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Research Article

A Cardiology Director's Novel, early in the Morning Targeted ICU and Wards Round, as a Preparation of the Main Round Nurses' Response to this Innovation

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Abstract

Introduction: The value of every day multidisciplinary ward round in Hospital Departments is well established, as it improves patients' life quality and expectancy and promotes nurse-doctor relationship. However, an early in morning targeted ward round as a preparation for the main round, has not been studied.

Aim: The evaluation by the ICU and ward nurses of the novel action of the cardiology director to have early in the morning briefing, commencing at 6:20am. with the nurses and a subsequent targeted ICU and wards round.

Methodology: A questionnaire comprising 12 questions was distributed among 190 nurses working at Larnaca Hospital Departments. The questions concerned gender, age group and department of work. A Likert scale of 5 grades involved the following questions: Nurses were asked whether this novel, targeted, early in the morning round pleased them or not, pleased the patients or not, whether it was useful for nurses or not, whether it was useful for patients or not, whether it contributed to early clinical problems solution or not, whether it improved the psychological status of patients or not, whether it was complementary to the information given to patients or not and whether nurses would like to see this action be continued or not. Statistical analysis was carried out with Excel data basis and SPSS system. Chi squared techniques were applied and a statistical level of $p<0.05$ was considered significant.

Result: From 190 distributed questionnaires 161 (84.7%), 110 female (68.75%) and 51 male (31.25%) were completed. No trend among answers was observed, as far as gender, pleasure or usefulness for nurses or for patients are concerned, regarding age groups of nurses. Nurses of the cardiology and other wards were more pleased by the morning briefing/targeted round, compared to ICU nurses, p=0.002, considered the morning round more useful for themselves compared to ICU nurses, p=0.047, accepted that from this early round additional information was passed on to the patients compared to the nurses of the ICU, p=0.07 and considered this round more useful for patients compared to the consideration of ICU nurses, p=0.043. Nurses aged >31y stated that patients' psychology improved with this early round, compared with nurses aged < 30y, p=0.004 and admitted that this early round added to patients' information more, compared to those with age< 30y, p=0.018. A hundred and forty-six (90.63%) of the nurses would like to see this early round to be continued, one (0.62%) to see it stopped and 14 (8.75%) do not care with continuation or not of it.

Conclusion: ICU and wards nurses generally endorsed the early in the morning briefing/targeted round carried out by the cardiology director. However, the frequencies of the nurses' answers concerning pleasure or usefulness derived for them or for the patients, between ICU and ward nurses were in the ICU less (p=0.002, p=0.047). The frequencies of nurses' answers aged >31y and <30y, concerning improvement of patients' psychology or complementary information provided to patients with the round, were more in those > 31y (p=0.004, p=0.018). Nurses may have cooperated well with the director of cardiology because this innovation reflects their values of providing the best and most timely care for patients. Nurses may have accepted him with leadership characteristics, independently of his ranking, given that nurses are not under his command.

Keywords: Cardiology director; Intensive care unit; Leadership; Nurse; Physician-Nurse Relationship; Ward round

Introduction

The morning ward round of doctors and nurses collaborating in a team in Hospital Departments is an established practice and the roles of each member of this team have been studied [1-3]. The usefulness of the ward round both for patients and the team itself, has

been demonstrated for intensive care units (ICUs) [4], internal medicine departments [5], cardiology departments [6], surgical departments [7,8], orthopedics departments [9], emergency departments [10] and cardiac surgery departments [11]. There is, however, an opposite approach to the value of the daily multidisciplinary round [12]. Patients themselves enjoy the daily group visit and appreciate the time spent with them [13]. Round team with participation of physicians, nurses, clinical pharmacists, physiotherapists, speech and language therapists, results in a reduction of in-hospital mortality, improvement in life quality and increase in life expectancy [6,14]. In ICUs, approaching critically ill patients with the multidisciplinary team model reduces the length of hospital stay, decreases overall in-hospital time and reduces costs [4]. With daily multidisciplinary ward rounds, participating physician's nurses and pharmacists in an internal medicine department, a reduction in the weighted incidence of adverse drug events, diabetes mellitus dysregulation, nosocomial infections, bedsores, falls, thromboembolic events, acute renal failure was found [15]. Structured multidisciplinary ward round had also a positive effect on team member collaboration [16]. Nurse-physician relationships have been previously studied [16]. When good communication between them exists, professional satisfaction of both groups increases in a mutual way, as well as understanding of each other [17,18]. Literature classifies professional relationship of these two groups, in five categories i.e., collegial relationship, collaborative relationship, teacher-student relationship, friendly guest relationship and aggressive relationship [19]. What is most important in the care of ICU patients is neither what is best for the physician, nor what is most convenient for the nurse, nor what promotes research, but what is beneficial for the patient [19]. The existence of competition in nurse-physician relationship is not very different from the competition in society [20].

