

# Factors that guide nurse managers regarding the staffing of agency nurses in intensive care units at private hospitals in Pretoria

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Staffing needs affect the nursing department's budget, staff productivity, the quality of care provided to patients and even the retention of nurses. It is unclear how the role players (the nursing agency manager, the nurse manager and the agency nurse) perceive the staffing of agency nurses in intensive care units (ICUs). The purpose of this study was to explore and describe the factors that guide nurse managers regarding the staffing of agency nurses in ICUs at private hospitals in Pretoria. A quantitative exploratory and descriptive design was used. A survey by means of a structured questionnaire was carried out. Probability sampling was implemented to obtain a study sample ( $n = 124$ ). One similar self-administered 5-point scale instrument was completed by the participants. Data was analysed by means of descriptive and inferential statistics. The principles of validity and reliability were adhered to and ethical considerations were also taken into account. The results indicated limitations in the determining of posts, recruitment and advertising, as well as the selection and appointment of agency nurses in ICUs at private hospitals in Pretoria. Recommendations on staffing are made to nurse managers in ICUs.

## Introduction and rationale

Adequate nurse staffing is essential in a healthcare environment if quality patient care is to be delivered. Staffing not only has a quality and cost implication for the nursing service, but it is also important in terms of its contribution to job satisfaction and the retention of personnel in the nursing service. It is extremely important to appoint a person in the right post in order to facilitate high quality nursing care. In intensive care units (ICUs), the nurse-to-patient ratio should be one-on-one.

Clark (2009:327) states that the shortage of nurses places a burden on every clinic, hospital and community agency. The shortage of nurses in health care facilities is a global problem, especially in specialised areas such as ICUs and theatres. According to Hopkins (2002:18), patients who undergo high-risk surgeries are more likely to experience postoperative complications if the ICU is not sufficiently staffed by competent nurses. As a result of the nursing shortages, some hospitals are using nursing agencies in order to augment and enhance the efficiency, productivity and cost-effectiveness of their nursing resources and in this way they are endeavouring to meet the acute staffing needs that are caused by fluctuating patient numbers. A nursing agency service identifies, screens and provides qualified nurses to healthcare organisations at short notice. The use of nursing agencies has become an international trend (Hopkins 2002:18).

The use of nursing agencies varies from country to country. De Ruyter (2007:1666) maintains that expenses for the use of agency nurses have increased threefold in the United Kingdom from 1997 and 1998 to 2002 and 2003. In Australia, the use of agency nurses increased from 23% in 1994 to 26% in 2004 (Fitzgerald, McMillan & Maguire 2007:229). It is known that there are recruitment and retention problems in key high-skill areas, such as theatres, ICUs and neonatal units.

There are various reasons why the use of nurses from a nursing agency is not a wholly satisfactory way of filling vacant full-time positions. In view of the fact that the agency nurses' affiliation with the hospital is short-term, such nurses could lack a strong commitment to the goals, personnel and clients of the hospital (Burgess & Connell 2006:131; Hall 2006:175). It may happen that departments and units take on any agency nurse because they are of the opinion that any caregiver is better than no caregiver at all. However, managers complain when these nurses fail to meet the nurse managers' work requirements (De Ruyter 2007:1667–1681). Fitzgerald *et al.* (2007:230) also indicate that nurses prefer to work in areas in which they have experience and which they recognise as their speciality, for example ICU.

Fitzgerald *et al.* (2007:230) state that little has been written about the relationship between agency nurses and standards of care and that it constitutes a problem in the health care environment, which relies heavily on agency nurses.

Nevertheless, the use of agency nurses has benefits for health organisations. In a survey conducted in England, it was found that the most important advantages of using agency nurses included the operational and numerical flexibility of these agency nurses, as well as cost savings (Branine 2003:53–68). In South Africa the trend over the last five years has been that nurses prefer to work through nursing agencies, because they are not prepared to commit themselves to working at one hospital only. In this way, they have the freedom to choose when and where they want to work. It would seem as if the nursing agencies in South Africa are able to satisfy the staffing needs of the nurses, whilst patient satisfaction in South Africa increased from 87.5% in 2002 to 89.1% in 2008 (Poo 2009:7).

It is essential that each patient care unit has a staffing master plan that includes the basic personnel needed to cover the unit for each shift. Basic staff refers to the minimum number of nurses needed to staff a unit and it includes fully orientated full- and part-time employees (Roussel & Swansburg 2008:341).

### Triangular relationship of role players

The employment of agency nurses is characterised by a triangular relationship involving the nursing agency that hires the nurses to work for the specific hospital, the hospital that pays commission to the nursing agency and the agency nurse who is then paid by the nursing agency for the services delivered to the hospital (Biggs & Swailes 2006:130–143). Nursing agencies are required to provide large numbers of agency nurses to different hospitals. The most frequently cited reason for the demand of temporary nurses is the labour flexibility it provides (Zuzelo 2010:347). In other words, the nursing agency became the purveyor of flexibility and the human resource 'broker'. In this way, the agency frequently assumes the human resource role – the recruitment, selection and training of nurses – that was previously conducted by the human resources departments of hospitals (Burgess & Connell 2006:129–140).

