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ORIGINAL RESEARCH:
EMPIRICAL RESEARCH - MIXED METHODS

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# Undergraduate nursing assistant employment in aged care has benefits for new graduates

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## Abstract

**Aims:** To determine how undergraduate assistant in nursing employment in aged care helps to prepare new graduates for clinical work as a Registered Nurse.

**Background:** The amount and quality of clinical experience afforded by university programs has been the subject of constant debate in the nursing profession. New graduate nurses are often deemed inadequately prepared for clinical practice and so many nursing students seek employment as assistants in nursing whilst studying to increase their clinical experience.

**Design:** This paper presents the first phase of a larger mixed-methods study to explore whether undergraduate assistant in nursing employment in aged care prepares new graduate nurses for the clinical work environment. The first phase involved the collection of quantitative data from a modified *Preparation for Clinical Practice* survey, which contained 50-scaled items relating to nursing practice.

**Methods:** Ethics approval was obtained prior to commencing data collection. New graduate nurses who were previously employed as assistants in nursing in aged care and had at least 3 months' experience as a Registered Nurse, were invited to complete the survey. Social media and professional networks were used to distribute the survey between March 2015 – May 2016 and again in January 2017—February 2017. Purposeful and snowballing sampling methods using social media and nursing networks were used to collect survey responses. Data were analysed using principal components analysis.

**Results:** 110 completed surveys were returned. Principal components analysis revealed four underlying constructs (components) of undergraduate assistant in nursing employment in aged care. These were emotional literacy (component 1), clinical skills (component 2), managing complex patient care (component 3) and health promotion (component 4).

**Conclusion:** The four extracted components reflect the development of core nursing skills that transcend that of technical skills and includes the ability to situate oneself as a nurse in the care of an individual and in a healthcare team.

KEYWORDS
aged care, new graduate preparedness, nurses, nursing, older people, preparation for nursing practice

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## 1 | INTRODUCTION

The amount and quality of clinical experience afforded by university nursing programs has been the subject of constant debate in the nursing profession. New graduate (NG) nurses are often deemed inadequately prepared for clinical practice as a result of the limited clinical exposure students receive during their undergraduate studies (Usher, Mills, West, Park, & Woods, 2015). To gain greater clinical experience, many nursing students seek employment as Assistants in Nursing (AINs) at various healthcare facilities whilst studying (Algoso, Peters, Ramjan, & East, 2016a). AINs perform ancillary nursing duties that healthcare assistants (HCAs), nursing assistants (NAs) or certified NAs perform. The term "undergraduate AIN" is used to distinguish nursing students enrolled in a university-nursing program who work as AINs in a variety of healthcare facilities (Algoso & Peters, 2012). Findings from research that focused on the experiences of undergraduate AINs during their employment suggested that their experiences had substantial learning value (Algoso & Peters, 2012). However, the AINs who worked in the aged care sector expressed significant limitations in their "on the job" learning compared with those who worked in the acute care setting (Algoso & Peters, 2012).

With an ageing population and recruitment and retention issues in the aged care sector, industry and tertiary institutions (universities, colleges and vocational institutions) providing nursing education need to develop strategies to support and sustain the care of older adults. One way of achieving this is to emphasize to nursing students the value of aged care clinical experience to their professional nursing development. Ageist attitudes among nursing students often lead to a devaluing of aged care, which can have consequences to the prospective quality of care older adults receive (Algoso et al., 2016a). Consequently, ageist attitudes among graduating nurses contributes to recruitment and retention issues, that compromise the quality of care in the aged care sector, due to poor skill mix and staffing levels. The collection and analysis of survey data represents the first stage of a larger sequential mixed-methods study, to determine how undergraduate assistant in nursing employment in aged care helps to prepare new graduates for clinical work as Registered Nurses. The results of the survey are reported in this paper.

### Why is this research or review needed?

- Novice nurses often consider aged care nursing to be limited in relation to educational value and skill development.
- A significant number of nursing students are employed as assistants in nursing or personal care workers in aged care facilities.
- There is a need to explore different strategies in providing clinical nursing education to better prepare new graduates for the nursing workforce.

### What are the key findings?

- The aged care sector provides a valuable learning environment for novice nurses to develop nursing qualities.
- The underlying constructs of clinical learning in aged care include emotional literacy, clinical skills, patient management and self-care.
- Nursing students develop nursing qualities, such as the ability to communicate and form therapeutic relationships based on empathy and the meaning of caring (supporting a person through illness beyond pharmaceutical and medical interventions) during their time in aged care.

### How should the findings be used to influence policy/practice/research/education?

- Highlighting the educational significance of aged care nursing could attract new graduates to seek employment in the aged care sector addressing workforce retention issues and challenging ageist attitudes.
- Undergraduate assistant in nursing employment has the potential to form partnerships between industry and the tertiary education sector in relation to the training and education of novice nurses.
- Improves clinical preparedness of new graduates by consistently immersing them in the nursing workforce throughout their undergraduate program.

## 2 | BACKGROUND

"Preparedness" for nursing practice is a term associated with clinical performance and represents essential nursing skills required for practice (Clendon, 2011; Wolff, Regan, Pesut, and Black, 2010). Competence in communication, advanced assessment skills, wound and skin assessment and the capacity to provide complex care are often benchmarks for NG preparedness (Clendon, 2011). These skills imply that nurses possess fundamental nursing skills, and specialty specific skills; so that they can provide safe patient care and have the ability to balance doing, knowing and thinking (Wolff, Regan, et al., 2010).

The transfer of nursing education from hospital-based training to the tertiary sector has created various definitions of preparedness. The definition of practice readiness is heavily influenced by the mode of education and training experienced by those determining the practice readiness of nurses entering the workforce. Nurses trained through the apprenticeship model (hospital based training) define competence by mastery of clinical skills. On the other hand, nurses with tertiary qualifications perceive nursing as a continual process of development that occurs throughout one's career (Wolff, Pesut, & Regan, 2010).

Current Bachelor of Nursing students are actively recruited to work as assistants in nursing (AINs) by New South Wales (NSW)

Health. The aim of this incentive is to support the further development of clinical skills among Bachelor of Nursing students and to build on the knowledge they acquire through university education (New South Wales Health, 2010). There are a growing number of nursing students who seek employment as AINs to supplement clinical placements provided by universities (Salamonson, Everett, Koch, Andrew, & Davidson, 2012). Furthermore, employment as an undergraduate AIN provides nursing students with financial income, and improves the likelihood of gaining NG employment on graduation (Salamonson et al., 2012). However, a significant number of nursing students obtain employment in aged care facilities and often describe their experiences as "basic" and limited in relation to clinical learning experiences (Algoso & Peters, 2012).

The perception that aged care nursing has little to contribute to the professional development of novice nurses stems primarily from ageist attitudes and the focus of university programs on acute care nursing (Algoso et al., 2016a; Gillespie, 2013; Hanson, 2014; Swanlund & Kujath, 2012). Ageism is founded on the notion that as a person grows older, their contributions to society decreases and their dependence on others increases (Hanson, 2014). This often deters nursing students from working in the aged care sector as the increase in dependence of older adults usually equates to an increased workload. Additionally, there exists a common perception of aged care nursing to be mundane and repetitive (Algoso et al., 2016a). With an ageing global population and with the aged care sector in crisis in terms of staffing and resources, the aged care sector deserves recognition for what it can offer nursing education particularly with a significant number of nursing students being employed as undergraduate AINs in the sector.

### 2.1 | Theoretical Framework

The study of undergraduate AIN employment in aged care and its impact on preparedness for NG practice is underpinned by the theory of pragmatism. Pragmatism seeks to uncover truth, where truth is validated by its practical applicability to real human experiences (Pihlstrom, 2011). It is based on the belief that philosophical debates are useless unless they have practical applications (McCready, 2010; Tashakkori & Teddlie, 2003). In this respect, applying pragmatic worldviews to the study of preparedness among undergraduate AINs employed in aged care can help determine whether this phenomenon has practical applications to improving nursing education and the clinical preparedness of NG nurses.

## 3 | THE STUDY

### 3.1 | Aims

The aim of the study was to determine how undergraduate AIN employment in aged care helps to prepare NG nurses for clinical work as a Registered Nurse. This paper will present the quantitative results from the *Preparation for Clinical Practice* survey, which was adapted from a survey developed by Hill, Rolfe, Pearson, and Heathcote (1998), to measure the perceived clinical preparedness of NG nurses previously employed as undergraduate AINs in aged care.

### 3.2 | Design

Mixed-methods research designs involve the careful integration of quantitative and qualitative data as a means of comprehensively answering a research question (Hadi, Alldred, Closs, & Briggs, 2013). A sequential mixed-methods approach using the explanatory sequential design (Creswell & Plano Clark, 2011) was chosen to explore whether undergraduate AIN employment in aged care prepares NG nurses for the clinical work environment. This design begins with the quantitative stage of data collection (Hadi et al., 2013; Lavelle, Vuk, & Barber, 2013) (see Appendix A–Exploratory figure of sequential mixed-methods using the exploratory design).

The use of the *Preparation for Clinical Practice* survey allowed for the collection of quantitative data and represents the first stage of the larger sequential mixed-methods study. The *Preparation for Clinical Practice* survey was used to determine whether NGs felt that their previous employment as undergraduate AINs in aged care developed clinical skills that helped to prepare them for the clinical work environment. These results were then used to inform the qualitative component of the study for the second stage, which consisted of semi-structured interviews. Integrating both quantitative and qualitative approaches can often be advantageous in exploring complex phenomena (Greenwood & Terry, 2012). Currently, little is known about undergraduate AIN employment specifically in relation to its educational contributions. Applying a mixed-methods approach can uncover a vast amount of knowledge that can later serve as a platform for further research and development in using aged care in nursing education.