Most papers deal with nurses commenting on medical actions and their job-related relationship with physicians [19,21]. The outcomes of doctors' assessments, doctors-in-training and nurses working in ICUs regarding their collaborative work seem to diverge. Nurses and doctors found incomplete interpersonal communication and imperfect neutralization of conflicts when arose. A possible explanation for the above might be differences of authority, responsibility, gender, education, medical and nursing cultures [22]. In internal medicine wards nurses described teamwork with physicians as suboptimal, whereas physicians rated the quality of their teamwork with nurses favourably [16]. Lower levels of collaboration between nurses and physicians have been reported, both in Italy and Greece, compared to other European countries [21]. In Cyprus public hospitals low levels of nurse-physician collaboration and moderate levels of nurse autonomy were reported [23]. To avoid creating harmful stress, it is necessary to properly manage and neutralize conflicts [24]. In the nurse-physician relationship does the concept of "leadership" apply? A leader is an individual who skillfully uses his or her own interpersonal skills to influence others to achieve team goals [25].

If action and behavior contain vision, strategy, dedication to goals, interpersonal communication, self-discipline, honesty, reliability, endurance, logic, stability, this can be characterized as leadership [26]. Hersey and Blanchard emphasized what type of leadership should be applied, which should be proportional to the degree of employee's maturity [27]. French and Raven distinguished different forms of power: Legitimate power, related to the hierarchical position one holds in an organization, the higher the person is in the hierarchy the more legitimate power and authority he or she has. Reward power is reflected in the ability to award moral or economic benefits. The power of coercion relates to the possibility of imposing punishment for inappropriate behaviour or not meeting deadlines or exceeding an agreed budget. The power of the expert is based on the possession of expertise related to the individual's technical, communication, or negotiation skills. The power of a personality reflects the power that other people grant to someone because of his or her particular personal characteristics [28]. Legitimate authority is applied when dysfunctional problems occur, while expert authority is applied where the organization's orientation is quality oriented [29]. Interpreting the above, one may accept that leadership behaviour can be manifested from both doctors and nurses. These two professional groups share the same goals and are inspired by the same values, which aim to diagnose, treat, relieve, monitor and support the suffering fellow human being [30]. Dedication to these values possibly counteracts potential disadvantages of the separate administration of physicians from nurses in Cyprus public hospitals (2017-18) [31].

Purpose

This study focused on nurses' view on a novel, early in the morning briefing /targeted round to ICU and wards by cardiology director. The topic was chosen due to its originality and the importance of re-addressing the relationship between physicians and nurses.

Material and Method

Population

The Director of the Cardiology Department begins work at 06:20a.m. having a briefing with the night shift's nurses and carrying out a targeted ward round. The main round begins at 08.30am. This innovation commenced in March 2015. A search in the literature was conducted without identifying articles related to an early in morning medical round (5/5/2018). The search involved PubMed, ProQuest, and Cochrane databases, and the entries used were: "early ward round", "very early ward round", "morning round". The usefulness of this was assessed by answering a structured, anonymous, twelve-question questionnaire provided to nurses where cardiac patients were accommodated, as ICU, cardiology and occasionally internal medicine, nephrology, surgery, orthopedics' and gynecology wards, where cardiology patients may be accommodated, when cardiology beds were not available, subject to safety regulations. The ICU, as it was operating at the time of study (2017-2018) in Larnaca General Hospital was of open type. Patients were not participating in this study. The total of completed questionnaires collected was 161, (84.7%) of total 190 distributed. Twenty-0ne (13.04%) nurses were working in ICU, 23(14.28%) in cardiology or internal medicine ward and 116(72.04%) in surgical, orthopedic, nephrology and Gynecology wards.