A framework of agreement with preferred nursing agencies across the country imposes minimum standards. An important feature of these agreements is that only agencies that signed the agreement might supply staff to National Health Systems hospitals (De Ruyter 2007:1667). Zuzelo (2010:347) mentions that hospitals make use of agency nurses to meet a shortfall in nursing staff, especially in specialised units like ICUs. It is a global trend to use agency nurses in ICUs when there is a shortage of nursing staff in these units.

According to Armstrong (2007:384), agency nurses on average remain detached from a continuous relationship with the hospitals where they work. Huber (2006:740) recommends that nurse managers should take into account skills, competencies and knowledge when delegating tasks to agency nurses and when supervising their actions. It is essential that the nurse manager ensures that the agency nurse is aware of the relevant policies, procedures, resource

materials and documentation procedures. However, there is also the opinion that appropriate staffing involves more than just numbers. It is important to select staff with the appropriate skills and competencies, and it includes agency nurses. Thungjaroenkul *et al.* (2008:31–36) agree that the increase in workload along with a decline in the number of registered nurses impact the quality of patient care, as well as patients' safety. Accordingly, the planning of a health organisation's human resources should include an anticipation of labour shortages and surpluses (Muller, Bezuidenhout & Jooste 2006:245).

### Policy framework in South Africa

In South Africa, nursing agencies were established as a result of a need to provide nurses to hospitals that were experiencing a shortage of nurses. Numerous agencies have been established in recent years and the need for an association for nursing agencies arose. Accordingly, in 1994 the Association of Nursing Agencies of South Africa (ANASA) was established. Since then, more than 50 nursing agencies joined ANASA (ANASA n.d.).

The main objectives of ANASA include:

- Provide a service to and represent all nursing agencies in South Africa.
- Provide a service to the public through competent nurses.
- Ensure credibility and recognition by healthcare institutions that use agency nurses.
- Improve the standards for nursing agencies in order to provide an adequate and competent nursing workforce to hospitals.

These objectives of ANASA are intended to facilitate effective staffing of South African hospitals by agency nurses. In 1999, Professor M.E. Muller undertook a study on behalf of ANASA to develop standards for nursing agencies.

These standards addressed the following aspects with which a nursing agency should comply (Muller 2009:21–36):

- The nursing agency should be managed as a business to ensure quality nursing service delivery to the clients (hospitals).
- The nursing agency is responsible for the temporary staffing of agency nurses who are appropriately licensed with regulatory bodies.
- There should be evidence of contractual agreements between the nursing agency and the agency managers, as well as clients (hospitals) and other relevant stakeholders.
- A system reflecting the channels of communication, both internally and externally with hospital managers, should be available to ensure the adequate functioning of the nursing agency.
- There should be written quality improvement management programme in the nursing agency.

These standards indicate the importance of collaboration between agencies and hospitals for the provision of adequate nursing staff by the agencies. Hospitals might assume that

the nursing agencies conform to these standards and that the agencies provide agency nurses to them in accordance with the abovementioned standards. There are no completed research studies available in South Africa about the management of nursing agencies or about the staffing of agency nurses at hospital units, such as ICUs.

Agency workers are classified as temporary workers because their tenure within a hospital is for a limited period of time only. Agency nurses are part of a triangular relationship involving the nursing agency manager who hired them, the hospital for which they work (nurse manager) and the agency nurses themselves (Biggs & Swailes 2006:130–143). It is unclear how these role players (the nursing agency manager, the ICU nurse manager and the agency nurse) perceive the staffing of agency nurses in ICUs at private hospitals in Pretoria.

## Problem statement

It is known from practical experience that the nursing agency manager, the nurse manager and the agency nurse are the key role players in the staffing of agency nurses to an ICU setting. Agency nurses might be inexperienced and they might lack knowledge and skills in specialities such as ICUs. According to both Gillies (1994:200–203, 517–518) and Muller (2009:219–222), the implications of staffing agency nurses, for hospitals and for units such as ICU alike, include:

- Staff productivity in the unit might decrease as a result of the incompetency of the agency nurses.
- Conflict might develop in the unit when full-time nurses become frustrated with the lack of knowledge of agency nurses.
- Both incompetent agency nurses and agency nurses who did not show up for work might hold financial implications for the hospital.

The effective provision of agency nurses (staffing) might avert a negative scenario. The International Council of Nurses (ICN 2006:5) states that research increasingly demonstrates that the level of staffing has an impact on patient outcomes, such as mortality and morbidity.

In terms of the scenario described above and the implications such as poor patient outcomes, the following research question arose:

What factors guide nurse managers in the staffing of agency nurses in ICUs at private hospitals in Pretoria?