### 3.3 | The survey instrument

The *Preparation for Clinical Practice* survey was adapted from a survey developed by Hill et al. (1998) to measure the perceived preparedness of medical and Chinese medicine students for clinical practice. Further information about the adaptation and validation process is published elsewhere (Algoso, Peters, Ramjan, & East, 2016b). The survey comprises fifty skill items grouped into seven main domains of nursing practice that align with those outlined by the *National Competency Standards for the Registered Nurse* (Nursing and Midwifery Board of Australia, 2006). The domains of practice represented in the survey are interpersonal skills, confidence and coping skills, collaboration, management, prevention, holistic care and self-directed learning. The items on the Preparation for Clinical Practice survey reflect entry-level skills expected of RNs in Australia to measure whether NG RNs felt prepared to perform the skills as a result of their experience as an undergraduate AIN in aged care. A 5-point Likert scale was used that ranged from "not at all helpful", "not very helpful", "neither helpful nor unhelpful", "somewhat

helpful" and "extremely helpful". Additional items were also included to the survey such as the ability to reflect on their own performance (item 48) and identify areas for self-directed learning (item 50).

Demographic information was also added to the survey so that a profile of the participants could be determined. Demographic information included age, gender, state of residence, employment sector (public or private), employment status (for example, full time or casual) and hours worked per week, years as an AIN.

### 3.4 | Participants

New graduate nurses (RNs in their first year of practice) with at least 3 months experience as an RN were invited to participate in the study. NGs were required to have previously worked in an aged care setting as an undergraduate AIN or PCA prior to commencing their NG positions. 110 completed survey responses were collected. 95 online surveys were received from a possible 143 participants and 15 paper copies were returned to the first author.

### 3.5 | Data collection

Recruitment for the survey began by using social media sites such as Twitter, Facebook and Tumblr. The personal and professional Facebook pages of the first author were used to "share" and distribute the survey link via snowball sampling. This was also applied to Twitter in which the link was shared and re-tweeted by nursing colleagues. Posts describing the study with a link to the survey were posted on these sites and on specific NG nurses' Facebook pages that were identified using a simple Facebook search. Australian nursing journals that offered advertisements or promotion of current research were also contacted to circulate information about the study to reach a wider audience. The survey was further distributed among healthcare facilities such as hospitals and aged care facilities through contacting educators who then relayed the survey link to NG nurses under their supervision. Packs containing flyers with a brief description of the study and the link to the survey were also sent to aged care facilities. Data were collected between March 2015 until May 2016 and again in January to February 2017. The survey was opened periodically in this manner to coincide with NG nurse intake, which occurred in January until May of each year, to maximize recruitment opportunities. The survey was available online and consent was implied when participants completed and submitted the survey. Consent forms were attached to paper copies of the survey and participants were instructed to return these forms to the first author.

### 3.6 | Ethical considerations

Research Ethics Committee approval was obtained from the relevant Human Research Ethics Committee prior to commencing recruitment (HREC H10915). Completion of the online survey represented implied consent; whilst participant information sheets and consents forms were attached to paper copies.

### 3.7 | Data analysis

Data were analysed using SPSS version 22. Demographic information of the sample population was initially extracted, followed by the extraction of descriptive statistics from the scaled items relating to nursing skills. Principal components analysis (PCA) was then performed to reduce the data set into measurable constructs by clustering items that highly correlate with each other (Field, 2015; Tabachnick & Fidell, 2013). Essentially, PCA allows for the data to be reduced and summarized so that meaning can be created. PCA was applied to reduce the 50 items in the survey into components that reflect nursing skills learnt while working as an undergraduate AIN in aged care (Field, 2015). The following describes how meaningful clusters were derived using PCA to summarize the data so that clinical skills learnt through undergraduate AIN employment in aged care can be examined.

Prior to conducting the PCA, the 50-scaled items relating to nursing practice in the *Preparation for Clinical Practice* survey were assessed for suitability for PCA by applying the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO). A KMO value of 0.6 or greater is considered to be an adequate indication of suitability for PCA (Pallant, 2013). Data from the survey produced a KMO of 0.830 (Field, 2015; Pallant, 2013). The Bartlett's Test of Sphericity was also performed to test the suitability of the data for PCA. A significant (sig.) value of .05 or less indicates an acceptable Bartlett's result. The data from the survey produced a sig. value of 0.00, suggesting that factors can be extracted from the correlation matrix (Pallant, 2013). Since the data produced acceptable KMO and Bartlett's results, PCA was deemed appropriate for use in data analysis. Furthermore, correlation coefficients of .3 or greater reveals relationships between the variables and output from the initial analysis revealed several coefficients with a value greater than .3, adding to the appropriateness of PCA (Field, 2015; Pallant, 2013) (see Appendix B—correlation matrix).

Principal components analysis was performed on the 50-scaled items measuring clinical skills using orthogonal rotation (varimax). The initial PCA identified 11 components with an eigenvalue greater than 1, which explained 75.3% of the variance. The results from extracting 11 components did not produce meaningful clusters and so examination of the scree plot was performed, which identified six components to be retained (See Figure 1). This method of determining the number of factors to extract is derived from Cattell's scree test, which involves identifying the point at which the graph last drops and levels into a relatively straight line (Ledesma & Valero-Mora, 2007). The extraction of 6-components produced a total variance of 62.5%. To ensure the appropriateness of extracting 6 components, a parallel analysis was performed. Pallant (2013) suggests the use of parallel analysis to help determine the number of factors or components to extract using the program MonteCarlo PA. The parallel analysis confirmed the extraction of four components, rather than 6 components, which explained 54.1% of the total variance. While extraction of six components produced meaningful clusters, the final results were obtained from extracting four

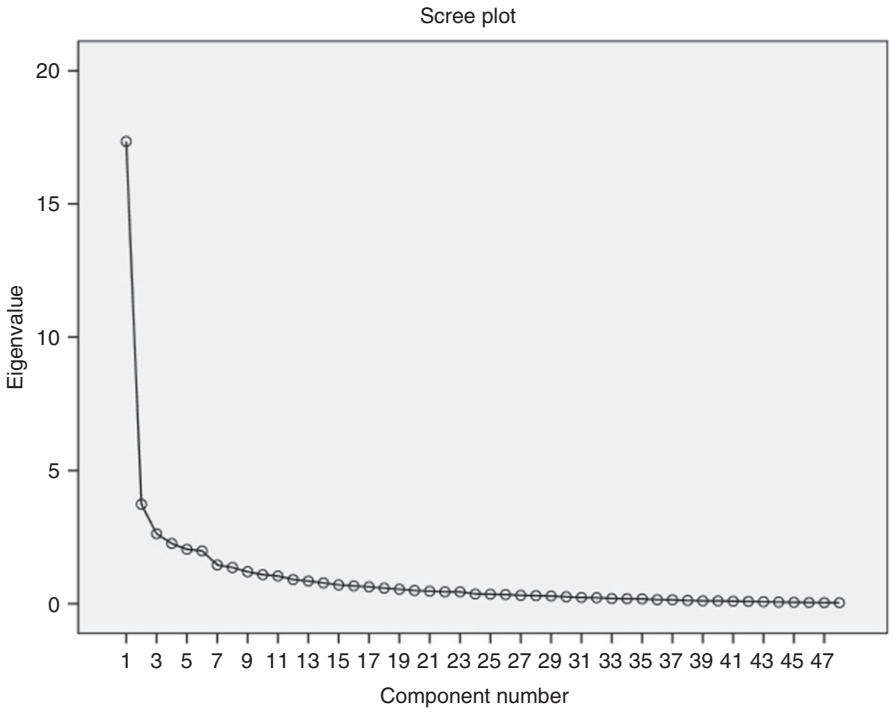


**FIGURE 1** Scree plot

components. Similar component loadings and item clusters were produced by six-component and four-component extraction. However, on examination and comparison of the six and four-component extractions, the four-component extraction produced item clusters that were more cohesive and meaningful in comparison to the six-component extraction. The item clusters produced by four-component extraction refined those produced by six-component extraction and are reported in the following section.

Coefficients of .9 or greater were examined to identify the risk of multicollinearity (Field, 2015). Items 23 and 24, which relates to "set[ting] up an intravenous line" and "care for intravenous cannulas," respectively, was found to have a high correlation coefficient (.91). Although multicollinearity does not significantly affect PCA, the removal of one item that is potentially causing multicollinearity can improve data analysis (Field, 2015; Hair, Black, Babin, & Anderson, 2010; Tabachnick & Fidell, 2013). Multicollinearity testing showed that item 23 ("set[ting] up an intravenous line") had a higher variance inflation factor (VIF) (22.93) and a lower tolerance (0.44) of the two items. Furthermore, setting up an intravenous line is not common practice for undergraduate AINs and so the decision to remove item 23 was made.

A reliability test of the scale was performed and produced an overall Cronbach's alpha (α) of .959. Item 22, "assist with activities of daily living (e.g. bathing, feeding)" produced a "Cronbach's α if item deleted" value of .960. On examination of the correlation coefficients, item 22 produced the least correlations with other variables. As such, item 22 was also removed from the final analysis. This resulted in PCA being performed on 48 of the 50-scaled items in the *Preparation for Clinical Practice* survey for a four-component extraction.

### 3.8 | Validity and reliability

Reliability of scaled-items was tested using SPSS version 22 to determine the Cronbach's alpha (α) of the 50 scaled-items. A Cronbach's α value of .7–.8 is commonly considered an acceptable representation of reliability (Field, 2015). The 50 scaled-items produced a Cronbach's α of .959, which is above this range, thereby confirming the reliability of the scale.