Means used

The tool utilized was a two-page structured questionnaire written by the author. Written permission was obtained from the Cyprus Bioethics Committee (5/1/2018) and the Cyprus Scientific Research Committee of the Ministry of Health (2/2/2018). The questionnaire consisted of twelve closed-ended questions. Questions 4 to12 had five response ratings according to the Likert scale. Question 1 referred to the gender of the nurses, question 2 to their classification into four age groups <30, 31-40, 41-50, >51 years and question 3 to their workplace, ICU, cardiac or other wards. Questions 4 and 5 were about whether the morning briefing/targeted round pleases or annoys the nurse or the patients, respectively. Six and 7 were about the round's usefulness or not to the nurses or to the patients, respectively. Question 8 was about whether early round offered early settlement or not of patients' health issues, question 9 referred to any positive effect or not on patients' psychology, question 10 on whether or not the patients benefit from the additional/repeat information they get, eleven on the potential benefit to patients, and 12 whether or not the nurses would prefer innovation continuation. The questionnaires, together with a cover letter explaining the purpose of the study, accompanied by an empty envelope were placed in nurse offices where they could collect them. It was requested questionnaire to be answered during their free time.

Data collection and analysis

A total of 161 questionnaires were collected all being valid. The responses were entered into an Excel system database and SPSS program and subjected to statistical processing to identify results with statistical significance. Data were processed using chi squared techniques and a level of statistical significance, $p<0.05$, was considered significant. The chi squared test was used as most variables were categorical (nominal) and some were ordinal. The reported test (chi squared) is appropriate for all categories of variables and since it does not assume normality, no Shapiro-Wilk test was needed to test for normality of variables.

Result

190 questionnaires were distributed in eight departments (thirty in ICU, 30 in cardiology and internal medicine wards, 16 in Gregorian ward, 30 in nephrology, 28 in surgery, 30 in orthopedics and 26 in gynecology wards), of which 161 were answered, a response rate of 84.7%. Distribution of responding nurses by gender: Female 110 and male 51, 68.75% and 31.25%, respectively. Classification of nurses into age groups: <30 23(14.28%), 31-40 78(48.44%), 41-50 36(22.36%), and >51 23(14.28%). Workplace of nurses: Twenty-one (13.04%) were working in ICU, 23 (14.28%) in cardiac or internal medicine and 116(72.04%) in the surgical, orthopaedic, nephrology, Gregorian, and gynecology wards. Nurses' views whether they were pleased or annoyed by the morning briefing/targeted round: Four (2.48%) responded that innovation bothers them, one (0.62%) it bothers them a lot, eight (4.97%) were indifferent, 77(48.45%) it pleases them, and 70(43.48%) it pleases them a lot. Nurses' views on whether patients are bothered or pleased by the morning briefing/targeted round: One, (0.62%) responded that it bothers him, 5(3.15%) were indifferent, 52(32.30%) were pleased, 103(63.98%) were very pleased. Nurses' views on the usefulness of the morning briefing/targeted visit for themselves: One (0.62%) responded as totally useless to him, five (3.11%) were indifferent to them, 74(46.58%) were useful to them and 80(49.69%) were very useful to them. Nurses' views on any harm or benefit to patients from the morning briefing/targeted visit: One (0.62%) responded that patients were harmed, three (1.86%) for patients it was not beneficial, 76(47.26%) patients were benefited, and 81(50.31%) patients were benefited a lot.

Nurses' views on whether or not clinical issues were resolved from the morning briefing/targeted round: Four (2.52%) responded negatively, 44(27.04%) responded with yes and 113(70.44%) that it settled pending issues early. Nurses' views on improvement in patients' psychology: Three (1.86%) responded there was no improvement, 9(5.59%) they found little improvement, 77(47.83%) found great improvement and 71(44.72%) found impressive improvement. Nurses' views on the benefit of completing or repeating patient information: Two (1.24%) responded that this was minimal, 9(5.59%) the benefit was small, 85(52.80%) benefit was great and 64(40.37%) the benefit was impressive. Nurses' views on possible benefit or not: Two (1.24%) responded that there was no benefit, 1(0.62%) was minimal, 6(5.59%) was some benefit, 83(51.55%) much benefit and 65(46.56%) very much benefit. Nurses' views on continuation or not of the novel round: One (0.62%) suggested to stop it, 14(8.75%) were indifferent to stopping or continuing it, and 146(90.63%) asked that the round to be continued.

