to function as an effective team member.

The qualitative study by Lee (2007) related to the issue of staff dissatisfaction due to lack of technology and more documentation. The author explored nurses’ experience during the first period of using of a nursing information system, and the results of the implementation of an information system mostly depends on the nurses’ capability to accept the technology. Furthermore, the use of technology in patient care has significantly changed traditional nursing care. However, nursing is not only a care giving profession, but has become a technology profession. The effects of computerized documentation on saving time and quality of its use have been reported. This paper reports the experience that many nurses faced during one year of nursing information use. In early stage of usage of the system, the nurses were required to do their charting like: patient initial assessment data, nursing care plan for one patient on both computer and paper. In one year, they added more things in the system for charting for online use, such as laboratory results, discharge summary, patient education and medical orders. The staff was required to document all the patients required data and make printouts for every shift. The hospital provides different papers of different design for printouts with multi printers. This is a qualitative study as they explored nurses’ experiences of information system use during the first year of its usage. The study focused on group interviews to collect data. “Four focus groups were done with the 23 nurse participants in November 2005” (Lee, 2007, p.763). The major themes in the early stages of nursing information system implementation were: insufficient computers and printers; poor content design because the nurses complained that they have to go through many screens to get what they need; decreased charting quality; slow system response time, work force change. Not everybody in the hospital was allowed to use the
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computerized charting. For example the operation room had not computerized yet; patients’ data was documented manually on the nursing record and when the patient was sent back to the unit, the unit nurse must document needed data on the computer and print it out. However, the unit in charge makes a schedule from her own when each nurse should use the computer for charting, which gives them time limit to document the completed patient data. And this gives negative impression on their relationship because not everybody had good typing skills, so some nurses may spend more time on computers for charting than others, which may increase the workload on the unit and affect their relationship among each other.

Discussion

Working in a team is one of the important issues related to staff dissatisfaction due to the nursing shortage. Working in a team will decrease the work load on nurses, improve their relationship among each other and improves quality of patient care. The study by Ferguson and Cioffi (2009) supports this issue and shows that nurses who worked in a team became more oriented about their patients, enhanced accountability toward the team members and encouraging collaboration. Some nurses commented that working in a team had improved their relationship with multidisciplinary team. The study by Atwal and Calwell (2009) supports this issue and shows nurses perception of multidisciplinary team work. The article reports that team work has many advantages which will improve the nurses’ responsiveness toward patient care services. However, documentation also is taking most of nurses’ time, which negatively affects patient care and increases medical errors. The study by Lee (2007) is related to the issue of staff dissatisfaction due to lack of technology and more documentation. It is mentioned that the use of technology on patient care has changed traditional nursing care. In early stage of usage of the system, the nurses were required to do assessment and nursing care plan for one patient on both computer and paper. In one year they added more things in the system for charting for online use, such as laboratory results, discharge summary and patient education. The staffs were required to document all the patient data
and make printouts for every shift. This is easier than writing all the data because in the computer they will fill only required data. It must be considered that paper work takes most of nurses’ time, but using technology will save much more time.

Conclusion

In summary related to the issue of team work, which is very important element for staff satisfaction because it improves their relationship among each other and with other health members. So working in a team is an essential issue for nurses’ satisfaction because they will work as one team and they support and remind each other which decreases medical errors and satisfies the staff. The experience has shown that team work is important for nurses because it will decrease work load on nurses. For example: if one nurse in the team busy in procedure, the other nurse with her in the same team can help her to give medication for her patients. Also technology is important for nurses because it saves their time and improves their career. In this way a nurse will be a care giving professional and a technological professional. Furthermore, implementing of technology requires sufficient computers and printers with fast system to save their time for patients. Based on the experience that documentation takes a lot of nurses’ time and many nurses are very slow in writing and always they extend after their duty to complete their paper works, but by using technology this problem will be solved.

Recommendations

Team work is very important point for staff satisfaction especially in Qatar. Nurses in Qatar are suffering with team work because most of health workers depending on nurses to do their job. For example: male doctors cannot go and examine female patients unless the attendance of nurse, which lead to more work load for them and accumulation of nurses work. Therefore, working as a team will improves patient care and enhances relationship among other health workers. In order for teams to work effectively, members must collaborate and support each other which satisfies all
team members and improves the hospital reputation. Suggestions for team work each head nurse she can keep a leader for each group who have the responsibility of the group to guide them when they face any problems. Therefore, all health members must know their job description and what they should do exactly, so they will not depend on nurses in everything and this decreases work load on nurses. Suggestions regarding the use of technology in Qatar are to provide sufficient computers with high speed internet because nurses are spending more time on paper work which affects patient care. Most of patients in Qatar are complaining that nurses are busy with writing and they are not attending calling bells. Implementation of computerized charting will improve the nurses’ profession as well save time. However, there was many challenges for nurses’ during the implementation of computerized documentation in the literature, so we must address these challenges as they can lead to dissatisfaction of nurses and gives them bad experience about the usage of computer in the future.

References


Nurses Roles in Preventing Delays in Patient Discharge by Asma Saif

Introduction

Any delay in discharging patients results in prolonged patient hospitalization and increases the length of stay. This creates a series of systematic problems such as increased hospital cost, increased pressure on the health care system and over stretching manpower. It also causes bed space crisis, as a result of the inflow of patients from emergency or admission department.

There are various issues which contribute toward the untimely discharge of patients; however this can be managed by an active discharge planning in which nursing play a vital role.

Issues

Delay in patient discharge occur due to the following issues including: delay in paper work such as medication prescription, discharge summary, medical certificate, delay in doctors round to decide patients for discharge; poor doctors assessment which would specify the cases for discharge 24hrs before the discharge; doctor and nurses mismanagement of workloads leading to delay in the issuing documentation. The patient may also refuse discharge and treatments because of lack of family and patient’s awareness about health problems; the need for treatment on time; and patients knowledge deficits about the importance of being discharged on time (they believes that hospital is safer). Delays in receiving medications lead to delayed patient discharge because there is no relative available at the time of discharge so the patient will stay in hospital waiting for his relative to collect him; his medications are not available; invalid health card; and involving Case managers causes delay in facilitating discharge process. Some patients are unable to purchase medications due to lack of money. This article will discuss the nurse’s role in preventing patient delay in discharge.
Literature Review

In the study by Williams, Leslie, Brearley, Leen, and O’Brien (2010) called “Discharge delay, room for improvement?” the author examined the hypothesis of introducing the critical care outreach role in decreasing the frequency of discharge delay from Intensive Care Unit (ICU) to the ward. It compared studies between 2000/2001 and 2008.

This study was about the role of the outreach nurse in improving patients discharge from ICU to the ward excluding the patients who were directly discharged to home. The reasons for delay examined such as no bed, bed delay, staff shortage, medical reason and other delay reasons.

This quantitative study focuses on the number of patients been discharged from ICU to the ward. The research method used was approved by institutional ethic committee (ICE). Data was collected by experienced nurses, and all data was secured with password protection in the same hospital.

The purpose of the study was to compare the percentage of patients whose discharge was delayed from ICU during a 2-6 month period from 18 September 2000 to 18 March 2001 (data was collected by Clinical Nurse Specialist) and from 2 June to 30 November 2008, (data was collected by critical outreach nurse).

Delayed patient discharge from ICU was considered to be an 8 hour period from the time of the discharge order by medical staff. The setting was located in Royal Perth Hospital in a 22 bed adult ICU which including medical, surgical, and trauma cases. This ICU usually admits 1500 patients per year.

Length of stay from time of admission to ICU until time of discharge from hospital, and the acuity of patient illness was also reported using Acute Physiology and Chronic Health Evaluation (APACHE) II.
Study results showed that in 2008, the total number of discharged patients was 561, 31% of the discharges were delayed more than 8 h, increases of 6% from 2000/2001. The most common reason for delay in 2008 was because of no bed or delay of bed availability (53%), medical reasons (24%), and staff shortage (2%). The most common reason for delay on 2000/2001 was because of no bed or delay on bed availability (80%), medical reason (9%), and no bed in Rehabilitation unit to accept the discharged patient (1%) (Williams, A et al 2010). The hypothesis which was introduced in this study did not give any effective role of the outreach nurse to foster the discharge planning process (Williams, A et al 2010).