## Objectives

The objectives of this study are to:

- Explore and describe the perceptions of nursing agency managers, nurse managers and agency nurses regarding the factors involved in staffing agency nurses in intensive care units (ICUs) at private hospitals in Pretoria.
- Provide recommendations to nurse managers regarding the factors that guide the staffing of agency nurses in ICUs at private hospitals in Pretoria.

## Definition of concepts

**Intensive care unit (ICU):** In this study, an ICU refers to a setting in which intensive, specialised and one-on-one (patient-to-nurse ratio) nursing care is provided. These ICUs specialise in general, surgical, cardiac, neurological, trauma, paediatric and neonatal care.

**Professional nurse:** According to section 31 of the *Nursing Act* (Act. 33 of 2005) 'a professional nurse is a person who is qualified and competent to independently practice comprehensive nursing in the manner and to the level prescribed and who is capable of assuming responsibility and accountability for such practice.'

**Agency nurse:** Agency nurses are regarded as nurses who were hired as independent contractors for a shift, a week, or a longer period.

**Staffing:** Muller (2009:300) defines staffing as a process that involves the determination of positions, the recruitment of personnel, the advertisement of positions, as well as the selection, appointment and placement of personnel.

**Nursing agency:** According to Wikipedia, a nursing agency is a staffing agency that provides nursing personnel to hospitals, medical offices and individuals.

**Nursing agency manager:** In this study, the nursing agency manager is the person in charge of the nursing agency that is providing agency nurses to private hospitals.

**Nurse manager:** In this study, the term 'nurse manager' refers to a professional nurse who is the manager responsible for the general unit management of the ICU, for maintaining contact with the nursing agency managers and for the staffing of the ICU.

## Research methods and design

### Design

A quantitative, exploratory, descriptive research design was used to explore and describe the factors that guide nurse managers in the staffing of agency nurses in intensive care units at private hospitals in Pretoria. In terms of a quantitative research design, data were statistically analysed (Terre Blanche, Durrheim & Painter 2006:47). A quantitative design was chosen, as the researcher was not interested in exploring the meanings and experiences related to staffing of agency workers, which could have been explored in a qualitative approach. An exploratory research design is a design that is generally used where the area is either poorly understood or the topic concerned has only been partially explored. A descriptive study was followed in searching for accurate information about the characteristics of a phenomenon, for example the staffing of agency nurses (Terre Blanche *et al.* 2006:167; Polit & Beck 2008:274).

### Population and sampling

An accessible population refers to that portion of the population to which the researcher had reasonable access

(Burns & Grove 2005:342). The accessible population for this study comprised three groups of respondents with the following inclusion criteria:

- The first group of respondents included all the nursing agency managers who were working at the nursing agencies registered with ANASA and who provided agency nurses to private hospitals in the Pretoria region ( $n = 7$ ).
- The second group of respondents comprised the nurse managers of the ICUs at the seven private hospitals in Pretoria who were working either day or night shifts ( $n = 138$ ).
- The third group of respondents included all agency nurses who were working for the nursing agencies (on their agency employee lists) and who delivered nursing care to ICUs at private hospitals in Pretoria ( $n = 220$ ).

According to Polit and Beck (2010:307), sampling refers to the process of selecting a portion of the population to represent the entire population. At the time of the study, there were seven nursing agency managers (first group) in the Pretoria region who provided agency nurses to ICUs. A probability total sampling method was used and the researcher selected all seven nursing agency managers, since they were all typical of the population in question (Babbie 2009:196; LoBiondo-Wood & Haber 2009:268). Two of the nursing agency managers later took part in the pre-testing of the instrument and were excluded from the main study. Five nursing agency managers therefore served as the sample.

An equal-probability systematic sampling technique was utilised to select every  $k$  respondent of the nurse managers and agency nurses (Burns & Grove 2005:350). A representative sample of 69 nurse managers (second group) was systematically obtained from the private hospitals staff lists in Pretoria and a sample of 55 agency nurses (third group) was systematically selected from the agency staff lists. In total, 129 respondents served as the study sample of agency managers, nurse managers and agency nurses.

## Data collection method

During the survey conducted in January 2010, a self-administered similar questionnaire with a cover letter was administered to the respondents (agency managers, nursing managers and agency nurses).

A self-administered structured questionnaire was used to obtain information on the factors that guide nurse managers regarding the staffing of agency nurses in ICUs at private hospitals in Pretoria. The questionnaire included both open-ended and closed-ended questions. A 5-point Likert scale was used with responses ranging from 'Totally disagree', 'Disagree', 'Agree', 'Totally agree' to 'Do not know' (Polit & Beck 2008:418–420). The questionnaire had background information and four sections on: determining posts, recruitment and advertising, selection and appointment of agency nurses to ICUs (Table 1). Participants took 30 minutes to complete the questionnaires. The collected data were analysed by a statistician using both descriptive and

inferential statistics. The questionnaire was pre-tested. Fowler (2009:124) maintains that the pre-testing of a questionnaire is crucial in order to obviate ambiguity in the items and to eliminate errors. The population in the pre-testing possessed similar characteristics to the accessible research population and, because of some suggested changes to the instrument, they were not included in the main study.