Morning briefing/targeted round by the cardiology director pleased more the nurses of the cardiology/internal medicine/other wards, compared to ICU' nurses, $p=0.002$. This round was more helpful to nurses of the cardiology/internal medicine/other wards, compared to ICU' nurses, $p=0.047$. The early round improved patient psychology, according to nurses aged >31, then nurses aged <30, $p=0.004$. Morning round offered more in completing/repeating information on the patients' condition, according to nurses in cardiology/internal medicine/other wards, than ICU' nurses, $p=0.007$. Patients benefited more from information given to them by morning briefing/targeted round, according to nurses aged >31 compared to nurses aged <30, $p=0.018$. The early round provided more benefit to patients, according to nurses in cardiac/internal medicine/other wards, compared to ICU nurses, $p=0.043$. No statistically significant difference of any of the parameters was found. Regarding possible benefit or not for the patients from the morning briefing/targeted visit, no stratification of the answers in relation to the age of the respondents was found and all nurses regardless of age, accepted a great or very great benefit from it, $p>0.05$. Regarding workplace and whether the nurse was bothered or pleased by the briefing/targeted round, a stratification was found.

Nurses of the cardiac/internal medicine/other wards were in line, reporting higher frequencies of pleasure, compared to nurses of ICU, $p=0.002$. Regarding the workplace and the usefulness of the morning visit for nurses, a stratification was found. Nurses on the

cardiology/internal medicine/other wards were in line, reporting higher frequencies of usefulness, compared to ICU nurses, p=0.047. Nurses with age <30, presented with lower frequencies of utility in the answers on patient psychological status, p=0.004, and regarding additional or repeat information received from round, p=0.018, compared to the age groups >31. Regarding the nurses' workplace and in relation to benefit of additional or repeat information received by patients from the morning briefing/targeted visit, there was significant stratification. Nurses in cardiology/internal medicine/other wards showed higher frequencies of finding benefit than their ICU colleagues, p=0.007. Regarding the workplace and in relation to the degree of benefit to patients from the round, nurses in the cardiology/internal medicine/other wards, reported greater frequencies of benefit, compared to ICU nurses, p=0.043.

Discussion

The percentage of nurses who responded to the questionnaire was 84.7% and was similar to the participation of a study in a Cypriot nursing population on cooperation of ICU nurses with doctors [23]. The main point of the above study was the reported low levels of nurse-physician collaboration and moderate level of autonomy of ICU nurses working in public hospitals of Cyprus. Georgiou et al., used a weighted questionnaire, which added considerable validity to their research [24]. Our study, however, seems to be encouraging for the relationship between nurses and chief cardiologist, examining only one initiative of his daily activities. The Garling report discussed with reservation whether the round should be carried out daily and whether it should be multidisciplinary in nature [12]. In a relevant paper, there was not a direct link between team approach of healthcare professionals to patient care and positive clinical outcomes [31]. Relationships between doctors and nurses were not always positive [32]. Despite the mentioned opposition, the multidisciplinary team visit enhances the relationship of health professionals, promotes collaboration and mutual understanding, while highlighting the unique role of each of the participants [33]. A group of Greek nurses exploring the views of physicians on communication and interdisciplinary collaboration concluded that to be harmonious and effective there must be good interpersonal relationships, allocation of labour and responsibility and a mutual professional respect between health professionals [34]. In our study, in response to morning briefing/targeted round of the director, the nurses of cardiology/other wards reported pleasure and usefulness for themselves, in frequencies higher than those of their ICU colleagues, p=0.002 and p=0.047, respectively. A possible explanation might be that ICU nurses have greater autonomy or greater self-confidence than their colleagues in the wards. According to Haggstrom, nurses in ICUs have a doctor-centred approach to patient care with their main concern being to save patients, constantly monitoring vital parameters and acting in a good management way. Their ward colleagues focus on supporting and caring for patients, with continuous monitoring being a second priority [35].