The study by Pirani (2010) reported the “Prevention of delay in the patient discharge process: an emphasis on nurse’s role” on the issues related to delayed discharge. This was described as a common problem and needed active action by health care worker to be resolved. The author focus on the nurse’s role in preventing delayed discharge and the patient factors contributing to the delayed discharge. Strategies to solve this issue were also investigated by focusing on the “nurse’s role, nurses participation, patient, and family involvement “(Pirani, 2010, p e1).

This was a qualitative study based on readings from many authors’ articles. Discharge planning was stated as health care worker responsibility (Foust, 2007, in Pirani 2010) Good discharge planning needs an effort by the multidisciplinary team involving the patient from time of admission using all resources to meet patient need during discharge, which will help patient to recover and be healthy as soon as possible.

There are many factors which contributed to patient delay in discharge as mentioned in this article including the individual factors “age, emotions, disposition, and personal support from patient relative and friends”(Pirani, 2010). Medical factors stated in this article mentioned that there are many patients who are ordered to be discharged but are delayed due to another health complication which they encounter during discharge time and cause them to be delayed.
Organizational factors give an idea about the service supporting discharge process, for example, lack of home support.

Pirani (2010) described the nurse’s limited participation in fostering the discharge process due to various reasons such as workload, knowledge deficit by nurses about discharge process, and heavy duties.

The author presented some steps to be followed based on his reading from other authors in order to solve this problem through nurses as they should take the control in facilitating patient discharge.

The nurse should liaise with the patient and various health-care providers through clear communication and documentation. Identifying patient needs from time of the admission; and to try to meet them as early as possible before discharge is decided. It’s also very important to included patient and their family in decision making during hospitalization and discharge planning to help them understand the disease process and the care required.

Macleod (2006) described; “The nursing role in preventing delay in patient discharge”. The author reported a case scenario of delayed patient discharge and through the scenario he explained the importance of health care provider action in facilitating patient discharge process. It also explored the nurse’s roles during discharge and the importance of their roles in preventing readmission.

The case scenario which was examined in this article was about “Ms. Lily, an 86 year old woman who was admitted through emergency to surgical ward with fractured neck of femur after she fell down. Ms. Lily lived alone with her only daughter, Mary who felt unable to provide her mother with the increasing care she required after this accident. The daughter claimed that her mother was forgetful and unable to remember what she was doing. Lily recovered well, was discharged, but has been readmitted after losing confidence in mobilization. She could not cope at
home on her own so, when Lily was fit for discharge, the discharge was delayed three months before a home care facility would take care of her”.

Delayed discharge means any problems that cause a delay in discharge process (Macleod A, 2006). This study reported Ms. Lily as an example of delay patient discharge. Six weeks is the period given to arrange discharge process for a patient who needs community care service (Jones, 2002, in Macleod, 2006).

The whole systems approach means that all health care providers should work together with the patient as priority. Coordinating all work among the team and effective managers and leaders can support and foster the discharge process discharge. The scenario in this article showed that many health care providers can be involved during the discharge of a patient and it was identified in this case study that there was some missing communication between health care providers. The author reported that other authors support that the nurse should be the responsible person to facilitate the discharge process with other health care providers and other care facility (Rudd and Smith, 2002, in Macleod A, 2006).

The nurse plays an essential role in preventing delay of discharging patient through proper and clear communication by making sure that all reference and information about the person is on time and without delay. “Open, honest and timely communication among all those involved in the discharge process helps effective discharge” (Bull and Roberts, 2001, in Macleod A, 2006, p45). The author also identified that some phone calls to other facilities were not documented clearly in nursing note and no follow up done about them (Macleod A, 2006). The estimated discharge date should begin during admission and should be clearly written on patient records “as discharge cannot be identified as delayed if the date of discharge has not been estimated and documented “(Lees and Holmes, 2005, p45, in Macleod A, 2006).
The patient’s ability to be discharged should also be considered as in this scenario Ms. Lily feels helpless as she didn’t have choice for her discharge process and decision was taken by medical team that she should go to home care facility. The patient should be given the choice for their treatment and should be actively, involved in discharge planning along with their families (Macleod A, 2006).

This study is a qualitative study based on case scenario and the researcher readings from many authors’ articles that support the same finding.

This study is a qualitative study based on case scenario and the researcher readings from many authors’ articles that support the same finding.

**Discussion**

The results of the three studies indicate the roles played by nurses in the prevention of the delay of patient discharge.

Williams et al (2010) have shown that the outreach nurse did not play an important role in decreasing the delay of the patient discharge. However, Pirani (2010) and Macleod (2006) studies support the contribution and roles of nurses in facilitating patient discharge from the hospital. The study of Macleod, 2006 also provided strategies in order to overcome the limitations that are faced by nurses. Such improvements are staff exercising effective communication, via other health staff, being proactive and making sure that they complete all tasks at hand, hence removing the common issue of passing the work on to other colleagues. It is vital that all documentation is completed within the set time, referrals need to be completed immediately, In addition to what has been mentioned it is essential to keep the patient involved and updated, this not only improves our customer service delivery but more importantly, the patient is aware of his/her status and is able to be proactive in his/her discharge.
Conclusion

In summary, studies have shown various contributing factors for the delay of patient discharge.

Patient discharge is a serious issue which should be planned from the very day of admission and monitoring this throughout the hospitalisation period. The patients and family needs should be consideration and it is vital to involve all health care providers in the decision of discharge, to avoid any mishaps. The studies clearly show the roles played by nurses in discharging patients and the need of allocating an assigned nurse as a key person who would advocate to facilitate patient discharge.

Recommendation

There are a number of points mentioned in the studies which can be implemented in the Qatar Health care system to assist in the prevention of delaying the patient discharge.

Firstly the roles of nurse’s are in need of review, in order to provide them with the authority to refer the patients to the appropriate facilities as soon viable. Secondly, to allocate a designated nurse who can take the role in coordinating and facilitating discharge, this would be an effective measure. Thirdly, it would be a helpful to create an multidisciplinary committee, which would consist members of the different departments involved in patient care. This would be in order to meet on a regular basis for patient discharge review and plan development. Fourth, a discharge checklist developed by different health care providers mentioning their roles in discharging plan within a time frame. Fifth, Data collation regarding the reasons for any delays in the discharge of the patients can be compiled. This would be used to ascertain the reasons/causes and recognise the barriers towards the discharge delays. Sixth, regular meetings should be conducted on a monthly basis to discuss limitations faced and to find strategies to overcome.
References


Reporting child abuse by nurses and health care members by Fatin Salama

Introduction

Why do maids have abusive behavior toward kids? Who is responsible to report child abuse? What is the role of nurses and health care workers in child abuse or neglect situation? This topic is important because nurses, physicians, other health care workers and all humans are concerned about their kids’ health. It is important to provide healthy, normal lives that help our kids to grow up and to develop physically and psychologically without any suppressing factors.

One of the surprising factors maids. They are not always caring and doesn’t have positive attitude when dealing with children. Maids can be caring and loving or abusive and with bad attitudes. There are many causes behind the maid abusive behavior that parents need to know. The parents play a strong role in the cause when they neglect the kids and leave their responsibility to others like maids. The parents have a role in the prevention of the abusive behavior by the maid by following up with their children and observing any behavior change or signs of abuse. Any child post abuse needs consultation and psychological treatment. If there is physical abuse or physical harm; all of this needs a good support from the parents, lots of love, more care and a sense of security for the kids to overcome the impact of the abuse. All health care employees, including nurses, need to report any recognized abuse because health employees care about child health and development. Qatar is stepping up toward improving health care. One of the important issues is to educate the nurses and health care members to report child abuse especially in Qatar. The majority in Qatar depend on maids for housing and child care. The health care system should be ready to handle abuse situations seriously.