## 4 | RESULTS

Undergraduate AIN employment in aged care was found to help prepare nursing students for their new graduate year, with 61.8% ($N$ = 68) reporting that it was extremely helpful, followed by 31.8% ($N$ = 35) of the participants indicating that they found their employment as undergraduate AINs to be somewhat helpful. The majority of the survey participants (79.1%, $N$ = 87) highly recommend students seek undergraduate AIN employment during their nursing program.

### 4.1 | Demographic profile of participants

A demographic profile of the respondents is presented in Table 1. 95 completed surveys from a possible 143 participants who accessed the online survey link produced a response rate of 66.43%. 15 paper copies of the survey were returned to the first author. The total number of potential participants was difficult to ascertain since the survey was available Australia-wide.

**TABLE 1** Demographic profile and summary of undergraduate AIN work

| Sample demographic | Total (*N* = 110) | Percentage (%) |
|---|---|---|
| Gender | | |
| Female | 102 | 92.7 |
| Male | 8 | 7.3 |
| Sector | | |
| Public | 38 | 34.5 |
| Private | 40 | 36.4 |
| Public and private | 32 | 29.1 |
| Employment status | | |
| Full time | 5 | 4.5 |
| Part time | 33 | 30.0 |
| Casual | 59 | 53.6 |
| Agency | 7 | 6.4 |
| Other | 6 | 5.5 |
| Hours worked per week | | |
| 8–16 hr | 28 | 25.5 |
| 17–24 hr | 46 | 41.8 |
| 25–32 hr | 23 | 20.9 |
| More than 32 hr | 13 | 11.8 |
| Previous qualifications | | |
| Certificate III in Aged Care | 13 | 11.8 |
| Certificate IV in Aged Care | 10 | 9.1 |
| Not Applicable | 75 | 68.2 |
| Other | 12 | 10.9 |

The majority of the 110 respondents were female (92.7%) with only eight (7.3%) being male. The mean age of respondents was 28.5 years and had an average (mean) of 2.9 years working as undergraduate AINs. The survey was available Australia-wide, with 79.1% of respondents from New South Wales (NSW) and 9.1% from Queensland. The remaining respondents were from Victoria, South Australia, Western Australia and the Northern Territory, respectively.

At the time of the survey, 36.4% of the respondents worked as undergraduate AINs in the private sector, while 34.5% worked in the public sector. Twenty-nine per cent of respondents worked in both public and private sectors. The data showed that most respondents were employed on a casual basis (53.6%), followed by part-time employment (30.0%). Only 4.5% of respondents were employed full-time. The majority of the respondents worked between 17 and 24 hr per week, followed by 8–16 hr, then 25–32 hr. 11.8% of the respondents worked more than 32 hr per week. Most of the respondents completed their Bachelor of Nursing program in 2014, with 68.2% having no previous nursing qualifications. Table 1 shows the demographic profile of the sample.

New graduate nurses typically rotate through different specialty areas depending on the requirements of the NG program in which they are employed (if employed in a program). The NG nurses, at the time of survey completion, currently worked in a variety of specialty areas including aged care, gerontology, cardiology, emergency, neurology, community care, medical-surgical units, mental health, renal dialysis, paediatrics and sexual health.

## 4.2 | Scaled-items survey results

Descriptive analysis of the scaled-items of the survey revealed that NGs previously employed as undergraduate AINs in aged care found their experiences to be more helpful than not in developing clinical nursing skills. An initial descriptive analysis of the responses showed that the majority of the items relating to clinical skills rated highly amongst participants. Only four items that reflect technical clinical skills were identified as "not at all helpful" in preparing undergraduate AINs working in aged care for clinical work as NG nurses. These skills were "[setting] up an intravenous line" (42.7%), "care for intravenous cannulas" (39.1%), "perform an ECG" (36.4%) and "insert[ing] urinary catheters" (50.0%). All other scaled items presented in the survey were ranked as either "extremely helpful" or "helpful" by respondents. For example, the majority of the respondents found that their employment as undergraduate AINs in aged care were either "helpful" or "extremely helpful" in preparing them to "record clinical data accurately and systematically", "manage your time efficiently", "prioritize competing patients' needs" and "understand and comply with policies and procedures". Furthermore, respondents found their employment in aged care to be "helpful" in preparing them to "identify signs of clinical deterioration" and "identify clinical emergencies and activate proper response system", clinical skills that are typically transferrable to the acute care setting and are essential for entry-level nurses.

Tables 2 and 3 shows a summary of the component loadings extracted via principal component analysis of the 50-scaled items in the *Preparation for Clinical Practice* survey after rotation. The four-component solution accounted for a total of 54.1% of the variance; with Component 1 contributing 36.1%; Component 2, 7.8%; Component 3, 5.5%; and Component 4 contributing 4.7%. For a sample size of 110, Hair, Black, Babin and Anderson (2010) suggest that a component loading cut-off of .55 is needed to produce significant results. Items that cluster in Component 1 reflect the development of emotional literacy through working as an undergraduate AIN in aged care as it relates to NG practice. Component 2 reflects that clinical nursing skills can be learnt through experiences in aged care nursing and these skills are primarily related to performing comprehensive nursing physical assessments. Component 3 represents the ability to manage complex patient care; and component 4 represents elements of health promotion that form important aspects of the nursing role. The 4-component extraction shows strong component loadings in all four components.

Each of the four components were also tested for reliability using Cronbach's $\alpha$ and produced the following values: Component 1 (emotional literacy) Cronbach's $\alpha = .919$; component 2 (clinical skills) Cronbach's $\alpha = .899$; component 3 (managing complex patient care) Cronbach's $\alpha = .773$; and component 4 (health promotion) Cronbach's $\alpha = .902$.

**TABLE 2** Summary of principal components analysis results for the *Preparation for Clinical Practice* survey ($N = 110$)

| | | Rotated component loadings | | | | |
|---|---|---|---|---|---|---|
| Component | Item | Component 1: Emotional literacy | Component 2: Clinical skills | Component 3: Managing complex patient care | Component 4: Health promotion | Communalities |
| Emotional literacy | Identify your educational needs | **0.731** | 0.175 | 0.053 | 0.339 | 0.683 |
| | Care for patients holistically | **0.731** | 0.108 | 0.109 | 0.355 | 0.686 |
| | Invest time in developing your knowledge and skills | **0.711** | 0.252 | 0.073 | 0.336 | 0.687 |
| | Reflect on your performance | **0.708** | 0.149 | 0.086 | 0.319 | 0.632 |
| | Manage your own emotions in distressing clinical situations | **0.677** | 0.161 | 0.248 | −0.053 | 0.549 |
| | Appreciate the importance of a patient's cultural and/or ethnic background | **0.664** | 0.017 | 0.035 | 0.411 | 0.611 |
| | Consider the influence that a patient's religion/spirituality may have on his/her treatment regime | **0.623** | 0.043 | −0.005 | 0.517 | 0.657 |
| | Balance your work and personal life | **0.602** | 0.341 | 0.289 | −0.006 | 0.562 |
| | Be sensitive to the needs of colleagues | **0.598** | 0.130 | 0.303 | 0.123 | 0.482 |
| | Recognize your own clinical limitations | **0.595** | 0.230 | 0.290 | 0.148 | 0.512 |
| | Manage stress caused by your work | **0.580** | 0.205 | 0.389 | −0.045 | 0.532 |
| Clinical skills | Perform an ECG (electrocardiogram) | 0.140 | **0.796** | −0.142 | 0.091 | 0.681 |
| | Perform circulation observations | 0.160 | **0.784** | −0.005 | 0.201 | 0.680 |
| | Care for intravenous cannulas | 0.104 | **0.767** | 0.031 | 0.054 | 0.602 |
| | Perform BGLs (blood glucose levels) and manage appropriately | 0.100 | **0.719** | −0.024 | 0.209 | 0.571 |
| | Perform neurological observations | 0.204 | **0.713** | 0.173 | 0.197 | 0.619 |
| | Accurately perform vital signs, observations | 0.432 | **0.634** | 0.047 | 0.135 | 0.609 |
| | Carry out an efficient physical assessment | 0.257 | **0.582** | 0.479 | 0.250 | 0.697 |
| Managing complex patient care | Confidently provide end of life care for patients | 0.284 | −0.037 | **0.662** | −0.048 | 0.523 |
| | Feel confident in delegating tasks to other healthcare personnel | 0.083 | 0.264 | **0.639** | 0.301 | 0.575 |
| | Confidently provide care for a person with delirium | 0.207 | −0.012 | **0.627** | 0.168 | 0.464 |
| | Identify the need for medical review and/or allied health assessment | 0.204 | 0.355 | **0.593** | 0.265 | 0.590 |
| | Confidently provide care for a disoriented person | 0.292 | −0.160 | **0.591** | 0.223 | 0.510 |
| | Confidently communicate with patients and their families | 0.092 | 0.094 | **0.587** | −0.032 | 0.363 |

(Continues)

## 5 | DISCUSSION

Bachelor of Nursing students employed as undergraduate AINs in the aged care sector or in aged care settings often disregard the contributions of their experiences to their professional development (Algoso & Peters, 2012). However, results from the *Preparation for Clinical Practice* survey demonstrates that undergraduate AIN employment in aged care is valuable in developing clinical skills. According to the survey results, employment in aged care develops higher level nursing skills that include the ability to interpret a patient's unique needs and tailoring their care accordingly.