Also, nurses in ICUs more often have the head physician or other one close to their patients than nurses in the wards. In ICUs the number of patients is smaller, compared to wards, but patients are in worse condition. It was emphasized that nurses, wherever they function, necessarily relied on physicians' decisions. The two groups of nurses require that physicians' decisions for patients be well documented and instructions to them clearly written down [35]. One explanation on ward nurses reporting more pleasure and usefulness for themselves and more benefit for the patients from the morning briefing/targeted round, might be the greater need for medical support they had, because of more patients in their wards and less autonomy they have compared to their ICU colleagues. Relevant are the findings of Haggstrom [35] and Georgiou [23]. The same interpretation probably applies for another response of ward nurses, indicating that morning briefing/targeted visit complements/repeats information to patients, compared to ICU nurses, p=0.007. Ward nurses reported greater benefit to informing patients, compared to their ICU colleagues, p=0.043.

This response, as the previous ones, shows nurses in the ICU were relatively restrained compared to the ward nurses on nurses' satisfaction, information and benefit to them. Perhaps the fact that the hospital under study used to accommodate cardiac patients in other wards when ICU/cardiology beds are occupied, may play a role. It is reasonable for nurses in non-cardiac wards to see the extra morning briefing/targeted round more useful to them and the patients. It was found that nurses with age<30 years, compared to the group with age >31 years, appreciated in lower frequencies the improvement of patients' psychology, p=0.004 and the additional/repeat information about their condition given to patients, p=0.018. So, were older nurses more sensitive to the issue of psychology status and patient information than the young ones? Kramer [36] was the first to describe the shock that young nurses suffer when they finish their training and start working in hospitals, as they find a gap between academic and real-world values [36]. Duchscher [37] addressed the same issue, confirming this transitional shock in young nurses and distinguished its components as emotional, physical, social, cultural and intellectual [37]. However, the situation described concerns only the first months of employment of new nurses. The strongest motivation for the nurse and the doctor in the exercise of their devoted action is the sense of duty towards the suffering fellow human being. This essential component explains probably the overall embracement of the director's initiative by the majority of nurses, despite group variations. This novel and systematic medico-managerial innovation, with the subsequent cooperation of nurses provides a frame of a leadership model [26-28]. Reasons supporting this are the non-usual time of new round, which reflects a strong sense of purpose, the development of director's personal communication skills with his nursing colleagues, the continuation of the initiative to present time. The mentioned reasons, combined with the nurses' maturity level, led to an active nurses' participation in the initiative, probably according to the leadership theory of Hersey and Blanchard [26]. Based on the structure of the Ministry of Health of Cyprus, nurses in public hospitals are not under head doctors' command [30]. Therefore, this model of collaboration probably identifies the director as with leadership behaviour and the nurses having information power and sharing with him his vision, proceeded with actions for patient care improvement. This innovation can also be considered from

the perspective of the managerial grid, as described by Blake [38]. Because the majority of nurses reported pleasure and benefit from it, the leadership model can be described as participatory. Modern care and the future's care require excellent collaboration between nurses and physicians with simultaneous consideration of the patients' point of view, within a framework of a collective approach to diagnostic and therapeutic problems [39]. So, without any delay we must be concerned with the education and preparation of future generations, both physicians and nurses [40,41].

Conclusion

ICU and Wards Nurses generally endorsed the early in the morning briefing/targeted round carried out by the Cardiology Director. However, the frequencies of the nurses' answers concerning pleasure or usefulness derived for them or for the patients, between ICU and ward nurses were in the ICU less (p=0.002, p=0.047). The frequencies of nurses' answers aged >31y and <30y, concerning improvement of patients' psychology or complementary information provided to patients with the round, were more in those >31y (p=0.004, p=0.018). Nurses may have cooperated well with the director of cardiology because this innovation reflects their values of providing the best and most timely care for patients. They may have accepted him with leadership characteristics, independent of his ranking, given that nurses are not under his command.

Limitations of the Study

This initiative was novel, so application of a standardised and weighted questionnaire was not feasible. The majority of the questionnaires studied, 116 out of 160(72.04%) were completed by nurses allocated in wards neither ICU nor main cardiac ward. In this study, only one specific systematic action of the cardiology director was evaluated by nurses.

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