## Data analysis

A statistician performed quantitative data analysis and employed descriptive statistical methods. A factor analysis of all items listed in the questionnaire was performed to establish relationships between the variables and to disentangle these relationships in order to identify those clusters of relationships (factors) that were closely linked (Burns & Grove 2005:489). In view of the fact that there were no predefined ideas in respect of the number of dimensions in a set of variables in the questionnaire, an exploratory factor analysis was conducted (Brown 2006:20). The factors that were extracted via the statistical analysis are presented (Table1). Items with a loading of less than 0.4 were excluded from the factor analysis. There were 116 respondents included in the inferential analysis of the study.

## Ethical considerations

Ethical approval and permission was obtained from the Department of Nursing Sciences, the Academic Ethics Committee of the Faculty of Health Sciences at the University of Johannesburg and the relevant authorities of the private hospitals in Pretoria. The ethical principles of Terre Blanche *et al.* (2006:67–68) were taken into account, namely, respect for autonomy to be able to withdraw, respect for persons due to respondents giving written informed consent indicating voluntary participation, maintaining privacy through respondents that could not be identified (names unknown on instruments) and benefits for the community in making the results of the findings available.

## Validity and reliability

Both internal and external validity were ensured in the study. Internal validity refers to the extent to which the results and the implications of the methods used to obtain the results,

**TABLE 1:** Factor analysis on items of the questionnaire.

Section	Factor	$\alpha$
Determining of posts for agency nurses	1	0.767
	2	0.609
Recruitment and advertising regarding agency nurses	3	0.63
	4	0.699
	5	0.519
Selection and appointment of agency nurses	6	0.864
	7	0.835
	8	0.811
Placement of agency nurses in ICUs	9	0.867
	10	0.708
	11	0.665
	12	0.673

ICU, Intensive Care Unit.

could be trusted (Watson *et al.* 2008:121). In this study, internal validity was ensured by pre-testing the instrument to confirm that the methodology, items and instructions in the questionnaire were understood. Face validity was assured by experts who stated that all the concepts about staffing in the ICUs at private hospitals had been addressed (Polit & Beck 2008:274). Content validity was assured by the extent to which the questions in the questionnaire represented the full domain of the content of the phenomenon related to the staffing of agency nurses (Polit & Beck 2008:274). In order to ensure the validity and reliability of the study, the researcher remained objective throughout the study. Objectivity should be an integral part of research to ensure that the researcher's personal biases and preferences do not influence the interpretation of the findings. The questionnaire used in this study was both structured and standardised from one respondent to the next, thus rendering it less prone to different interpretations and changes in emphasis. Construct validity was ensured by conducting a factor analysis on the items of the questionnaire. External validity was assured by the sampling of the nursing agencies. LoBiondo-Wood and Haber (2009:213) state that external validity deals with problems of generalisability.

Reliability was enhanced by internal consistency through the Cronbach's alpha ( $\alpha$ ) test for internal consistency. Cronbach's alpha ( $\alpha$ ) reliability coefficient of  $> 0.7$  was deemed acceptable (Gliem & Gliem 2003:84). The Cronbach's alpha values for each of the factors from the factor analysis conducted (Table 1).

## Findings

### Biographical information

A total of 129 questionnaires were distributed, of which five were handed out to nursing agency managers, 69 to nurse managers and 55 to agency nurses. A total of 124 questionnaires were returned (nursing agency managers ( $n = 5$ ), nurse managers ( $n = 64$ ) and agency nurses ( $n = 52$ ), unknown ( $n = 3$ )). It represented a good return rate of 96.1%. Of the 124 questionnaires returned, three (2.4%) of the respondents did not indicate whether they were an agency manager, a nursing manager or an agency nurse. Fowler (2009:158) states that when non-response on an item is less than 5%, the potential for that non-response to distort the estimate is fairly minimal. The distribution of the respondents that took part in the study (Figure 1).

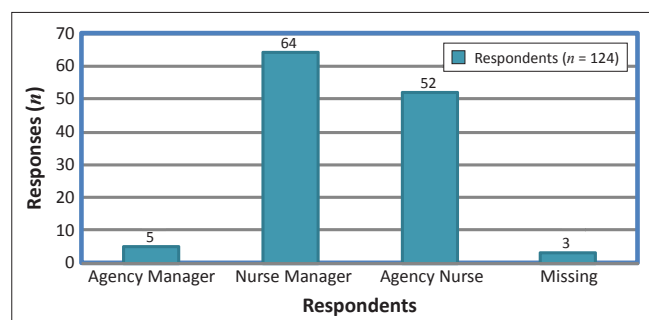


FIGURE 1: The relationships of participants in the Intensive Care Unit setting.

## Discussion of results

The factor analysis revealed 12 factors.