Results from the *Preparation for Clinical Practice* survey suggests that employment as an undergraduate AIN in aged care develops certain core nursing skills that facilitates the transition into NG practice. PCA analysis of the survey data revealed four components that categorize clinical skills learnt in aged care into emotional literacy, clinical skills, managing complex patient care and health promotion. Negative perceptions toward aged care work intensifies as nursing

**TABLE 2** (Continued)

| | | Rotated component loadings | | | | |
|---|---|---|---|---|---|---|
| Component | Item | Component 1: Emotional literacy | Component 2: Clinical skills | Component 3: Managing complex patient care | Component 4: Health promotion | Communalities |
| Health promotion | Discuss health risk behaviours with patients | 0.225 | 0.319 | 0.152 | **0.709** | 0.678 |
| | Provide education to patients and families | 0.312 | 0.245 | 0.196 | **0.694** | 0.677 |
| | Discuss relevant preventative health strategies with patients | 0.168 | 0.218 | 0.251 | **0.657** | 0.570 |
| | Encourage patients to improve their health habits | 0.417 | 0.223 | 0.036 | **0.64** | 0.634 |
| | Evaluate the impact of social factors on illness (e.g. employment and socioeconomic status) | 0.240 | 0.312 | 0.151 | **0.619** | 0.562 |
| | Identify the need for allied health involvement | 0.178 | 0.176 | 0.540 | **0.616** | 0.734 |
| | Eigenvalues | 17.3 | 3.7 | 2.6 | 2.3 | |
| | % of variance | 36.1 | 7.8 | 5.5 | 4.7 | |
| | A | .919 | .899 | .773 | .902 | |

Component loadings above 0.55 are represented in bold.

**TABLE 3** Summary of components

| Component 1: Emotional literacy | Component 2: Clinical skills | Component 3: Managing complex patient care | Component 4: Health promotion |
|---|---|---|---|
| The construct of emotional literacy in nursing practice, as reflected in component 1, represents how a novice nurse develops the ability to form therapeutic relationships with patients. This encompasses recognizing that a person's health and experiences of illness are influenced by factors other than physiological changes such as religion, culture and spirituality. Elements of self-reflection and improvement as a means of understanding nursing practice in terms of therapeutic interactions with patients and colleagues are also evident in component 1 (Anderson, 2016). | Component 2 reflects the construct of clinical skills, which supports the development of clinical skills through work experience in aged care. The cluster of items in component 2 reflect clinical skills that related to performing a comprehensive nursing assessment, which in turn implies that working in aged care improves a novice nurse's assessment skills. Nursing assessment is a fundamental nursing skill that allows nurses to identify changes in the patient's condition and prevent further deterioration (Birks, James, Chung, Cant, & Davis, 2014). | Component 3 requires the skills reflected in component 1 of emotional literacy to manage complex patient needs. Care of the elderly becomes increasingly complex as their bodies succumb to natural deterioration. Furthermore, as an older adult nears the end of life, family become increasingly involved and the needs of the patient may include input from social workers, physiotherapists and occupational therapists (Johnson & Chang, 2014; Pizzi, 2015). At the core of managing complex patient needs is the confidence to effectively communicate with patients and their families. The items in component 3 reflect the development of skills that support a novice nurse's ability to manage difficult situations. | The final component extracted from PCA analysis represents the construct of health promotion. The emergence of this component suggests that undergraduate AINs who work in aged care develop the ability to identify health risk factors and begin to take on the role of the nurse as an educator to promote preventative strategies. The capacity of a nurse to promote healthy habits requires a sound knowledge base, assessment skills, and critical thinking skills to appropriately educate the patient (Darkwah, Ross, Williams, & Madill, 2011). |

students progress through their nursing degree and gain more clinical experience, with students often developing a more biomedical and task-driven definition of nursing (Algoso et al., 2016a; Safadi, Saleh, Nassar, Amre, & Froelicher, 2011). Despite this, undergraduate AIN employment in aged care was found to assist novice nurses in linking theory with practice and in providing additional learning opportunities as collectively reflected by the 4 extracted components. The participants of the survey were NG nurses in various nursing specialities including critical care, paediatrics and community care in addition to aged care and gerontology. As such, the results of the survey heavily imply that aged care helps prepare NG nurses for a variety of settings.

Component 1 reflects the development of emotional literacy that guides novice nurses through complex therapeutic relationships that form in a healthcare setting, whether it is with colleagues, patients or residents and the patient's family. This component also reflects

the aspects of socialization that occurs when a novice nurse transitions into the clinical work environment, which is primarily related to how the nurse "fits in" in the clinical work environment and how the individual nurse can cope with the demands of nursing practice. Evident in this component are the humanistic characteristics of nursing such as empathy, holistic perceptions of individuals being cared for and the importance of the self in carrying out nursing duties. In a study conducted by Brown and Crookes (2016), which sought to determine the necessary skills expected of NG nurses, found that tertiary institutions considered the "human factors" of nursing to be as essential to practice as medication administration. "Human" nursing skills included professional behaviour and communication skills, skills that are paramount to the identity and function of a nurse. However, the participants of the study by Brown and Crookes (2016) found that NG nurses were not particularly prepared to perform "human" skills when entering the workforce. This is supported by Danbjorg and Birkelund (2011) who found that NG nurses in Denmark often felt ill-prepared for the clinical work environment, particularly in relation to human interactions such as dealing with difficult or aggressive patients. Participants of this study identified that skills relating to human interactions were learnt through experience and not through theoretical content delivery.

Despite the common perception that little can be learnt in aged care in terms of technical skill acquisition, the extraction of component 2 (clinical skills) suggests that clinical skills are learnt whilst working in the aged care sector. Fundamental nursing skills frequently become devalued as students acquire more technical skills and their focus shifts from caring to task completion (Safadi et al., 2011). Results of the survey indicated that nursing skills related to comprehensive nursing assessment are developed through undergraduate AIN employment in aged care. Consolidation of fundamental nursing skills increases the level of clinical confidence and improves clinical knowledge through experience and autonomous practice (Benner, Sutphen, Leonard, & Day, 2010; Masters, 2015).

Care of the elderly involves an understanding of the various factors that affect a person's health and well-being including the environment and spiritual influences (Algoso et al., 2016a). In this respect, working as an undergraduate AIN in aged care exposes novice nurses to the complexity of aged care nursing and is a vehicle for embedding the core concepts of nursing care such as compassionate care and environmental awareness that can often be overlooked in a medically driven and technologically focused modern clinical environment. Component 3 reflects constructs of managing complex patient care required in nursing to ensure that the individual needs of the patient or resident are met. This component is concerned with the nurse's ability to identify individual healthcare needs and respond accordingly, particularly when the patient's needs are complex, such as in end of life care and in caring for a patient with delirium. Danbjorg and Birkelund (2011) identified that nursing practice is complex and that the unique circumstance of each patient or resident requires nurses to be flexible and able to adapt to individual patient needs, which may require input from other health professionals. Undergraduate AIN employment in aged care encourages collaborative care with other health professions when the limits of nursing practice are recognized and emphasizes the importance of developing therapeutic relationships with patients, patients' families and colleagues. This promotes an understanding of holistic care and the role of other health professionals in the care of a patient (Kitson, Conroy, Kuluski, Locock, & Lyons, 2013).

Relative to managing complex patient care (component 3), the component of health promotion (component 4) describes the ability of a nurse to identify health risks and provide education to patients and their families to improve overall health and wellbeing. The promotion of health is a key component in the national competency standards for the RN in Australia (Nursing and Midwifery Board of Australia, 2006). The reduction in physical functionality and the deterioration of body systems means that the care needs of older adults are often more complex but where simple actions can have a considerable impact. Component 4 suggests that undergraduate AIN employment in aged care facilitates the link between theory and practice and provides an environment that fosters critical thinking, a core component of health promotion.

## 5.1 | Limitations

Participants (N = 110) completed the online survey, which limits generalizability of the results. The study also targeted a specific group of novice nurses, which could have contributed to difficulties in recruitment and in the final number of participants completing the survey. The difficulties in recruitment resulted in a lengthy recruitment period where more intensive recruitment occurred during times of high NG intake. Using online surveys can create difficulties in encouraging suitable participants to complete the survey or to determine how widespread the survey link had become through social media outlets (McInroy, 2016). This contributed to the lengthy recruitment period to obtain an adequate sample size. The specificity of the inclusion criteria may have limited the number of NGs who were eligible to complete the survey. Despite the role of the AIN, PCA and HCA being essentially the same, these roles may be interpreted as different.

## 5.2 | Implications for nursing practice

Undergraduate AIN employment can contribute to the clinical preparedness of NGs by immersing nursing students in the nursing work environment consistently throughout their undergraduate-nursing program. Undergraduate AIN employment in aged care promotes higher level nursing skills related to the humanistic nature of nursing, such as building therapeutic relationships through effective communication. Furthermore, experiences in aged care builds the capacity for compassionate care and instils core-nursing values. Such benefits to working in aged care could be promoted by academic staff to encourage novice nurses to engage with older adult care and challenge ageist attitudes. This is particularly crucial during a time when the global population is aging and living longer with chronic illnesses and at a time when the aged care sector requires support to meet

these demands. Undergraduate AIN employment in aged care is a potential strategy to support nursing students transition into RNs throughout the Bachelor of Nursing program.

## 6 | CONCLUSION

The four components extracted by performing a PCA analysis of the *Preparation for Clinical Practice* survey identified underlying elements of clinical learning in the aged care sector through employment as an undergraduate AIN. These components were emotional literacy, clinical skills primarily related to physical assessment, managing complex patient care and health promotion. The four components extracted from PCA reflect the development of core nursing skills that transcend that of technical skills and includes the ability to situate oneself as a nurse in the care of an individual and in a healthcare team. As such, undergraduate AIN employment in aged care is beneficial in preparing NG nurses for clinical practice in core nursing skills represented by the four components.

### AUTHOR CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (http://www.icmje.org/recommendations/)]:

- Substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- Drafting the article or revising it critically for important intellectual content.