Issues

In one hand the reasons behind maid’s abusive behavior toward kids can be related to the maid her self. Any psychiatric problem for the maid as in depression, anxiety or aggressiveness. The
sponsor does not know about her medical background or her previous negative experience in her home country. She might have some anxiety about her kids, while she is taking care of others kids. In the other hand the sponsor or the parents can be the cause behind the abuse. Sponsor mistreating as in sponsor beating or shouting. The sponsor deprived her from her human rights as in family contact, going out or having time off. Also she might not receive her salary on monthly basis. Some maids are deprived from her human essentials as food, sleep and hygiene. Further more absence of parents that might lead the maid to have the full responsibility of the kids. E.g. parents at work, not observing the child and when they are inside the house still they are leaving them with maids. More responsibility and less help to the maid. Increasing her workload, handling everything as in feeding the kids, playing with the kids, cooking, cleaning the house, etc. This can lead for more authority in maid’s hand which can be negative and lead to abusive behaviour. The maid may be overwhelmed and stressed. Last but least Lack of proper training for nurses and the health care team to be able to identify and report confirmed child abuse or negligence.

The abusive behavior can be by physical or in nonphysical ways e.g. sexual, physical or psychological, prolonged physical and psychological treatment is often needed. The focus of this paper is the health care workers to gain appropriate knowledge and skill to handle and report child abuse cases.

Literature review

Fraser, Mathews, Walsh, Chen Dunne, (2009) examined compliance and mandated reporting of any type of child abuse. Questionnaires were completed by 930 registered nurses. The results were that nurses were well-formed and sure to report any kind of abuse whether child physical abuse (CPA) and/or child emotional abuse (CEA) and/or child sexual abuse (CSA). Within the result, one can conclude that with a well-trained nurse, these cases of child abuse will be reported directly as nurses are a key part of the solution to address this serious problem. Even the researchers of this
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paper admit that more in-depth research is needed to be done especially on child emotional abuse (CEA) and child neglect (CN). Child abuse or negligence is a crime that was made on the child.

Loo, Bala, Clarke & Hornick, (1998) see that physicians and nurses remain the primary reporters of child abuse in the health care system. They are expected to be well-qualified to diagnose maltreatment and types of children abuse. Unfortunately, a number of health community and medical staff don’t believe that the health system is adequate to identify child abuse and neglect.

The doctors often fail to diagnose child abuse due to poor training by medical schools. A lot of doctors feel they don’t know who to call and they are unsure about the impact their call on the child, parents and the one who reported the abuse. The specific goal is to provide an overview and an example of identifying and reporting child abuse in eight hospitals. A practical problem in conducting this project was that Canadian writings and useful research in the area of child abuse identification and reporting are extremely limited. Suspicions of child maltreatment were not reported although 44% of the 1,196 respondents consistently reported suspected abuse. Over 90% of the books, articles and data related to child abuse are American, and most of the remaining ones relate to situations in the United Kingdom and Australia.

It is important to maintain a coordinated and cooperated community in regard to the child abuse cases. Thus, different strategies and common protocols of intervention must be sustained and accomplished on the basis of the child protection.

(Atchkova & Polnareva, 1993; De Lucia, 1989; Willis et al., 1992) developed a semi-structured questionnaire which was distributed to assess the training program which shows the complexity of child abuse cases with the desire to choose from the appropriate methods to protect children and their families. In addition, interventions need to be taken seriously and not only on a verbal contact. One hundred and seventy-nine school teachers and managers completed the survey
before they got the training while one hundred fifty-four completed the survey after the training. Consequently, it showed positive results on the efficiency of the program. The analysis of the data showed the participants’ interest in gaining knowledge of the matter. On other words the true difficulty is to show commitment and involvement. There has to be different departments, individuals and nurses who must be get involved in children protection.

Finally, the three journals used for this review concentrated on nurses and health team workers reporting child abuse. Different methods were used to asses the effectiveness of reporting child abuse by health care team. It was found that proper training is needed especially for the physicians since they do not know when to report and to whom. Nurses were willing to report and observe for any type of child abuse or neglect.

**DISCUSSION**

The major problem is the failure of physicians, and sometimes nurses and other health care members to report child abuse or neglect due to lack of knowledge. Consequently, training courses should be mandatory for all health care members especially nurses as they are the key person who is dealing directly with the children and observing them. (Loo, et al 1998) identified the need to educate and train all health care members and all the personnel that deal with the child as in teachers, managers. (Fraser, et al, 2009) developed a questionnaire that showed nurses are well formed regard child abuse reporting. The first article that discussed the abusive attitudes of the maids is a good one; it identified the cause and solution behind deficits in reporting of child abuse or neglect.

**CONCLUSION**

Based on the introduction and literature review, training courses are needed for nurses, physicians, other health care team members, people who deal with children as in teachers and any
one who is interested. This topic is very important because if neglected, it will have a negative impact on the development of our children who are the base of our society. If the basic need for normal development in life which is sense of security and love is missing then children will develop psychotropic or/mental illness and the major reason behind that is nurses, physicians, physiotherapist, dieticians, teachers and any one who does not report child abuse or neglect.

RECOMMENDATIONS

training the health care staff, teachers and any one who is interested about types of child abuse, to whom to report and what to observe for in suspected child abuse or neglect. In my opinion it is always best for the child to be with his biological parents, but if there is witnessed, confirmed child abuse or negligence then police and social worker have to be involved and that is exactly what happens in Qatar. The training courses have to be from experts because not all suspected child abuse has to be reported. It has to be confirmed because if there is any faulting in reporting, the child will be separated from his family. Then the results will be more harmful to the child than is expected. In Qatar, child abuse or neglect will be reported to social worker and it might be a police case if there is/or suspected physical harm on the child. Qatar and the gulf area should minimize the use of maids and if used to kept them under observation at least until trust relationship develops and then not to load the maids with responsibility and work because they are humans and have right just like everyone. Education for the public regard observing child behavior change, maids human rights, importance of child sense of love and security, presence of maids in the our houses positive and negative points is very important. The education can be through postures, video play, acting and all other types of media, in primary health care settings, emergency area, out patient clinic and in the streets.
Bibliography


Increase in Retention of Nursing Staff in Qatar Hospitals by Saeeda Umer

Introduction

It is very important to know whether staff are satisfied in their job so that managers will be able to retain their staff. For example, managers need to provide a positive working environment and the appreciation that will help staff to be motivated while working. Retention affects the hospital budget, work environment, and other employees as well so it is important to address the issue in Qatar.

Issues

Four consistent themes provide evidence of why staff are thinking of quieting their jobs. These were: poor management which includes these sub issues of: lack of support from the head managers; no equal pay of salary for overseas and local hires plus differentiation between the staff; no equal management of annual leave among the staff; unfair assignment distributed between the staff; no equal chance for promotion among staff; junior staffs have no one to listen to them; and staff have good opportunities outside of Hamad Medical Corporation. Work load issues include these sub issues: heavy assignments; extra time spent for documentation; doing extra work that is nursing aide work; extended work days without time off; increased number of patients assigned due to less number of staff; and shortage of staff. Family issues include these sub issues: shift work (no time spent with family); no available child care services, no time off during Eid which is affecting the family of the staff, Staff relationship with each other has the following sub issues: staff relationship is affected due to stress, staff who are divided into groups according to their nationalities, and they support each other with same nationality, poor management is the focus of this literature review.

Literature Review
The purpose of the study by Force (2005) is to describe the connection between leadership styles and staff retention. This article has connection with the issue of poor managers. This was a qualitative study which was done on undisclosed number of staff and 81 nurse executives which consisted of content analysis, narrative answers from nurse executives and staff nurses. The author discussed the following subjects: transformational leadership style, extroverted personality traits, and magnet hospitals organizational structures that support nurses empowerment, autonomy, and group cohesion, tenure, and recognition by leadership graduate education. The author found that nurses who have transformational and transactional leadership styles have charisma and can provide more effective communication of the mission, vision, and strong relationships among their staff. Magnet hospitals and organizational support of nurse empowerment, the author found that nursing leaders in magnet hospitals have great power, and they are strong leaders who have the courage to educate their staff. Nurse leaders have a role in retaining their staff through appreciation, reward and satisfaction. In addition, a nurse leader has power, autonomy, and leadership and is open to staff more supportive, therefore their staff nurses are more satisfied, happier and comfortable in their work areas and will stay longer in the organization. In addition with recognition is that staff is being identified, appreciated, and praised, this will build positive working environment for them, and they extend their employment. This is a very important topic to raise because recruiting new staff cost the international hospital 42000 US dollars as found in this study. Furthermore, when the experienced nurse resigns, the hospital will face a hard time to recruit new staff and train them from the beginning. If competent staff quit it might also affect patient care (Force, 2005).