### Determining posts of agency nurses

#### Policy on patient ratios (Factor 1)

The hospital should inform the nursing agency manager about the equity ratios that have to be met in the ICU (Item 8:  $\bar{x}$  2.34, s.d. 998), whilst the nursing manager should be aware of the country's legislation and adhere to it. In South Africa, the *Employment Equity Act* (Act 55 of 1998) determines equity in the workplace. Consequently, hospital policy documents should focus on equity in the ICU setting (Item 7:  $\bar{x}$  2.70, s.d. 0.851). The hospital should ensure that staffing takes place according to the *Employment Equity Act* (Act 55 of 1998), with the relevant policies and strategies in place for determining posts.

Ward (2005:399–400) reported that the United States of America (USA) introduced a bill (*Registered Nurse Safe Staffing Act 2005*) to support staffing ratios and patient acuity levels. In terms of that bill, hospitals are required to put a staffing system in place that provides the appropriate number of nursing personnel for each shift and each unit. The lack of nursing expertise experienced in the ICU nurses should be the determining factor when ascertaining the competencies that the nursing agency manager had to address when selecting agency nurses (Item 13:  $\bar{x}$  2.93, s.d. 0.860). The skills mix available for a shift in ICU determines the number of agency nurses needed for that shift (Item 12:  $\bar{x}$  2.95, s.d. 0.926). According to Hart (2006:219), a strategic assessment of a number of factors should be made when recruiting nurses.

#### Patient acuity levels (Factor 2)

The daily bed occupancy should be taken into consideration when determining the number of ICU nurses needed for a specific shift (Item 11:  $\bar{x}$  3.23, s.d. 0.782). The American Nurses' Association's document (2005) provides guidelines for making staffing decisions. They suggest that the number and acuity of the patients, the level of staff working in the unit and their level of experience should all be taken into account when determining the number of nurses needed in the ICU. Daily statistics on patient types (ventilated and/or non-ventilated) should guide nurse managers when determining the number of ICU nurses needed per shift (Item 10:  $\bar{x}$  3.35, s.d. 0.744). According to DeLisle (2008:45), determining the staffing needs in ICU depends on various aspects, such as nurses' workload, the time required to provide patient care, patients' medication and treatment regime, volume of patients requiring care and differing doctor practices.

The hospital should take shortages of skilled ICU nurses into consideration when determining posts for the ICU (Item 6:  $\bar{x}$  2.56, s.d. 1.029). Daly, Speedy and Jackson (2007:10–11) maintained that nursing shortages were experienced in a broad range of specialisations, including critical and/or intensive care nursing, and raised critical questions for nurse leaders and managers with regard to the deployment

of scarce resources and the recruitment and retention of competent staff. Buerhaus *et al.* (2007:854) indicate that prolonged shortages of nursing staff might reduce the quality of patient care and decrease the efficiency and effectiveness of the care provided. Hospital managers should evaluate nurse shortages in terms of vacant budgeted positions, as well as the influence of vacancies on costs and revenues.

## Recruitment and advertising of agency nurses

### Hospital's intent with regard to nursing agency recruitment (Factor 3)

Clark (2008:3–10) is of the opinion that a job description would assist with hiring, managing, encouraging and disciplining employees and supports the belief that the job description should clearly communicate what is expected of employees, because it provides a solid foundation for all management actions (Item 20:  $\bar{x}$  2.55, s.d. 0.997).

Armstrong (2007:420) indicates that the cost of advertising could be considerable (Item 19:  $\bar{x}$  2.46, s.d. 1.080). Harris (2009:507–508) maintains that employment agencies assume advertising and recruitment costs and would produce applicants who have been screened, presumably according to the employer's specifications. The fee for such services is usually a percentage of the salary. Armstrong (2007:367) holds the opinion that businesses might benefit from aspects of human resource planning concerned with policies for recruiting and retaining staff (Item 14:  $\bar{x}$  2.39, s.d. 0.948). Muller, Bezuidenhout & Jooste *et al.* (2006:262) indicate that a recruitment policy should be designed according to the objectives of the hospital by stating the method of recruitment and the recruitment source to be used.

### Advertisements for agency nurses (Factor 4)

The highest loading obtained for Factor 4 was 0.874 on Item 16.1 ( $\bar{x}$  2.64, s.d. 0.932) and the lowest was 0.745 on Item 21 ( $\bar{x}$  2.38, s.d. 0.968).

There are various methods to recruit personnel. Muller *et al.* (2006:264) indicate that advertisements form part of external recruitment. The most popular method for recruiting nurses is advertising (Item 16.1:  $\bar{x}$  2.64, s.d. 0.932). Advertising is traditionally done in newspapers and magazines. However, internet advertising is cost-effective and more nurses are using the internet to look for work (Cleary & Rice 2005:265). Advertisements should specify the speciality areas in which agency nurses are needed (Item 22:  $\bar{x}$  2.53, s.d. 0.942). Arthur (2006:5) and Armstrong (2007:417) indicate that an advertisement should contain the name of the hospital, the job specification, the type of person required and the qualifications and experience necessary for the job. The job specification of such a nurse should be stated in the advertisement (Item 21:  $\bar{x}$  2.38 s.d. 0.968 in order to reduce the number of inappropriate candidates.