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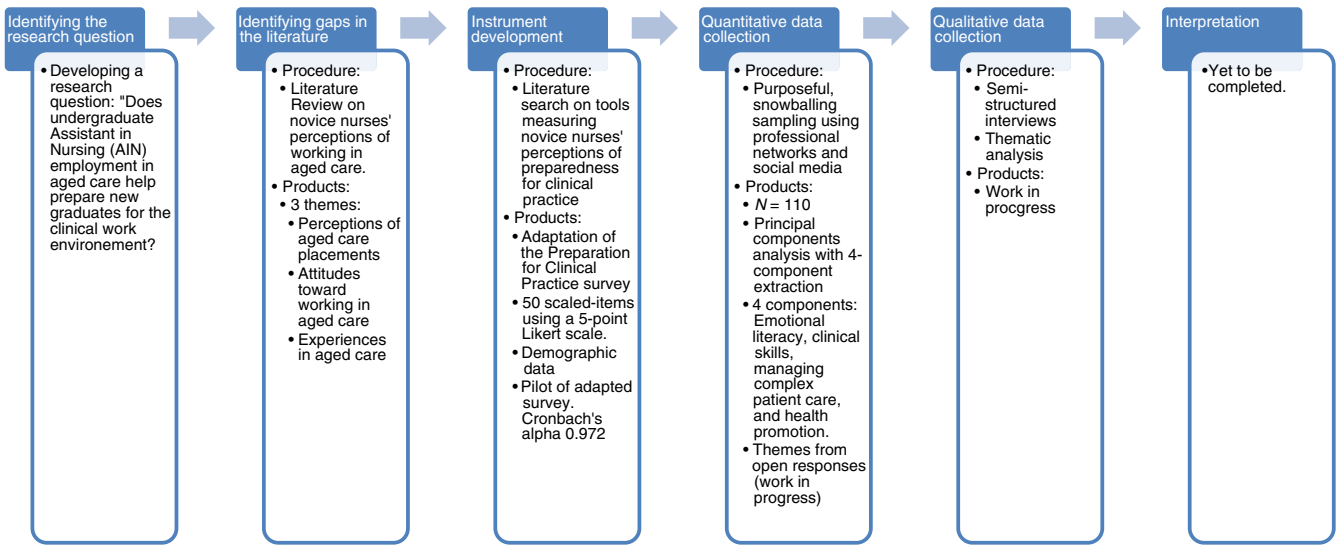
## APPENDIX A

### Explanatory figure of sequential mixed-methods using the exploratory design




[Colour figure can be viewed at wileyonlinelibrary.com]

## APPENDIX B

### Correlation matrix

| | 1. Confidently communicate with patients and their families | 2. Confidently provide care for a person showing signs of aggression | 3. Confidently provide care for a person with delirium | 4. Confidently provide care for a disoriented person | 5. Confidently provide end of life care for patients | 6. Manage stress caused by your work | 7. Recognize your own clinical limitations | 8. Manage your own emotions in distressing clinical situations | 9. Balance your work and personal life | 10. Remain calm in challenging situations | 11. Confidently approach senior staff for help in clinical situations | 12. Work collaboratively in a multidisciplinary team | 13. Be sensitive to the needs of colleagues | 14. Co-ordinate a comprehenisve patient management plan with allied health professionals | 15. Feel confident in delegating tasks to other healthcare personnel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Confidently communicate with patients and their families | 1 | 0.298 | 0.46 | 0.412 | 0.241 | 0.195 | 0.268 | 0.178 | 0.22 | 0.311 | 0.144 | 0.223 | 0.215 | 0.21 | 0.274 |
| 2. Confidently provide care for a person showing signs of aggression | 0.298 | 1 | 0.65 | 0.525 | 0.234 | 0.29 | 0.157 | 0.164 | 0.255 | 0.29 | 0.16 | 0.181 | 0.294 | 0.255 | 0.186 |
| 3. Confidently provide care for a person with delirium | 0.46 | 0.65 | 1 | 0.647 | 0.452 | 0.426 | 0.239 | 0.311 | 0.347 | 0.327 | 0.123 | 0.193 | 0.209 | 0.257 | 0.227 |
| 4. Confidently provide care for a disoriented person | 0.412 | 0.525 | 0.647 | 1 | 0.394 | 0.323 | 0.304 | 0.305 | 0.248 | 0.503 | 0.212 | 0.18 | 0.297 | 0.251 | 0.275 |
| 5. Confidently provide end of life care for patients | 0.241 | 0.234 | 0.452 | 0.394 | 1 | 0.474 | 0.302 | 0.341 | 0.315 | 0.324 | 0.352 | 0.286 | 0.345 | 0.305 | 0.436 |
| 6. Manage stress caused by your work | 0.195 | 0.29 | 0.426 | 0.323 | 0.474 | 1 | 0.459 | 0.734 | 0.639 | 0.44 | 0.49 | 0.21 | 0.44 | 0.321 | 0.283 |
| 7. Recognize your own clinical limitations | 0.268 | 0.157 | 0.239 | 0.304 | 0.302 | 0.459 | 1 | 0.496 | 0.491 | 0.354 | 0.504 | 0.271 | 0.613 | 0.457 | 0.383 |
| 8. Manage your own emotions in distressing clinical situations | 0.178 | 0.164 | 0.311 | 0.305 | 0.341 | 0.734 | 0.496 | 1 | 0.64 | 0.421 | 0.454 | 0.243 | 0.487 | 0.286 | 0.247 |
| 9. Balance your work and personal life | 0.22 | 0.255 | 0.347 | 0.248 | 0.315 | 0.639 | 0.491 | 0.64 | 1 | 0.494 | 0.512 | 0.316 | 0.513 | 0.397 | 0.355 |
| 10. Remain calm in challenging situations | 0.311 | 0.29 | 0.327 | 0.503 | 0.324 | 0.44 | 0.354 | 0.421 | 0.494 | 1 | 0.296 | 0.418 | 0.397 | 0.375 | 0.463 |
| 11. Confidently approach senior staff for help in clinical situations | 0.144 | 0.16 | 0.123 | 0.212 | 0.352 | 0.49 | 0.504 | 0.454 | 0.512 | 0.296 | 1 | 0.541 | 0.628 | 0.353 | 0.322 |
| 12. Work collaboratively in a multidisciplinary team | 0.223 | 0.181 | 0.193 | 0.18 | 0.286 | 0.21 | 0.271 | 0.243 | 0.316 | 0.418 | 0.541 | 1 | 0.373 | 0.555 | 0.528 |
| 13. Be sensitive to the needs of colleagues | 0.215 | 0.294 | 0.209 | 0.297 | 0.345 | 0.44 | 0.613 | 0.487 | 0.513 | 0.397 | 0.628 | 0.373 | 1 | 0.366 | 0.398 |
| 14. Co-ordinate a comprehenisve patient management plan with allied health professionals | 0.21 | 0.255 | 0.257 | 0.251 | 0.305 | 0.321 | 0.457 | 0.286 | 0.397 | 0.375 | 0.353 | 0.555 | 0.366 | 1 | 0.768 |
| 15. Feel confident in delegating tasks to other healthcare personnel | 0.274 | 0.186 | 0.227 | 0.275 | 0.436 | 0.283 | 0.383 | 0.247 | 0.355 | 0.463 | 0.322 | 0.528 | 0.398 | 0.768 | 1 |
| 16. Identify the need for medical review and/or allied health assessment | 0.375 | 0.138 | 0.191 | 0.275 | 0.404 | 0.311 | 0.516 | 0.277 | 0.334 | 0.406 | 0.467 | 0.563 | 0.489 | 0.55 | 0.67 |
| 17. Record clinical data accurately and systematically | 0.23 | 0.248 | 0.305 | 0.247 | 0.338 | 0.372 | 0.539 | 0.376 | 0.448 | 0.389 | 0.444 | 0.488 | 0.45 | 0.511 | 0.505 |
| 18. Carry out an efficient physical assessment | 0.251 | 0.388 | 0.41 | 0.279 | 0.318 | 0.372 | 0.478 | 0.31 | 0.458 | 0.417 | 0.416 | 0.475 | 0.4 | 0.549 | 0.527 |

COLOR

(Continues)