Duffield, Roche, Blay, and Stasa (2010) discuss how the positive work environment raises the staff job satisfaction and maintain staff retention. The study is quantitative and took place in 21 public hospitals across two Australian states between 2004-2006, and the data was received in 94 different wards. Data was analyzed at the nurse level using SPSS version 16. The authors report that to recruit new nurses and get them into the job, orientate them costs are from $10000-$60000 for one staff. This will affect patient care which would result from shortage of staffing leading to stress
among staff because they must cover the vacant nurse shifts. There are four issues mentioned in this article. The first is visibility, which means staff show respect for their leaders who always value them. The second is recognition. When the staff is not recognized, it can lead to staff turnover and dissatisfaction. Good managers or leaders, who are skilful and confident recognize their staff, and have clear vision for themselves and their staff. Who have the ability to build strong relations with their staff. The third is flexible rostering. When staff members do their own scheduling they are more satisfied in their shifts and report less absenteeism. The fourth is Consultative leadership. When the staff members are consulted always by their managers in every single procedure, they are very proud in their work place and build strong relationships (Duffield et al., 2010).

Anthony et al, (2005) describe how nurse managers have a major role and ability to retain staff. The objective of this study is to find out how the nurse managers have the skills and character in which staff nurses stay longer in hospital and not to think about leaving their job. The study was done by Greater Cleveland Nursing Research Consortium that was started by Frances Payne Bolton School of Nursing included leaders from academia, practice, and administration. This study is qualitative and used focus group through interview guide questions, the questions are revised by the Clinical leaders, which consisted of 8 questions. The main subject in this article is nurse managers and retention. Nurse Managers are important to whether staff leave their job. When the staff are stabilized at the workplace, this will result in decreased direct or indirect financial loss and negative effects in hospitals. Additionally this will improve the quality and consistency of care. The characteristic of good managers are the ability to communicate, to stand by staff, create a supportive environment, and provide continuous education for staff. Structures of conceptual framework of nurse managers are described as four groups: technical and physical dimension group is the nurse managers and how to provide the best equipment that will support her staff; professional values managers’ focuses on how they can offer the best expertise to nurses and fulfill the staff nurses educational and competencies purposes; administrative managers have core values and characteristics of accountability and show responsibility to be able to stand by their staff and
keep the work environment healthy; fiscal manager focuses on how to run the unit budget in terms of enough staffing to provide the best quality care for patient. The author examined three questions including; “what are the key roles of nurse managers?” (Anthony, 2005) Nurse Managers seek and go down at the level of their staff and try to help them, support their needs this way managers are more satisfied from themselves and they give the best they can for their staff. “Do the key roles of nurse managers differ by education?” (Anthony, 2005) It is different as reported if nurse manager with diploma was more into managing admission and finding beds, doing paper work, but the nurse with Bachelor Science Nursing thinks more widely in professional aspects such as recruiting, educating, and promoting staff career. “What skills do nurse managers need to retain staff?” (Anthony, 2005) Author found that nurse managers must be bold, smart and know how to help their staff, have consideration for each staff and help them in their needs in order to decrease stress that might also cause the negative thinking to resign, consider their family issues. Staff thinks they are more proud and confident when their nurse manager is encouraging positive work environment and involving them in decision making. Nurse Managers can focus on building a strong team which will lead to better outcomes in patient care. That means that more nurses are available the better patient quality care because there is higher nurse to patient ratio, so it is very important to have positive work place and as a result this is going to keep staff longer employed due to less burden on staff. Further more in this study, nurse managers believe that having good relationships with their staff will play a greater role in retaining the new staff, when the staff are coached and mentored by the nurse managers this will help them in interacting with other team members. Staff also will build strong relation within the group and nurse managers will hold the new staff from leaving their job (Anthony et al, 2005).

Discussion

It must be noted that poor management has a negative effect on retaining the staff as there will be lack of support from head managers. On the other hand, Duffield, Roche, Blay, and Stasa (2010)
discuss how the positive work environment is going to raise the staff job satisfaction and maintain staff retention. When the staff is not valued by their managers, it can lead to dissatisfaction and turnover, the leaders who are good managers, skilful and confident build strong relations with their staff in return staff is showing respect for their leaders who always valued them. In addition, workload and shortage of staff would result in less patient quality care as reported by Force, (2005).

When the experienced nurse resigns, the hospital will face a hard time to recruit new staff and train them from the beginning. If competent staff quit it might also affect patient care provided. Additionally the staff nurses relationship is affected due to stress of staff shortage, and more burdens on staff nurse. Moreover, as found by Anthony et al (2005), when the staff are stabilized at the workplace this would result into decrease direct or indirect financial loss and negative effects in hospitals. Additionally, this will improve the quality and consistency of care. Based on my clinical experience when there is enough staffing during the shift this would automatically result in highest quality patient care. Therefore staff relationship improves, and high productivity while working in positive environment ensures.

**Conclusion**

It is very important to retain staff, as mentioned in the literature review and how the nurse managers have great role in providing positive environment for nurses. Also, head nurses need the best support from the hospital in order to educate and support the staff. In general, what this means is retaining staff will also decrease financial cost; and to put it another way, it will save the budget of hospitals. Because recruiting new staff requires high budget, extra time for orientation, it is interesting to know that nurse leaders with transformational and transactional leadership styles have charisma and show effective communication skills will have strong relationship with the staff. The evidence emphasizes how magnet hospital and organization support the nurse empowerment. In addition, with power, autonomy, and leadership influence, nurse leaders who have power and support their staff will result in a good relationship among staff and their leaders. Moreover, staff
that are recognized by their head nurses are more satisfied in their job. Also technical support of the staff by their nurse manager, through providing best, and enough equipment they need will decrease work stress. In addition to all this, when nurse managers provide the expert, competent nurse for the staff, as this will result in increasing their confidence level at work. Best solutions to retain staff based on clinical experience are when head nurses are having strong relationship teamwork, providing positive environment for their staff. When the staff are appreciated, when they have the chance to participate in most decision making this will create positive impact on working area, and it will increase the productivity of staff. Furthermore, this will greatly help in retaining staff. The disadvantage of this solution is the time to be implemented and achieving process, and the people who all are involved in this change depend on how they are passionate about the change.

**Recommendation**

One of the strategies that can be used here in Qatar is to educate the nurse managers how to retain their staff through building strong relation and creating positive environment team work among staff nurses, nurse managers are the first people that the staff interacts with. Nurse Managers are the role model for the staff nurses. Hospitals in Qatar are in process of becoming magnet hospitals, which is great news for the nurses because hospital will start educating the staff nurses. In addition, the issue of poor management can be solved with this strategy of giving education to the managers as reported in the literature the nurse leaders should be given education for six months, the short term goal will be to educate all the nurse managers by staff development of Hamad Hospital section .And it is the hospital responsibility to provide the enough budget for this education plan. Teach the Nurse Managers about how to deal with their staff, so for long term goal they could provide a more satisfactory job environment for their staff, retain staff and staff might think to extend or prolong their resignation plan. Qatar needs nurse managers who are passionate about their work, educated on how to build strong relationships, so they can keep the staff involved in most of the decision making. Nurse leaders who have experience and advanced skills , who are
educated together with high vision, their staff tends to be very comfortable within the clinical areas because they are clear with their manager’s vision. This strategy of teaching nurse managers can be discussed with the head nurse, and have a long term goal plus short term goal. This is to be implemented in six month from the day of discussion. However without the support from managers staff cannot do anything. That it is very important. To show the evidence for the managers and what is goal to be achieved.