### Recruitment strategies of nursing agency (Factor 5)

Williamson *et al.* (2002:159) mention that certain job characteristics are desirable and valuable to applicants (Item

17:  $\bar{x}$  2.51, s.d. 0.856). Zimmerman (2002:95), on the other hand, reveal that hospitals have had success in recruiting and retaining nurses when they offer sign-on bonuses, retention bonuses, on-site day care and other fringe benefits.

Armstrong (2007:383–384) reveals that the recruitment policy provides broad guidelines and procedures for the way in which nurses should be recruited for the ICU, as well as for the use of agency nurses. This document should reflect the views of the hospital in relation to recruitment (Item 15:  $\bar{x}$  2.18, s.d. 0.861).

## Selection and appointment of agency nurses

### Selection process of the nursing agency (Factor 6)

The nursing agency manager should use the selection criteria provided by the nurse manager to select and appoint agency nurses (Item 27:  $\bar{x}$  2.33, s.d. 0.929), since they inform the selection of suitable agency nurses for the ICU. Roussel and Swansburg (2008:317) indicate that an organisation should establish policies and strategies for selecting nurses based on individuals' qualifications and capabilities. The nursing agency manager should conduct interviews with prospective agency nurses as part of the selection process (Item 28:  $\bar{x}$  2.30, s.d. 0.893). Marquis and Huston (2009:344) reveal that conducting an interview as part of the selection process assists in obtaining enough information to determine an applicant's suitability for the available position.

The nursing agency manager should make their appointment policy known to the agency nurse during the selection process (Item 24:  $\bar{x}$  2.47, s.d. 0.867). Compton, Morrissey and Nankervis (2009:49) indicate that the recruitment policy should be made known to all employees since it relates to the sourcing of employees. The appointment of suitable agency nurses by the nursing agency manager to an ICU setting should be based on the nurses' qualifications (Item 29.2:  $\bar{x}$  2.44, s.d. 0.897). Job specifications indicate the knowledge, qualifications, skills, abilities and other characteristics required for a person to be qualified to perform a job successfully (Noe *et al.* 2004:73). Agency nurses should be appointed to an ICU setting based on the extent to which their profiles suit the job description of an ICU nurse (Item 29.1:  $\bar{x}$  2.27, s.d. 0.886). Zimmerman (2002:95) indicates that a job description is important and useful during the selection process. A role profile, listing the competencies, skills, educational and experience requirements, produces job criteria against which candidates should be assessed during the interview (Armstrong 2007:410).

The nursing agency manager should verify the references stated on the application form of candidates applying for ICU posts (Item 26:  $\bar{x}$  2.55, s.d. 0.905). Arthur (2006:253), Muller *et al.* (2006:267) and Armstrong (2007:435) indicate that the information provided by the candidate nurse is usually checked and verified. Good (2008:82) and Fernandez-Araoz, Groyberg and Noharia (2009:80) agree that reference checks are an absolute requirement of the selection process.

### Work application of the agency nurse (Factor 7)

The nursing agency manager should endeavour to accommodate the preferences of the agency nurses by appointing them according to speciality preferences (Item 34.1:  $\bar{x}$  2.67, s.d. 0.890). Fernandez-Araoz *et al.* (2009:83) support the view that candidates should be given realistic information about the job to inform their decision whether they want to work there or not. The nursing agency manager should try to accommodate the nurses' by appointing them according to their preferences for a specific type of patient (Item 34.2:  $\bar{x}$  2.57, s.d. 0.873). Dunham-Taylor and Pinczuk (2009:112) confirm that an adequate staffing mix is associated with improved patient outcomes.

The nursing agency manager should also try to accommodate the agency nurses' preferences by appointing them according to choice of a particular ICU (Item 34.3:  $\bar{x}$  2.65, s.d. 0.726), since it could be seen as contributing to job satisfaction (Swansburg & Swansburg 2002:309). Cherry and Jacob (2008:567) suggest that, if the speciality preference is not available, it would be wise to accept an alternative position. Item 29.3 ( $\bar{x}$  2.21, s.d. 0.958) states that the nursing agency manager appoints a suitable agency nurse to an ICU setting according to the nurse's practical experience. Nurse managers should provide the agency with details of the demand for nurses, their qualifications, amount of work experience and particular skills required (Compton *et al.* 2009:9).

The nursing agency manager should appoint a suitable agency nurse to an ICU setting based on the feedback about the past performance of the nurse (Item 29.4:  $\bar{x}$  2.31, s.d. 0.958). Armstrong (2007:435) stated that it would be unwise to make a final decision without first checking an applicant's references and conducting a thorough background check.

The nursing agency should provide a choice on the application form of where an appointment is preferred (Item 25:  $\bar{x}$  3.00, s.d. 0.753). Roussel and Swansburg (2008:270) are of the opinion that candidates should have a choice of units to which they would be assigned.