**APPENDIX B** (Continued)

| | 1. Confidently communicate with patients and their families | 2. Confidently provide care for a person showing signs of aggression | 3. Confidently provide care for a person with delirium | 4. Confidently provide care for a disoriented person | 5. Confidently provide end of life care for patients | 6. Manage stress caused by your work | 7. Recognize your own clinical limitations | 8. Manage your own emotions in distressing clinical situations | 9. Balance your work and personal life | 10. Remain calm in challenging situations | 11. Confidently approach senior staff for help in clinical situations | 12. Work collaboratively in a multidisciplinary team | 13. Be sensitive to the needs of colleagues | 14. Co-ordinate a comprehenisve patient management plan with allied health professionals | 15. Feel confident in delegating tasks to other healthcare personnel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19. Manage your time efficiently | 0.271 | 0.163 | 0.275 | 0.327 | 0.281 | 0.526 | 0.376 | 0.448 | 0.366 | 0.496 | 0.263 | 0.224 | 0.292 | 0.258 | 0.294 |
| 20. Prioritize competing patients' needs | 0.295 | 0.118 | 0.204 | 0.295 | 0.351 | 0.466 | 0.391 | 0.474 | 0.412 | 0.561 | 0.415 | 0.324 | 0.337 | 0.369 | 0.396 |
| 21. Accurately perform vital signs observations | 0.193 | 0.143 | 0.161 | 0.054 | 0.136 | 0.354 | 0.389 | 0.371 | 0.436 | 0.384 | 0.269 | 0.218 | 0.29 | 0.322 | 0.258 |
| 22. Assist with Activities of Daily Living (e.g. bathing, feeding) | 0.081 | 0.04 | 0.004 | 0.034 | 0.057 | 0.157 | 0.044 | 0.313 | 0.049 | 0.133 | 0.056 | −0.012 | 0.188 | 0 | −0.016 |
| 23. Set up an intravenous line | 0.041 | 0.073 | 0.086 | 0.091 | −0.006 | 0.322 | 0.287 | 0.207 | 0.331 | 0.224 | 0.277 | 0.227 | 0.168 | 0.412 | 0.263 |
| 24. Care for intravenous cannulas | 0.054 | 0.065 | 0.102 | 0.115 | 0.01 | 0.268 | 0.288 | 0.197 | 0.354 | 0.258 | 0.288 | 0.186 | 0.179 | 0.37 | 0.261 |
| 25. Perform circulation observations | 0.104 | 0.156 | 0.183 | 0.068 | −0.03 | 0.271 | 0.246 | 0.229 | 0.34 | 0.25 | 0.296 | 0.3 | 0.225 | 0.254 | 0.201 |
| 26. Perform neurological observations | 0.213 | 0.208 | 0.329 | 0.153 | 0.182 | 0.268 | 0.308 | 0.267 | 0.372 | 0.299 | 0.282 | 0.302 | 0.246 | 0.311 | 0.305 |
| 27. Perform an ECG | 0.086 | 0.039 | 0.044 | −0.05 | −0.151 | 0.246 | 0.23 | 0.218 | 0.359 | 0.217 | 0.205 | 0.282 | 0.178 | 0.287 | 0.108 |
| 28. Insert urinary catheters | 0.069 | 0.085 | 0.112 | 0.109 | 0.132 | 0.313 | 0.262 | 0.292 | 0.341 | 0.325 | 0.253 | 0.241 | 0.207 | 0.368 | 0.336 |
| 29. Care for urinary catheters | 0.188 | 0.288 | 0.313 | 0.256 | 0.336 | 0.436 | 0.311 | 0.356 | 0.462 | 0.392 | 0.352 | 0.231 | 0.298 | 0.355 | 0.28 |
| 30. Perform simple wound dressings | 0.245 | 0.076 | 0.19 | 0.099 | 0.245 | 0.141 | 0.268 | 0.223 | 0.222 | 0.249 | 0.234 | 0.228 | 0.256 | 0.23 | 0.209 |
| 31. Perform BGLs and manage appropriately | 0.158 | 0.127 | 0.099 | −0.029 | −0.012 | 0.12 | 0.246 | 0.053 | 0.262 | 0.179 | 0.222 | 0.256 | 0.127 | 0.255 | 0.189 |
| 32. Identify clinical emergencies and activate proper response system (e.g. MET call) | 0.251 | 0.08 | 0.199 | 0.116 | 0.232 | 0.187 | 0.311 | 0.061 | 0.23 | 0.231 | 0.218 | 0.326 | 0.165 | 0.348 | 0.439 |
| 33. Identify signs of clinical deterioration | 0.37 | 0.227 | 0.348 | 0.216 | 0.287 | 0.367 | 0.465 | 0.251 | 0.383 | 0.299 | 0.346 | 0.302 | 0.314 | 0.499 | 0.46 |
| 34. Understand and comply with policies and procedures | 0.281 | 0.155 | 0.32 | 0.371 | 0.216 | 0.308 | 0.51 | 0.291 | 0.443 | 0.335 | 0.401 | 0.347 | 0.379 | 0.433 | 0.349 |
| 35. Discuss health risk behaviours with patients | 0.042 | 0.202 | 0.196 | 0.226 | 0.099 | 0.34 | 0.351 | 0.305 | 0.297 | 0.287 | 0.369 | 0.459 | 0.363 | 0.457 | 0.433 |
| 36. Implement falls prevention assessments and strategies | 0.183 | 0.165 | 0.26 | 0.264 | 0.229 | 0.339 | 0.265 | 0.231 | 0.26 | 0.136 | 0.217 | 0.108 | 0.256 | 0.356 | 0.189 |
| 37. Implement pressure injury assessments and strategies | 0.222 | 0.24 | 0.342 | 0.363 | 0.407 | 0.388 | 0.356 | 0.358 | 0.29 | 0.163 | 0.308 | 0.195 | 0.356 | 0.235 | 0.246 |
| 38. Discuss relevant preventive health strategies with patients | 0.141 | 0.284 | 0.32 | 0.363 | 0.181 | 0.326 | 0.299 | 0.295 | 0.322 | 0.239 | 0.274 | 0.358 | 0.26 | 0.397 | 0.347 |
| 39. Confidently apply the 6-rights of medication administration to prevent medication errors | 0.07 | 0.104 | 0.117 | 0.111 | 0.187 | 0.211 | 0.229 | 0.122 | 0.232 | 0.206 | 0.222 | 0.182 | 0.157 | 0.409 | 0.392 |
| 40. Identify the need for allied health involvement | 0.326 | 0.383 | 0.476 | 0.474 | 0.319 | 0.294 | 0.377 | 0.284 | 0.346 | 0.394 | 0.19 | 0.366 | 0.348 | 0.536 | 0.531 |
| 41. Encourage patients to improve their health habits | 0.083 | 0.28 | 0.305 | 0.305 | 0.105 | 0.46 | 0.329 | 0.435 | 0.408 | 0.417 | 0.313 | 0.28 | 0.404 | 0.245 | 0.241 |
| 42. Provide education to patients and families | 0.172 | 0.268 | 0.331 | 0.368 | 0.207 | 0.335 | 0.359 | 0.281 | 0.341 | 0.426 | 0.166 | 0.265 | 0.353 | 0.403 | 0.41 |

(Continues)

**APPENDIX B** (Continued)

| | 1. Confidently communicate with patients and their families | 2. Confidently provide care for a person showing signs of aggression | 3. Confidently provide care for a person with delirium | 4. Confidently provide care for a disoriented person | 5. Confidently provide end of life care for patients | 6. Manage stress caused by your work | 7. Recognize your own clinical limitations | 8. Manage your own emotions in distressing clinical situations | 9. Balance your work and personal life | 10. Remain calm in challenging situations | 11. Confidently approach senior staff for help in clinical situations | 12. Work collaboratively in a multidisciplinary team | 13. Be sensitive to the needs of colleagues | 14. Co-ordinate a comprehenisve patient management plan with allied health professionals | 15. Feel confident in delegating tasks to other healthcare personnel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43. Evaluate the impact of social factors on illness (e.g. employment and socioeconomic status) | 0.029 | 0.219 | 0.31 | 0.273 | 0.129 | 0.37 | 0.29 | 0.368 | 0.331 | 0.333 | 0.296 | 0.324 | 0.307 | 0.421 | 0.328 |
| 44. Appreciate the importance of a patient's cultural and/or ethnic background | 0.078 | 0.212 | 0.206 | 0.271 | 0.234 | 0.427 | 0.504 | 0.467 | 0.376 | 0.312 | 0.418 | 0.284 | 0.433 | 0.317 | 0.264 |
| 45. Consider the influence that a patient's religion/spirituality may have on his/her treatment regime | 0.104 | 0.112 | 0.127 | 0.229 | 0.228 | 0.325 | 0.523 | 0.401 | 0.42 | 0.338 | 0.466 | 0.322 | 0.432 | 0.351 | 0.256 |
| 46. Care for patients holistically | 0.188 | 0.202 | 0.271 | 0.27 | 0.241 | 0.345 | 0.566 | 0.419 | 0.464 | 0.482 | 0.328 | 0.278 | 0.497 | 0.384 | 0.336 |
| 47. Take responsibility for your own learning | 0.236 | 0.311 | 0.26 | 0.25 | 0.21 | 0.281 | 0.479 | 0.228 | 0.369 | 0.362 | 0.406 | 0.348 | 0.441 | 0.315 | 0.27 |
| 48. Reflect on your performance | 0.159 | 0.354 | 0.362 | 0.397 | 0.233 | 0.336 | 0.5 | 0.391 | 0.451 | 0.477 | 0.316 | 0.235 | 0.451 | 0.288 | 0.249 |
| 49. Invest time in developing your knowledge and skills | 0.1 | 0.236 | 0.282 | 0.364 | 0.252 | 0.331 | 0.446 | 0.421 | 0.443 | 0.591 | 0.414 | 0.351 | 0.465 | 0.312 | 0.282 |
| 50. Identify your educational needs | 0.129 | 0.264 | 0.24 | 0.287 | 0.223 | 0.319 | 0.51 | 0.415 | 0.442 | 0.467 | 0.342 | 0.283 | 0.489 | 0.341 | 0.297 |

| | 16. Identify the need for medical review and/or allied health assessment | 17. Record clinical data accurately and systematically | 18. Carry out an efficient physical assessment | 19. Manage your time efficiently | 20. Prioritize competing patients' needs | 21. Accurately perform vital signs observations | 22. Assist with Activities of Daily Living (e.g. bathing, feeding) | 23. Set up an intravenous line | 24. Care for intravenous cannulas | 25. Perform circulation observations | 26. Perform neurological observations | 27. Perform an ECG | 28. Insert urinary catheters | 29. Care for urinary catheters | 30. Perform simple wound dressings | 31. Perform BGLs and manage appropriately | 32. Identify clinical emergencies and activate proper response system (e.g. MET call) | 33. Identify signs of clinical deterioration |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Confidently communicate with patients and their families | 0.375 | 0.23 | 0.251 | 0.271 | 0.295 | 0.193 | 0.081 | 0.041 | 0.054 | 0.104 | 0.213 | 0.086 | 0.069 | 0.188 | 0.245 | 0.158 | 0.251 | 0.37 |
| 2. Confidently provide care for a person showing signs of aggression | 0.138 | 0.248 | 0.388 | 0.163 | 0.118 | 0.143 | 0.04 | 0.073 | 0.065 | 0.156 | 0.208 | 0.039 | 0.085 | 0.288 | 0.076 | 0.127 | 0.08 | 0.227 |
| 3. Confidently provide care for a person with delirium | 0.191 | 0.305 | 0.41 | 0.275 | 0.204 | 0.161 | 0.004 | 0.086 | 0.102 | 0.183 | 0.329 | 0.044 | 0.112 | 0.313 | 0.19 | 0.099 | 0.199 | 0.348 |
| 4. Confidently provide care for a disoriented person | 0.275 | 0.247 | 0.279 | 0.327 | 0.295 | 0.054 | 0.034 | 0.091 | 0.115 | 0.068 | 0.153 | −0.05 | 0.109 | 0.256 | 0.099 | −0.029 | 0.116 | 0.216 |