References


Preventing diabetes by Dena Mohammed Zayed

Diabetes is a chronic disease when the blood glucose level is elevated in the blood as insulin cells cannot process blood glucose properly. It is important to know about diabetes because the number of diabetic patients is increasing in Qatar. Diabetes may affect any part of the body, if it is out of the patients’ control. It is important to find out some ways to appropriate the blood sugar in the body. There are many issues lead to diabetes which are dietary factors, educational factors, psychological factors, hereditary factors and physiological factors.

First of these issues are dietary factors, include many people eat rich food with high calories, high sugar and fat saturation which cause an increase the body weight. Many people prefer fast food rather than cooking food, because cooking at home needs more time to prepare. Some of these people like to eat spicy food encourage them to eat more and results in increasing the body weight. On the other hand, many people have low educational level about healthy food and unhealthy food. As a result of that, some people don’t take care to maintain body weight and normal blood sugar.

Psychological factors are also a caused include more responsibilities with work overload and pressure which leads to stress. Some people have pressure from specific life problems which causes depression and unhappiness. Some people are at increased risk due to hereditary factor if the parents of siblings suffer from diabetes. Other people are at risk of getting diabetes for people which have chronic disease such as hypertension. People 40 years and above have a higher risk to get diabetes than others. Some drugs such as cortisone may lead to difficulty producing insulin in the body which can lead to increased blood sugar level. On the other hand, some pregnant women over 35 years may have increased risk to get diabetes, because the placenta produces some hormones which cause difficult insulin absorption.

This paper is focused on dietary factors, because diabetes is mainly a result of poor dietary habits.

Literature Review:
Ross, et al (2011) reported on “Impact of weight gain on outcomes in type 2 diabetes” (T2DM). Weight gain is considered a first indicator for diabetes. The authors explained in the article three issues which are associated with weight change and type 2 diabetes: effect of weight change on the management of T2DM, effect of hypoglycemia agents on weight in T2DM and weight gain as a barrier to treatment. The authors researched the National Library of Medicine for articles published from 1990 to 2009 the treatment of T2DM; the relationship between T2DM and weight gain; obesity related co-morbidities of T2DM and T2DM therapies associated with increased weight. The result of that research was that weight reduction improved glycemic control in T2DM patients and decreased the risk of T2DM. The authors used some search terms such as diabetes mellitus type 2 (DMT2), obesity and diabetes, weight gain and diabetes, obesity and diabetes, weight gain and diabetes, diabetes related associated mortality, weight loss, and benefits of weight loss and diabetes. Other important issues explained by the authors were the association between body weight and cardiovascular morbidity and mortality and association between obesity and cancer.

Claessens, Baak, Monsheimer, & Saris, (2009) are the authors of “The effect of a low-fat, high-protein and high-carbohydrate diet on weight loss maintenance and metabolic risk factors”. The authors explained the role of low carbohydrate and high protein in preventing and reducing weight gain. The subjects were 60 obese patients, with a body mass index (BMI) of more than 27kg/m2 from both genders (male and female) aged between 30 to 60 years old. These subjects completed medical screening examinations, including a medical history, routine physical examination and a fasting blood sample. Subjects had to be weight stable over the past 2 months before being included in the experiment. This was an experimental design. Subjects with similar BMI, age and gender, were randomly assigned to the high carbohydrate (HC), high protein (HP). The subjects each followed a diet with specific calories for a number of weeks. Measurement was done using anthropometric measure which is using the same decimal scale throughout the study. Blood sample analysis and some other investigations were done during the study which included fasting blood sample and glucose, insulin, glucagon, leptin, adiponectin, free fatty acids and hemoglobin A1C analysis. Other
methods were dietary compliance, physical activity and statistical analysis. The result of the study showed that low-fat, high protein and low carbohydrates is more effective for weight control more than low fat, High carbohydrate diets.

Boylan, (2007) the author of ”Dietary and life style factors in the management of type 2 diabetes mellitus” explained three important issues: fat distribution patterns, weight measurement and weight management. In fat distribution patterns, the author explains dangerous areas of accumulated adipose tissues in males which are in the abdomen and in women which is around the hips and thighs. These areas are near to the liver which is the most metabolic active area. Another issue noted by Boylan, (2009) is weight measurement which includes BMI, waist circumference and waist to hip ratio. The normal value of BMI should be 18.5 to 24.9 and more than that becomes indicator of unhealthy weight. The second measurement of weight is waist circumference. For men, 100 cm or more indicate a risk of Diabetes Mellitus (DM). In women, a waist circumference more than 90 cm or a waist to hip ratio of more than 0.85 is an indicator of risk for DM. The authors note that the waist to hip ratio is a very believable measurement. The last issue explained by the author is weight management which includes dietary interventions and exercise. Boylan, (2007) explained about dietary interventions in which diet or meals should be agreed by the health guidelines and by the patient. The author mentions the amount of each material should include in the diet. The author explained study done in 2004 for 66 obese patients. These people ate food but with limited account of proteins, carbohydrates, saturated fat, unsaturated fat and fibers. The result of this study was weight loss over different numbers of weeks. Then the author recommended low fat and high fat diets and explains the amount of nutrients. The last thing recommended by the author is exercise connected with diet. Exercise is important in maintaining weight for a long time. The author ends the article by important recommendations which is the health care providers should educate the patient about lifestyle changes and healthy diet.

Discussion:
Information obtained in the literature review showed that obesity and overweight cause diabetes, which is a serious indicator for getting T2DM because of changes in lifestyle, which in turn results in bad eating habits. Regarding Qatari society, the most common reason for developing DM is obesity which comes from poor nutrition habits such as eating food with high calories and less physical movement. Ross et al (2011), did not address detail the fact that increased calories, carbohydrates and saturated fats are considered a first indicator of T2DM, but they agreed with other authors that obesity is caused by different lifestyle changes which lead to the acquisition of poor eating habits. Claessens et al (2009) conducted study measuring the weight of a random collection of people of both genders with excessive weight gain after they followed specific diets. In this study increasing the proportion of protein to replace carbohydrates may have played a significant role in reducing the subjects’ weight. Boylan (2007) agreed with Claessens et al (2009) that the solution lies in reducing the obesity rate by reducing the proportion of saturated fats and replacing it with unsaturated fat or low fat. The author stated percentages for each of the nutrients. The author conducted a study which found that a group of subjects who consumed less carbohydrates and saturated fat actually decreased their weight significantly and over sustained periods. Regarding Qatari society, some people follow a diet based on international recommendations and decisions similar to those in the second and third articles where reduce the carbohydrates and increase the proportion of protein. This is an ideal solution to the problem. Ross et al (2011), stated that there are other factors leading to weight gain, not only a pattern of bad diet, but because sometimes drugs are taken by the diabetic patients which lead to weight gain. This is a side effect of hypoglycemic agents. Claessens et al (2009), stated that physical activity must be constantly linked to healthy diet which will maintain the weight loss over a long time. The diabetic patients should count the total number of calories rather than the source of carbohydrates. Boylan, (2007) agreed with Claessens et al (2009) that maintaining physical activity with diet is an integral part of the non-pharmacological treatment for diabetes. The patients must focus on the total calories rather than the source of the carbohydrates. Most Qatari people take medication to keep
the blood sugar within low normal range as well as a healthy diet, but they do not include the
physical activity as part of the treatment plan. Many of them choose surgical procedures such as
gastric banding surgery to lose weight.

**Conclusion:**

In conclusion, diabetes is a chronic disease and excessive weight gain of the reasons behind the
diabetes type 2. There are some main issues lead to diabetes which are dietary factors include
changed life style for many people reach these people to eat rich food with calories. On the other
hand, some people don’t have enough knowledge about healthy food and un healthy food. In
addition, more responsibilities with work overload lead to stress which reach to diabetes. if one of
the parents of siblings suffer from diabetes also the person has chance to get diabetes due to
hereditary factor. People 40 years and above have a higher risk to get diabetes than others. The
literature review describes the importance of reducing weight with emphasize on a healthy diet in
conjunction with ongoing exercise. Literature review clarified the specific amount should be taken by
the person from each type of food, effect of weight change on the management of T2DM, weight
management and weight measurement and the person should focus on the total amount of calories
rather than the source of carbohydrates. A large proportion of Qatari people all not able to continue
a healthy diet and lack physical exercise, so some of them resort to surgical procedures.