### Selection strategies of the nursing agency (Factor 8)

The agency nurse with the highest score on the selection criteria should be appointed to the available position (Item 32:  $\bar{x}$  1.89, s.d. 0.903). Roussel and Swansburg (2008:317) hold the view that an organisation should establish policies and strategies for the selection and appointment of competent nurses. Applicants are compared against the selection criteria and the final decision to hire or reject the applicant should be made on the basis of this selection criteria (Compton *et al.* 2009:73). The nursing agency manager uses selection tests as part of the selection criteria to appoint agency nurses (Item 30:  $\bar{x}$  1.90, s.d. 0.796). Some organisations have employment tests as part of their selection criteria. The purpose of these employment tests is to predict job success for a number of applicants (Tomey 2004:340).

When an agency nurse is required to work in a specific ICU on a busy day, the profile of the permanent staff working on that

day determines the required experience level of the agency nurse (Item 33:  $\bar{x}$  8 1.82, s.d. 0.850). In ICUs, patients who are very ill and unstable need more experienced personnel than patients who are stable. Zuzelo (2010:346) points out that the skills mix should be determined by examining the patient population being served and identifying the skills and tasks required to provide care. To determine the skills mix one should look at several aspects, such as how care is being delivered, who is best suited for delivering the care, how the care should be divided between the caregivers and what skills mix is the safest (Dunham-Taylor & Pinczuk 2009:777).

The nursing agency should have a large pool of ICU nurses to choose from when selecting a nurse (Item 31:  $\bar{x}$  1.82, s.d. 0.899). Nursing shortages are a global problem and create stress and tension in the ICU. Huber (2006:587) indicated that this shortage seriously affects nurses and the provision of patient care. Clark (2008:10–11) indicates that a job description clearly defines the job beforehand in writing, and by using this document candidates know exactly what the job entails. From the employer's perspective, written job descriptions could serve as a basis for minimising misunderstandings around job requirements that occur between managers and their subordinates (Bohlander & Snell 2010:158).

Item 35 ( $\bar{x}$  1.82, s.d. 0.850) states that before the nursing agency manager appoints nurses to specific ICU settings, they should be provided with a job description outlining the required duties for that ICU. Clark (2008:10–11) indicates that a job description clearly defines the job in writing and, therefore, that document should be used to ensure that candidates are aware of what the job entails.

## Placement of an agency nurse in an Intensive Care Unit

### Agency nurses' preference in respect of placement (Factor 9)

The ICU should place agency nurses according to the appointment made by the nursing agency based on a nurse's choice of a particular ICU (Item 40.3:  $\bar{x}$  2.74, s.d. 0.718). Armstrong (2007:264) mentions that job satisfaction is affected by job influence, teamwork and job challenges, whilst Tomey (2004:105) indicates that nurses identify sources of job satisfaction as challenging work, a pleasant work environment and agreeable working hours. The ICU should place the agency nurse according to the appointment made by the nursing agency manager based on patient preference (Item 40.2:  $\bar{x}$  2.50, s.d. 0.851).

### Placement of agency nurses (Factor 10)

Sometimes the nurse manager sends the agency nurse to work in another ICU or other units during her shift in the ICU (Item 43:  $\bar{x}$  2.58, s.d. 0.884; Item 42:  $\bar{x}$  2.59, s.d. 0.883) and patients in the ICU are transferred to other units. It results in the nurse-to-patient ratio required by the hospital policy no longer being met and subsequently an oversupply of nurses develop in some units.

Staffing levels are influenced by many factors, such as the budget, nurse-to-patient ratios, nursing competencies and skills mix (Elliot, Aitken & Chaboyer 2007:18). According to hospital policy and guidelines, the hospital determines the number and qualifications of the nurses needed in the ICU (Zuzelo 2010:344–345). The permanent personnel working in the ICU should mentor the agency nurses (Item 48:  $\bar{x}$  2.95, s.d. 0.808), who should be supervised and helped in the ICU, especially if they are working in an ICU for the first time. Huber (2006:740) suggests that a mentor should be assigned to agency nurses to help prevent potential problems from occurring because of a lack of familiarity with the unit routine.

### Staff ratios (Factor 11)

The nurse manager and the nursing agency manager should agree when the services of the agency nurse are to be terminated during a shift (Item 45:  $\bar{x}$  2.51, s.d. 0.789). The unit's staffing plan determines when staffing levels should change as patient volume increases or decreases (Dunham-Taylor & Pinczuk 2009:194). The agency nurses' services should be terminated before their shift is finished, as agreed between the nurse manager and nursing agency (Item 44:  $\bar{x}$  2.71, s.d. 0.793). The agency nurse should be able to attend the in-service training programme of the hospital (Item 47:  $\bar{x}$  2.78, s.d. 0.875). Marquis and Huston (2009:371) are of the opinion that the nurse manager is responsible to maintain competent personnel. Education and training encourage individual growth and support staff development. The nurse manager should indicate to the nursing agency manager whether an agency nurse refuses to be placed in the ICU as arranged by the nursing agency manager (Item 39:  $\bar{x}$  2.98, s.d. 0.720). Good (2008:82) and Fernandez-Araoz *et al.* (2009:80) point out that reference checks are an absolute requirement.