(Continues)

**APPENDIX B** (Continued)

| | 16. Identify the need for medical review and/or allied health assessment | 17. Record clinical data accurately and systematically | 18. Carry out an efficient physical assessment | 19. Manage your time efficiently | 20. Prioritize competing patients' needs | 21. Accurately perform vital signs observations | 22. Assist with Activities of Daily Living (e.g. bathing, feeding) | 23. Set up an intravenous line | 24. Care for intravenous cannulas | 25. Perform circulation observations | 26. Perform neurological observations | 27. Perform an ECG | 28. Insert urinary catheters | 29. Care for urinary catheters | 30. Perform simple wound dressings | 31. Perform BGLs and manage appropriately | 32. Identify clinical emergencies and activate proper response system (e.g. MET call) | 33. Identify signs of clinical deterioration |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5. Confidently provide end of life care for patients | 0.404 | 0.338 | 0.318 | 0.281 | 0.351 | 0.136 | 0.057 | −0.006 | 0.01 | −0.03 | 0.182 | −0.151 | 0.132 | 0.336 | 0.245 | −0.012 | 0.232 | 0.287 |
| 6. Manage stress caused by your work | 0.311 | 0.372 | 0.372 | 0.526 | 0.466 | 0.354 | 0.157 | 0.322 | 0.268 | 0.271 | 0.268 | 0.246 | 0.313 | 0.436 | 0.141 | 0.12 | 0.187 | 0.367 |
| 7. Recognize your own clinical limitations | 0.516 | 0.539 | 0.478 | 0.376 | 0.391 | 0.389 | 0.044 | 0.287 | 0.288 | 0.246 | 0.308 | 0.23 | 0.262 | 0.311 | 0.268 | 0.246 | 0.311 | 0.465 |
| 8. Manage your own emotions in distressing clinical situations | 0.277 | 0.376 | 0.31 | 0.448 | 0.474 | 0.371 | 0.313 | 0.207 | 0.197 | 0.229 | 0.267 | 0.218 | 0.292 | 0.356 | 0.223 | 0.053 | 0.061 | 0.251 |
| 9. Balance your work and personal life | 0.334 | 0.448 | 0.458 | 0.366 | 0.412 | 0.436 | 0.049 | 0.331 | 0.354 | 0.34 | 0.372 | 0.359 | 0.341 | 0.462 | 0.222 | 0.262 | 0.23 | 0.383 |
| 10. Remain calm in challenging situations | 0.406 | 0.389 | 0.417 | 0.496 | 0.561 | 0.384 | 0.133 | 0.224 | 0.258 | 0.25 | 0.299 | 0.217 | 0.325 | 0.392 | 0.249 | 0.179 | 0.231 | 0.299 |
| 11. Confidently approach senior staff for help in clinical situations | 0.467 | 0.444 | 0.416 | 0.263 | 0.415 | 0.269 | 0.056 | 0.277 | 0.288 | 0.296 | 0.282 | 0.205 | 0.253 | 0.352 | 0.234 | 0.222 | 0.218 | 0.346 |
| 12. Work collaboratively in a multidisciplinary team | 0.563 | 0.488 | 0.475 | 0.224 | 0.324 | 0.218 | −0.012 | 0.227 | 0.186 | 0.3 | 0.302 | 0.282 | 0.241 | 0.231 | 0.228 | 0.256 | 0.326 | 0.302 |
| 13. Be sensitive to the needs of colleagues | 0.489 | 0.45 | 0.4 | 0.292 | 0.337 | 0.29 | 0.188 | 0.168 | 0.179 | 0.225 | 0.246 | 0.178 | 0.207 | 0.298 | 0.256 | 0.127 | 0.165 | 0.314 |
| 14. Co-ordinate a comprehenisve patient management plan with allied health professionals | 0.55 | 0.511 | 0.549 | 0.258 | 0.369 | 0.322 | 0 | 0.412 | 0.37 | 0.254 | 0.311 | 0.287 | 0.368 | 0.355 | 0.23 | 0.255 | 0.348 | 0.499 |
| 15. Feel confident in delegating tasks to other healthcare personnel | 0.67 | 0.505 | 0.527 | 0.294 | 0.396 | 0.258 | −0.016 | 0.263 | 0.261 | 0.201 | 0.305 | 0.108 | 0.336 | 0.28 | 0.209 | 0.189 | 0.439 | 0.46 |
| 16. Identify the need for medical review and/or allied health assessment | 1 | 0.668 | 0.672 | 0.305 | 0.543 | 0.371 | −0.011 | 0.227 | 0.234 | 0.359 | 0.404 | 0.174 | 0.249 | 0.243 | 0.382 | 0.289 | 0.517 | 0.595 |
| 17. Record clinical data accurately and systematically | 0.668 | 1 | 0.737 | 0.473 | 0.65 | 0.583 | 0.023 | 0.254 | 0.295 | 0.419 | 0.532 | 0.293 | 0.231 | 0.341 | 0.419 | 0.44 | 0.393 | 0.611 |
| 18. Carry out an efficient physical assessment | 0.672 | 0.737 | 1 | 0.361 | 0.57 | 0.599 | −0.04 | 0.405 | 0.423 | 0.565 | 0.607 | 0.392 | 0.311 | 0.426 | 0.496 | 0.512 | 0.444 | 0.672 |
| 19. Manage your time efficiently | 0.305 | 0.473 | 0.361 | 1 | 0.627 | 0.368 | 0.203 | 0.157 | 0.15 | 0.166 | 0.211 | 0.114 | 0.2 | 0.33 | 0.315 | 0.177 | 0.232 | 0.361 |
| 20. Prioritize competing patients' needs | 0.543 | 0.65 | 0.57 | 0.627 | 1 | 0.553 | 0.149 | 0.294 | 0.323 | 0.355 | 0.4 | 0.217 | 0.272 | 0.438 | 0.404 | 0.292 | 0.318 | 0.576 |
| 21. Accurately perform vital signs observations | 0.371 | 0.583 | 0.599 | 0.368 | 0.553 | 1 | 0.331 | 0.337 | 0.393 | 0.579 | 0.665 | 0.449 | 0.217 | 0.322 | 0.433 | 0.657 | 0.332 | 0.529 |
| 22. Assist with Activities of Daily Living (e.g. bathing, feeding) | −0.011 | 0.023 | −0.04 | 0.203 | 0.149 | 0.331 | 1 | −0.1 | −0.086 | −0.028 | 0.042 | −0.097 | −0.124 | 0.082 | 0.045 | 0.098 | −0.105 | −0.042 |
| 23. Set up an intravenous line | 0.227 | 0.254 | 0.405 | 0.157 | 0.294 | 0.337 | −0.1 | 1 | 0.91 | 0.561 | 0.436 | 0.747 | 0.756 | 0.391 | 0.345 | 0.414 | 0.313 | 0.369 |

(Continues)