**Recommendations:**

Several recommendations can be made. These include following a diet focusing overall on the
total number of calories rather than on the source of carbohydrates; increasing amount of protein;
reducing the amount of carbohydrates and saturated fats; increasing awareness about diabetes by
giving health education for public. Carbohydrate food should reach a maximum limit per meal, focus
on the serving size and total amount of carbohydrate per serving on the food label, most men need
60- 75g of carbohydrate per meal, and most women need 45- 60g per meal. Physical activity should
be maintained among the daily living for half an hour per day. Increasing the weight should be observed by the nurse in each patients’ visit. These are recommended by scientific experiments, practical and WHO guidelines all over the world.

References:


Minimizing discharge against medical advice (DAMA) by Fatemeh Zandavi

Introduction

Discharge against medical advice is a situation in which the patient leaves the hospital without physician’s order or permission while the patient is not medically fit for discharge. DAMA is an undesirable but relatively common occurrence. It is very important to minimize and prevent DAMA because it will affect the patient health, lead to readmission, longer hospital stay and a higher cost of care. Occurrence of DAMA can be affected by so many issues.

Personal/Social Factors

Refusing admission and investigation because the family want to consult a private clinic are one of the most common personal/ social factors which lead to DAMA. Other social factors are that Parents feel that patient is recovered and doesn’t need hospital care any more, Having other kids to take care at home, Anxiety which is resulted from lack of education and knowledge about medical procedure/treatment/complications, Sickness or death of significant other, Having appointment (Bank, travel, wedding) or Parents are afraid to stay in the hospital for long time which is related to lack of proper communication between the parents and the healthcare providers.

Environmental Factors

Presence of some communicable disease & lack of private rooms, Crowdedness, noise, alarms and staff chatting, lack of cleanliness, privacy reasons and presence of curtains only between the patients are some of the most common environmental factors which result in DAMA.

Service Factors

Dissatisfaction with physician's treatment and nursing care because the physician is junior or the nurse is not confident or expert in her work, presence of language barrier, Not informing the parents about the expected results of the care, lack of communication between the health care providers and the family and lack of education being provided by the healthcare providers are some of the
service factors which lead to DAMA. Also prolonged waiting for transport or admission to other facilities due to unavailability of private room, bed crisis and presence of other patients who need urgent admission will lead the parents to decide to go home without permission.

**Financial factors**

Lack of health insurance and financial support also are one of the financial reasons which lead the DAMA to occur.

All the above mentioned issues are resulting in DAMA. This paper focus on the service factors which lead to DAMA.

**Literature review**

The study "Clinical spectrum of discharges against medical advice in a developing country" by A. Abdulrasheed and O. Misbaudeen (2008) describes the spectrum of patients who are discharged against medical advice (DAMA) in a Nigerian teaching hospital.

This prospective study was conducted over 24 months from January 2004 to December 2005, at the surgical emergency room of the University of Teaching Hospital. The subjects included consecutive surgical patients who were discharged against medical advice. Data was collected according to standard checklist include d: age, gender, diagnosis, managing unit, and length of stay in the hospital, discharge date, reason for DAMA and signatory to discharge. Analysis of the data was done using Statistical Package for Social Sciences (SPSS) version 11 which is a computer program used for survey authoring and deployment, data mining, statistical analysis, and collaboration.

Prevalence rate of DAMA was 4.2%, comprising 110 of a total of 2,617 patients admitted during the study period. Male to female ratio was 3.8:1; the mean age was 30 years (range, 4 – 70 years). Trauma was the most common clinical condition for patients who DAMA. Most common reason for DAMA was to seek alternate treatment followed by financial constraint. The mean duration of
hospitalization was 53.4 hours. Reasons given for DAMA were to seek alternative medical care 48 (43.6%), financial difficulties 32 (29.1%), dissatisfaction with hospital facilities/services 8 (7.3%), disagrees with planned treatment 3 (2.7%), prefers treatment close to relative 7 (6.4%), transfer to another hospital 6 (5.5%), to complete police investigation 1 (0.9%) and non specific 12 (10.9%). In this study, some cases of DAMA were attributable to the patient's disagreements with planned treatment and dissatisfaction with hospital facilities. Health workers often face some difficulty in patient care attributable to limited facilities, being understaffed, busy schedules and uncooperative attitude and uneducated caregivers.

The reasons for DAMA have also been discussed by Onukwugha, Saunders, Mullins, Pradel, Zuckerman & Weir (2011) in "Reasons for discharges against medical advice: a qualitative study".

The purpose of this study was to identify the reasons for DAMA among patients admitted to the medicine service at a large urban teaching hospital in Maryland from a variety of perspectives. A secondary objective was to compare and contrast stated reasons for DAMA and the suggested solutions, as offered by patients, physicians, nurses and social workers. The study was a qualitative study. Healthcare providers and patients were recruited to participate in focus-group interviews (FGIs) to discuss why patients leave hospital against medical advice.

A total of five FGIs were held: three patient-only groups, one physician-only group and one nurse/social worker group. Participant recruitment to the patient FGI was based on an initial invitation letter. General announcement posters were placed in common areas throughout the hospital inviting providers to participate in the FGI. Hospital discharge data available for analysis was limited to patients aged 18 years or older who left against medical advice between July 2006 and June 2008. The methodological framework to develop a topic guide was based on the cognitive constructs (perceived susceptibility to health consequences due to DAMA, perceived severity of health consequences due to DAMA, benefits and costs of DAMA) of the Health Belief Model (HBM) which is a psychological model that attempts to explain and predict health behaviors by focusing on
the attitudes and beliefs of the individuals. This topic guide was reviewed by clinicians, a hospital administrator and a health services researcher trained in qualitative analysis, and was modified as needed to direct the conversation. Each FGI lasted approximately 1 hour with the provider groups held in a convenient hospital location. The patient FGIs were held in a university facility to minimize patient discomfort, given the interview topic. All participants were informed that the discussion would be audio-recorded and that the transcription would be verbatim, anonymous and confidential and each participant verbally agreed to these conditions.

Eighteen patients, 5 physicians, 6 nurses and 4 social workers participated in the FGIs. Seven themes emerged across the separate patient, doctor, nurse/social worker FGIs of reasons why patient leave against medical advice: (1) drug addiction, (2) pain management, (3) external obligations, (4) wait time, (5) doctor's bedside manner, (6) teaching hospital setting and (7) communication. Solutions to tackle DAMA identified by participants revolved mainly around enhanced communication and provide education.

Reasons for discharge against medical advice have also been examined by Roodpayma & Hoseyni (2010) in "Discharge of children from hospital against medical advice". In this study, authors explored the prevalence of DAMA and examined the reasons for DAMA provided by parents.

The method of this study is a cross-sectional descriptive study on DAMA which was conducted from March 2005 to February 2007 in the pediatric ward of Taleghani hospital in Tehran, Iran. All patients, when their parents signed the DAMA form, were included in the study. Clinical data was obtained by chart review performed by one investigator. Before leaving the hospital, the parents were interviewed to complete a structured questionnaire by a staff nurse. The questionnaire contained 10 items: patient's name, age, gender, number of children in the family, admitted from Taleghani outpatient department or referred from another hospital, possession of health insurance, parent's education, parent's jobs, duration in the ward, and the primary reason for DAMA.
Subsequent examination of the completed questionnaires revealed that the reasons for DAMA could be classified into 4 categories: 1) perceived improvement of the child illness, 2) unsatisfactory treatment and care, 3) inconvenience for child hospitalization, 4) financial problems. The data were analyzed by the SPSS software and the frequency and percentage of variables were calculated.