### Work experience of the agency nurse (Factor 12)

The nursing agency should provide in-service training for agency nurses (Item 46:  $\bar{x}$  2.18, s.d. 0.885). In-service training is crucial to keep staff up to date in their work environment. Page (2004:5) states that it is a widely acknowledged fact that newly trained nurses need additional training and education once they enter the workforce. Similarly, experienced nurses need continuous education and training to keep abreast of the continuing growth of medical knowledge and technology. The ICU should place the agency nurse in terms of the appointment made by the nursing agency manager according to their experience rather than their qualifications (Item 40.4:  $\bar{x}$  2.61, s.d. 0.822). Page (2004:69) indicates that nurses with more years of experience have been found to have lower rates of medication errors associated with better patient care.

Agency nurses are usually placed by the hospital according to the expectations spelt out by them (Item 41:  $\bar{x}$  2.48, s.d. 0.849). Fernandez-Araoz *et al.* (2009:83) support the view that nurse candidates should be given realistic information about the job so that they can decide whether they are suitably matched for the position. The job description provided by the nursing agency and the nurse manager should be similar (Item 38:  $\bar{x}$  2.08, s.d. 0.802). The hospital should inform the nursing agency manager of the job specifications and the

duties that the agency nurse would be required to perform in the ICU. Muller *et al.* (2006:255) define a job description as a written statement explaining the purpose, scope, duties and responsibilities of a specified job. Compton *et al.* (2009:64) indicate that agencies would only be successful in locating the right applicant if it is equipped with accurate job descriptions and job specifications.

Nurse managers should take into account a number of internal hospital variables when deciding on the staffing needs of specific units. These variables include the staffing policies of the hospital and the structure and philosophy of the nursing department. The findings indicated that the nurse manager requires judgement, experience and a thorough knowledge of the requirements of the organisation, for example the different policies and guidelines of the organisation, when planning for staffing. It is essential that a recruitment policy be designed in accordance with the objectives of the hospital. Such a recruitment policy should include broad guidelines and procedures for recruitment. In addition, the hospital recruitment policy should state the method of recruitment and the recruitment source to be used.

The recruitment of qualified nurses is critical for the establishment and maintenance of both the ICU and the nursing agency. The findings indicated that information about the jobs to be filled, the ratio of job openings to the number of applicants and as much relevant information as possible about the applicants themselves are essential for making sound decisions in selecting agency nurses to work in ICUs. In order to place a nurse within a hospital, it is essential to follow an introduction process that include induction and orientation in respect of the hospital concerned.

## Limitations of the study

This research study was conducted at private hospitals in Pretoria. The respondents in the study comprised the agency managers of nursing agencies that provided agency nurses to ICUs at private hospitals in Pretoria, nurse managers and agency nurses working in these ICUs.

It was difficult to calculate the number of agency nurses who were working in the different ICUs at private hospitals in Pretoria, as permanently employed nurses working in ICUs also worked overtime as agency nurses in the hospitals in which they were permanently employed. There were agency nurses who worked for more than one nursing agency and it was found that permanent staff in hospitals might also act as agency nurses.

## Recommendations for the nurse manager regarding factors that guide staffing of agency nurses in intensive care units

The recruitment of qualified nurses is critical for the establishment and maintenance of both an ICU and of the nursing agency. In order to place a nurse within a hospital it is essential to follow an introduction process that will include induction and orientation in respect of the hospital concerned.



Regarding the determining of posts for agency nurses in an ICU, specific issues to be taken into account include nurse-to-patient ratios, nursing competencies and the skills mix (Elliot, Aitken & Chaboyer 2007:18). The hospital policy should address the nurse-to-patient ratios when determining the staffing levels within an ICU setting. The nurse manager should inform the nursing agency about the hospital's equity policy. In South Africa there is a law that addresses equity in the workplace (*Employment Equity Act* [Act 55 of 1998]). Patient acuity levels should be ascertained before determining the number of agency nurses needed to work in an ICU. Some patients in ICU need more care than other patients. Thungjaroenkul *et al.* (2008:31–36) agree that both increased workloads, as well as declining numbers of nurses have an impact on the quality of patient care and safety. Therefore, the nurse manager must implement a staffing plan that addresses patient acuity. This staffing plan should specify the number of each category of staff needed according to the patients' acuity. Staffing plans promote increased consistency.

## Conclusion

The findings of the research indicate that certain actions are essential for both the nursing agencies and the hospitals to address the specific recruitment, selection and placement strategies for the staffing of agency nurses at ICUs. Guidelines were developed for the nursing agencies, nurse managers and agency nurses that addressed the staffing of agency nurses in the ICUs at private hospitals in Pretoria.

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## Competing interest

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

## Authors' contributions

K.J. (University of the Western Cape) was the supervisor who wrote the manuscript based on the results of the master studies of C.P. (University of Johannesburg).

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