As a result of this study, 1842 patients were discharged from the pediatric ward of Taleghani medical center within the study period, in which 97 were discharged against medical advice. Of the 97 patients, 55 were male and 42 were female aged from 1 day to 8 years, including 57 newborns. Forty-seven of the patients were referred from another hospital, and the others were admitted directly from the outpatient clinic. The results showed that the most common reason cited by the parents for DAMA was perceived improvement of the child's illness. Unsatisfactory treatment and care was the second most common reason cited by the parents. Inconvenience for child hospitalization was the third most common reason and the financial problems were the last reason for DAMA in this study.

Discussion

In pediatric patients the decision for DAMA is made by parents. It has been found in Pediatric Emergency Center (PEC) in Qatar that one of the most common reasons for DAMA is that the parents think the child's health condition is improved and there is no need to continue the treatment and the medical care in the hospital. According to Roodpeyma & Hoseyni (2010), the most common reason cited by parents for DAMA in children hospital was that the parents assessed that their babies were well enough to be released, and most of babies were newborns that had undergone sepsis treatment. The study suggested that there is a need for improved communication between patients and health team. Improved communication will clarify or reduce misconception and adverse attitude that sometimes lead to refusal of life-saving therapy.
Other reasons which were noticed to be a strong reason to result in DAMA in PEC were the dissatisfaction with the hospital facilities such as: lack of sufficient resting areas for mothers who newly delivered presence of curtains only between the patients, crowdedness of the emergency department and being understaffed.

Based on the result of Nasir & Babalola's study (2008), "Some cases of DAMA were attributable to patient’s disagreements with planned treatments and dissatisfaction with hospital facilities. Health workers often face some difficulty in patients care attributable to limited facilities, being understaffed, busy schedules and uncooperative attitude and uneducated caregivers. This may lead to the disagreement and dissatisfaction" (p.71).

Also in Roodpeyma & Hoseyni (2010), unsatisfactory treatment and care was the second common reason cited by the parents of children. Frequently communication between physicians and parents was inadequate, so the parents often complained of insufficient care and treatment given to their children.

The experience at PEC in Qatar has shown that another common reasons for DAMA is the prolongation of waiting time to be transferred or admitted to other facilities due to unavailability of private room while parents requesting it, bed crisis, presence of other more sick patients who needs to be admitted first and delay in releasing blood result especially in newborn cases with sepsis which they are supposed to be hospitalized at least for 72 hours till the culture results will be released.

In the study of Onukwugha et al (2011), it was reported by patients, doctors, nurses and social workers that patients left against medical advice because they did not expect an extended hospital stay, the test results were not coming back soon enough, or the doctor was taking too long to conference with the patient. The study suggested that the providers should communicate to the patients a prospective timeline of the treatment course during the hospital stay and they should
preemptively provide information about test and procedures that are likely to be ordered for the patient in order to manage or minimize DAMA.

Based on observation In PEC of Qatar, lack of communication between the patient and the health care workers were also one of reason to lead the parents to sign DAMA. In PEC also observed that one of the communication problems is that the staff they are not introducing themselves to the patient’s parents and they are not establishing any friendliness relation with them.

In Onukwugha et al (2011), two types of communication were identified as reasons for DAMA. First, there was a communication difficulty between providers. For example, patients and providers report that patients became frustrated by inconsistent messages from doctors and nurses. The second communication difficulty was between providers and patients. For example providers report that patient do not understand the severity of their illness when making the decision to leave against medical advice, while patients report that providers use words that are hard to understand. The actionable solutions of the study included: communicating with the patient in an empathetic tone and using lay English terms, nurses attending the patient-doctor consultation, educating physicians about the results from research on DAMA, providing physician education about strategies for communicating with patients likely to leave against medical advice and physician education about the consequences of leaving against medical advice. One of the reasons for communication difficulty is the language barrier. In Hamad Medical Corporation (HMC) the language barrier problem were solved through creating a language bank which consist of some staff with language skills that helps patients who need translation or interpretation.

**Conclusion**

Based on the literature reviewed and the discussion it is reasonable to conclude that there are many factors which lead the patient to decide to leave the hospital before clinician certification of fitness. These include financial, personal/social, environmental and service factors. In this paper the
service factors were discussed. Managing or minimizing DAMA is very important because it is associated with patient morbidity, risk for hospital readmission and prolonged hospitalization.

DAMA can be prevented through improving communication between patients and healthcare team which will reduce misconceptions that lead to DAMA. In the pediatric ward, the parents should be clearly informed about the consequences of being DAMA and the chance of the readmission. During the conversation with the patient the healthcare team should avoid using medical terminology because not all patients or parents are educated. Therefore, the healthcare providers should come down to the level of the patient. Also clear information should be provided to the patient about the treatment, tests, procedures that are likely to be ordered for the patient and the expected length of the stay in the hospital. In Onukwugha et al (2011), one of the solutions which were recommended to decrease the DAMA was that the providers should communicate to the patients a prospective timeline of the treatment course during the hospital stay.

Also, maintaining effective communication between the patient and healthcare team will lead to decrease the dissatisfaction from the service or the facility. The result of Roodpeyma & Hoseyni's study (2010) shown that the majority of DAMA cases could have been prevented by more satisfactory facilities and effective communication between medical staff and parents or the patients and "more effective communication is required between physicians and the parents, so that we might avoid part of early discharges and prevent the potential damages to the health of the children" (p.356).

**Recommendation**

As mentioned earlier DAMA is a serious concern therefore solving this concern will help in improving the patient's health, preventing the patient's readmission and prolonged hospitalization. Solutions such as improving communication skills of the nurses and the health care team through holding classes about communication methods and teaching the staff about the culture and the language of the country and using language bank help for non English and non Arabic speakers is one
of the other most important recommendations which help in improving effective communication in order to reduce the incidence of DAMA.

One of the reason for DAMA is the lack of knowledge therefore this issue can be solved through Informing the patient about a prospective timeline of the treatment course during the hospital stay, treatment, tests and procedures that are likely to be ordered for the patient and the expected length of the stay in the hospital which all are applicable and recommended in PEC in QATAR in order to minimize DAMA cases. Also providing more satisfactory facilities such as: Expanding the unit and providing more rest areas for newly delivered mothers and providing more privacy are one of the recommendations because the pediatric emergency center is short of such facilities. Finally, continuous public education about the consequences of being DAMA and it's effect on the patient's health and using language bank which is already implemented in PEC in Qatar for educating non English and non Arabic speakers patients will be another suitable recommendation to minimize or manage DAMA.

References


Preventing Medication Errors by Hendeh Zirak

Introduction

Medication error is a significant issue that happens frequently in the health care system. It can occur as a result of an error by nurses, pharmacists, or physicians. All health care providers must avoid medication errors in their clinical practice, because it harms patients and it may have a bad outcome for the professional who made the medication error. All medication should be handled safely by health care providers and any medication error should be resolved immediately, because some medications can seriously affect the patient’s life. This topic is very important in the nursing field all over the world, because nurses always administer medications to patients. Nurses in Qatar should be practicing safe medication administration to ensure patient safety, provide patient satisfaction and high quality of care. It contributes to a trusting relationship between nurse and patient.

Issues

Issues related to medication error are many. Physician issues include wrong medication prescription, for example; instead of 5 mg written order is 50mg. Wrong diagnosis of patient and prescribing medicine based on that diagnosis are another physician related issues that lead to medication error. Wrong preparation or supply from pharmacy, for example; supplying Vitamin D instead of one-alpha Vitamin D is pharmacist related issue. Wrong labeling on the medication about patient information and medication is also contributing factor for medication error.

In this literature review, the focus is on issues related to nursing. Transcription of medicine on medication profile is one of the nursing issues. Nurses usually do mistakes in transcribing orders as a result of unclear physician's handwriting, for example; instead of writing frequency of 6 hourly, nurse writes 8 hourly on medication profile. Incorrect recopying of medicine from old medication profile to new one is also transcribing error. Administration of drug to wrong to patient due to
improper identification of patient is another contributing factor for medication error. Nurses’ lack of pharmacology knowledge and wrong dose calculation due to poor mathematical skills result in medication error. Nurses’ workload by handling critical and chronic patients in a shift, receiving admissions, and procedures create stressful environment which leads to medication error. Improper checking of medicine with other registered nurse, and nurses failure in three checks in medication administration (before preparing medicine, while preparing it, and before giving to patient) are also nursing issues in medication error. Confusion in look alike, sound alike medications, for example; cefotaxime and cefuroxime cause nurses to create medication errors.

**Literature Review**

The study "A prospective observational study of medication errors in a tertiary care emergency department" by Patanwala, Warholak, Sanders and Erstad (2010), described the severity and contributing factors of medication error in emergency department.

This was the first study done through direct observation for medication error in the emergency department. The goal of the study was to determine the rate and severity of medication errors and factors associated with the risk of medication errors. The study was conducted over nine months.

The method of the study was a prospective observational study with a pharmacist with specialized training in emergency medicine as the observer. All participants in this study were eligible nurses who were interested in participating in this study signed the consent voluntarily. The study was done within 28 shifts. Each shift was 12 hours long including days and nights, so total time of observation was 336 hours. During each shift, the pharmacist followed only one nurse who participated in this study.

The observer reported 178 medication errors in 192 patients who were being cared during this study period. Errors included all phases: prescribing medicine, transcribing medicine, dispensing medicine, and administering medicine. Among all these phases, errors during prescribing and
administering phases are more frequent. There was no medication error in this study that caused permanent harm to the patient or prolonged hospitalization. The observer interfered with those drugs that could result in permanent harm to the patient. The observer found difficulty in following the nurse while administering medication rather than prescribing and transcribing medicine due to the busy environment in emergency department. In this study, contributing factors for medication errors were increased number of patient staying in emergency department, increased number of medications ordered or administered, and part-time nursing status.

The issues of medication error have also been researched by Kim, Kwon, Kim and Cho (2011) in Nurses perception of medication errors and their contributing factors in South Korea.

The purpose of this study was to identify types of medication error in nursing practice, factors contributing to medication errors, and nurses’ perception of medication errors and reporting of errors.

This was a cross sectional descriptive study completed in one month. Criteria for choosing the sample were nurses with a minimum of one year clinical experience in a hospital. Nurses were selected from four teaching hospitals, two private hospitals and one government hospital in South Korea. The questionnaire was completed by a provider for total of 330 participants. The components of the questionnaire were: 1. demographic data, 2. the nature of medication errors, 3. contributing factors, 4. consequences of medication error, and 5. nurses perception of preventing medication error.

Two-thirds of participants reported medication errors. Most of the medication errors occurred during intravenous administration, on day shift, and included wrong dose, wrong prescription, wrong drug, and wrong time. Participants reported contributing factors for medication error were unfamiliarity with medicine, advanced drug preparation, administration without rechecking, nurse workload, miscommunication while conveying verbal orders, miscommunication among clinicians’,
and lack of alertness while checking prescription. Nineteen percent of participants did not report the medication error to anyone. The reasons of non-reporting medication error were fear of punishment, lack of awareness in importance of reporting medication error, and cover up for a colleague. Participants suggested strategies to prevent medication errors that include: continuous monitoring of nurses in following 5 rights in medication (right medication, right dose, right patient, right route, and right time), avoiding too long shifts, providing breaks, and preparing and administering medication at a same time.

Medication error has also examined by Winterstein et al (2004) in "Nature and causes of clinically significant medication errors in a tertiary care hospitals".

In this study, authors explored the prevalence and causes of medication error in general medicine and specialty units in a tertiary care hospital over a 12 week period. The areas of study were: adult medical and surgical, medical hematology and oncology, bone marrow transplantation, and medical and cardiac ICUs.

This study was qualitative with eight reporters chosen including 4 pharmacists, 2 clinicians, 1 nurse, and 1 physician assistant. They were provided with personal digital assistants (PDAs) for easy data collection and then data were downloaded by MS access (Microsoft, Redmond, WA) and reviewed by the investigator.

As a result of this study, most medication errors reported were by pharmacists, followed by nurse, physician assistant, and physician reports. Anti-infective drugs were the most reported medication errors, followed by Central Nervous System (CNS) agents, unclassified agents, and blood formation and coagulation products. Most of medication errors occurred in the prescribing phase, followed by administering, dispensing, and transcribing phases. Factors associated with medication errors in this study were identified as the following: lack of knowledge in dosage and selection of anti-infective drugs, failure in including recent laboratory results (renal function test, blood cultures) to decide
dosage and types of anti-infective drugs, and lack of knowledge in dosage and selecting CNS drugs. Low doses of medication errors resulted in uncontrolled infections. High doses of medication errors resulted in renal failure due to prescribing overdoses of anti-infective drugs, and central nervous system drug intoxication.

Discussion

In the study by Kim, Kwon, Kim, and Cho (2011), it has shown that most of medication errors occurred in day time. They might arise because this shift is the busy time and nurses’ workloads are heavy. Based on observation in Hamad General Hospital, most of the diagnostic procedures, physician’s round, physician’s order, and discharging patients are done in day shift. They increase nursing workload and contribute to medication errors. One of the contributing factors for medication error in this study was advanced drug preparation.

On the other hand, this study shows that wrong dose, wrong drug, and wrong timing were parts of medication errors. These types of medication errors occurred as a result of not following the five rights in medication administration, which include right drug, right dose, right patient, right time, and right route. In addition to those five rights, nurses in Hamad General Hospital have to follow two more rights which are right to refuse and right to educate as per hospital policy. Providing health education to the patients is very important in preventing medication errors. Awareness of the patients about the right time to take the medication prevents drug-food interaction.

The studies by Winterstein et al (2004) and Patanwala, Warholak, Sanders and Erstad (2010), showed that medication errors occurred in transcribing phase. Transcribing errors could be as a result of unclear physician’s order, or confusion in sound-alike medications. Computerized physician order entry (CPOE) can help in decreasing transcribing medication errors.

Conclusion
Medication error is a significant issue in the health care system and can seriously affect the patient’s life and should be prevented in order to improve patient safety. Medication errors occur by wrong prescription, wrong dispensing, wrong prescribing, wrong transcribing, and wrong administering of medications. Errors of prescription are caused by physicians in writing medication order. Errors by pharmacists result in dispensing errors in preparing the medications and distributing them to different units of the hospital. Errors of transcription and administration of medications relates to nursing issues. Nurses’ mistakes in wrong patient, wrong dose, wrong drug, wrong time, and wrong route cause medication errors. Strategies should be used to prevent medication errors. Providing regular courses for nurses and by the clinical instructor about safety in medication administration, updating them with policies and protocols improve nurse’s knowledge in medication administration. Keeping drug guide books in the units and encouraging nurses to refer to them increase their pharmacology knowledge. In case of unfamiliarity with any drug nurses can contact drug information unit to get detail information in medication. Electronic access to drug information is very fast and saves nurse’s time in getting information. Rechecking 24 hours of orders by the nurses and charge nurses of night shifts helps in correction of missing or wrong transcription. By CPOE, physician’s order will be clear and easy to transcribe, unlike prescribing by handwritten. Providing health education to the patients regarding their medications increases patients’ awareness in medications and decreases medication errors. Providing more nurses for the units of hospitals decreases nurses workload and helps in decreasing medication errors.

**Recommendation**

All of the solutions and strategies for preventing medication errors that mentioned in conclusion are applicable in hospitals in Qatar. Providing educational courses by nursing educators and clinical instructors for nurses in safe medication administration increase their knowledge and update them by new policies and competencies in medication administration. Educational courses can be arranged through director of nursing and head nurses. Educating patients about name of the
medications, dose, time, route, and frequency increase patients’ awareness in their own medications. Encouraging nurses to refer to micromedix which is electronic access to drug information and using drug guide books increase nurses’ pharmacology knowledge. Contacting drug information department in order to get detail information is also helpful. Providing more staff nurses for all the units decreases nurse workload, therefore nurses can handle less patients, less procedures and it helps in decreasing incident of medication error. Head nurses with help of director of nursing can seek more staffs for the department through nursing administrator. 24 hours rechecking of orders in patients’ file by nurses helps in correction of mistakes in transcribing errors. CPOE is a good solution in helping nurses to have clear orders and prevents transcribing errors.

References