**APPENDIX B** (Continued)

| | 16. Identify the need for medical review and/or allied health assessment | 17. Record clinical data accurately and systematically | 18. Carry out an efficient physical assessment | 19. Manage your time efficiently | 20. Prioritize competing patients' needs | 21. Accurately perform vital signs observations | 22. Assist with Activities of Daily Living (e.g. bathing, feeding) | 23. Set up an intravenous line | 24. Care for intravenous cannulas | 25. Perform circulation observations | 26. Perform neurological observations | 27. Perform an ECG | 28. Insert urinary catheters | 29. Care for urinary catheters | 30. Perform simple wound dressings | 31. Perform BGLs and manage appropriately | 32. Identify clinical emergencies and activate proper response system (e.g. MET call) | 33. Identify signs of clinical deterioration |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24. Care for intravenous cannulas | 0.234 | 0.295 | 0.423 | 0.15 | 0.323 | 0.393 | −0.086 | 0.91 | 1 | 0.591 | 0.488 | 0.76 | 0.681 | 0.396 | 0.294 | 0.444 | 0.363 | 0.374 |
| 25. Perform circulation observations | 0.359 | 0.419 | 0.565 | 0.166 | 0.355 | 0.579 | −0.028 | 0.561 | 0.591 | 1 | 0.769 | 0.693 | 0.413 | 0.298 | 0.382 | 0.634 | 0.428 | 0.447 |
| 26. Perform neurological observations | 0.404 | 0.532 | 0.607 | 0.211 | 0.4 | 0.665 | 0.042 | 0.436 | 0.488 | 0.769 | 1 | 0.534 | 0.384 | 0.416 | 0.486 | 0.607 | 0.425 | 0.491 |
| 27. Perform an ECG | 0.174 | 0.293 | 0.392 | 0.114 | 0.217 | 0.449 | −0.097 | 0.747 | 0.76 | 0.693 | 0.534 | 1 | 0.551 | 0.333 | 0.289 | 0.511 | 0.396 | 0.33 |
| 28. Insert urinary catheters | 0.249 | 0.231 | 0.311 | 0.2 | 0.272 | 0.217 | −0.124 | 0.756 | 0.681 | 0.413 | 0.384 | 0.551 | 1 | 0.389 | 0.4 | 0.276 | 0.295 | 0.317 |
| 29. Care for urinary catheters | 0.243 | 0.341 | 0.426 | 0.33 | 0.438 | 0.322 | 0.082 | 0.391 | 0.396 | 0.298 | 0.416 | 0.333 | 0.389 | 1 | 0.279 | 0.201 | 0.24 | 0.399 |
| 30. Perform simple wound dressings | 0.382 | 0.419 | 0.496 | 0.315 | 0.404 | 0.433 | 0.045 | 0.345 | 0.294 | 0.382 | 0.486 | 0.289 | 0.4 | 0.279 | 1 | 0.52 | 0.273 | 0.364 |
| 31. Perform BGLs and manage appropriately | 0.289 | 0.44 | 0.512 | 0.177 | 0.292 | 0.657 | 0.098 | 0.414 | 0.444 | 0.634 | 0.607 | 0.511 | 0.276 | 0.201 | 0.52 | 1 | 0.379 | 0.398 |
| 32. Identify clinical emergencies and activate proper response system (e.g. MET call) | 0.517 | 0.393 | 0.444 | 0.232 | 0.318 | 0.332 | −0.105 | 0.313 | 0.363 | 0.428 | 0.425 | 0.396 | 0.295 | 0.24 | 0.273 | 0.379 | 1 | 0.6 |
| 33. Identify signs of clinical deterioration | 0.595 | 0.611 | 0.672 | 0.361 | 0.576 | 0.529 | −0.042 | 0.369 | 0.374 | 0.447 | 0.491 | 0.33 | 0.317 | 0.399 | 0.364 | 0.398 | 0.6 | 1 |
| 34. Understand and comply with policies and procedures | 0.422 | 0.542 | 0.329 | 0.312 | 0.405 | 0.244 | 0.006 | 0.168 | 0.169 | 0.238 | 0.311 | 0.153 | 0.198 | 0.334 | 0.123 | 0.146 | 0.275 | 0.494 |
| 35. Discuss health risk behaviours with patients | 0.449 | 0.447 | 0.493 | 0.209 | 0.344 | 0.403 | 0.084 | 0.357 | 0.28 | 0.462 | 0.456 | 0.297 | 0.374 | 0.255 | 0.282 | 0.314 | 0.334 | 0.543 |
| 36. Implement falls prevention assessments and strategies | 0.228 | 0.313 | 0.248 | 0.286 | 0.269 | 0.272 | 0.285 | 0.158 | 0.14 | 0.148 | 0.205 | 0.136 | 0.127 | 0.297 | 0.127 | 0.138 | 0.044 | 0.266 |
| 37. Implement pressure injury assessments and strategies | 0.334 | 0.333 | 0.263 | 0.326 | 0.277 | 0.202 | 0.36 | 0.045 | 0.014 | 0.094 | 0.222 | −0.077 | 0.049 | 0.314 | 0.151 | 0.084 | 0.032 | 0.313 |
| 38. Discuss relevant preventive health strategies with patients | 0.319 | 0.378 | 0.374 | 0.195 | 0.281 | 0.262 | −0.092 | 0.33 | 0.265 | 0.358 | 0.395 | 0.253 | 0.381 | 0.268 | 0.205 | 0.294 | 0.343 | 0.498 |
| 39. Confidently apply the 6-rights of medication administration to prevent medication errors | 0.254 | 0.272 | 0.326 | 0.147 | 0.179 | 0.233 | −0.103 | 0.482 | 0.412 | 0.219 | 0.245 | 0.253 | 0.451 | 0.135 | 0.399 | 0.39 | 0.269 | 0.378 |
| 40. Identify the need for allied health involvement | 0.639 | 0.557 | 0.609 | 0.323 | 0.395 | 0.321 | −0.092 | 0.215 | 0.184 | 0.28 | 0.386 | 0.156 | 0.284 | 0.283 | 0.347 | 0.291 | 0.367 | 0.58 |
| 41. Encourage patients to improve their health habits | 0.268 | 0.457 | 0.335 | 0.31 | 0.375 | 0.409 | 0.016 | 0.315 | 0.248 | 0.388 | 0.37 | 0.328 | 0.415 | 0.195 | 0.267 | 0.257 | 0.161 | 0.42 |
| 42. Provide education to patients and families | 0.401 | 0.503 | 0.444 | 0.384 | 0.466 | 0.464 | −0.003 | 0.281 | 0.256 | 0.371 | 0.374 | 0.26 | 0.363 | 0.217 | 0.37 | 0.325 | 0.288 | 0.551 |
| 43. Evaluate the impact of social factors on illness (e.g. employment and socioeconomic status) | 0.351 | 0.412 | 0.486 | 0.281 | 0.332 | 0.359 | 0.033 | 0.359 | 0.288 | 0.412 | 0.412 | 0.339 | 0.479 | 0.196 | 0.397 | 0.277 | 0.293 | 0.473 |

(Continues)

**APPENDIX B** (Continued)

| | 16. Identify the need for medical review and/or allied health assessment | 17. Record clinical data accurately and systematically | 18. Carry out an efficient physical assessment | 19. Manage your time efficiently | 20. Prioritize competing patients' needs | 21. Accurately perform vital signs observations | 22. Assist with Activities of Daily Living (e.g. bathing, feeding) | 23. Set up an intravenous line | 24. Care for intravenous cannulas | 25. Perform circulation observations | 26. Perform neurological observations | 27. Perform an ECG | 28. Insert urinary catheters | 29. Care for urinary catheters | 30. Perform simple wound dressings | 31. Perform BGLs and manage appropriately | 32. Identify clinical emergencies and activate proper response system (e.g. MET call) | 33. Identify signs of clinical deterioration |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 44. Appreciate the importance of a patient's cultural and/or ethnic background | 0.35 | 0.438 | 0.325 | 0.223 | 0.278 | 0.345 | 0.295 | 0.058 | 0.087 | 0.247 | 0.198 | 0.144 | 0.229 | 0.192 | 0.196 | 0.195 | 0.216 | 0.279 |
| 45. Consider the influence that a patient's religion/spirituality may have on his/her treatment regime | 0.294 | 0.407 | 0.288 | 0.23 | 0.274 | 0.292 | 0.133 | 0.106 | 0.139 | 0.206 | 0.224 | 0.205 | 0.284 | 0.216 | 0.199 | 0.137 | 0.208 | 0.365 |
| 46. Care for patients holistically | 0.44 | 0.599 | 0.425 | 0.376 | 0.405 | 0.506 | 0.227 | 0.1 | 0.163 | 0.253 | 0.374 | 0.207 | 0.156 | 0.238 | 0.197 | 0.255 | 0.198 | 0.412 |
| 47. Take responsibility for your own learning | 0.422 | 0.575 | 0.499 | 0.308 | 0.464 | 0.531 | 0.057 | 0.211 | 0.247 | 0.372 | 0.442 | 0.289 | 0.262 | 0.305 | 0.375 | 0.456 | 0.329 | 0.567 |
| 48. Reflect on your performance | 0.291 | 0.454 | 0.453 | 0.407 | 0.412 | 0.448 | 0.174 | 0.145 | 0.214 | 0.296 | 0.342 | 0.244 | 0.192 | 0.3 | 0.326 | 0.331 | 0.195 | 0.334 |
| 49. Invest time in developing your knowledge and skills | 0.342 | 0.552 | 0.468 | 0.422 | 0.571 | 0.512 | 0.134 | 0.19 | 0.302 | 0.34 | 0.416 | 0.256 | 0.256 | 0.382 | 0.329 | 0.351 | 0.208 | 0.417 |
| 50. Identify your educational needs | 0.373 | 0.56 | 0.43 | 0.362 | 0.496 | 0.469 | 0.168 | 0.138 | 0.248 | 0.298 | 0.342 | 0.256 | 0.21 | 0.294 | 0.293 | 0.283 | 0.177 | 0.394 |

| | 34. Understand and comply with policies and procedures | 35. Discuss health risk behaviours with patients | 36. Implement falls prevention assessments and strategies | 37. Implement pressure injury assessments and strategies | 38. Discuss relevant preventive health strategies with patients | 39. Confidently apply the 6-rights of medication administration to prevent medication errors | 40. Identify the need for allied health involvement | 41. Encourage patients to improve their health habits | 42. Provide education to patients and families | 43. Evaluate the impact of social factors on illness (e.g. employment and socioeconomic status) | 44. Appreciate the importance of a patient's cultural and/or ethnic background | 45. Consider the influence that a patient's religion/spirituality may have on his/her treatment regime | 46. Care for patients holistically | 47. Take responsibility for your own learning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Confidently communicate with patients and their families | 0.281 | 0.042 | 0.183 | 0.222 | 0.141 | 0.07 | 0.326 | 0.083 | 0.172 | 0.029 | 0.078 | 0.104 | 0.188 | 0.236 |
| 2. Confidently provide care for a person showing signs of aggression | 0.155 | 0.202 | 0.165 | 0.24 | 0.284 | 0.104 | 0.383 | 0.28 | 0.268 | 0.219 | 0.212 | 0.112 | 0.202 | 0.311 |
| 3. Confidently provide care for a person with delirium | 0.32 | 0.196 | 0.26 | 0.342 | 0.32 | 0.117 | 0.476 | 0.305 | 0.331 | 0.31 | 0.206 | 0.127 | 0.271 | 0.26 |
| 4. Confidently provide care for a disoriented person | 0.371 | 0.226 | 0.264 | 0.363 | 0.363 | 0.111 | 0.474 | 0.305 | 0.368 | 0.273 | 0.271 | 0.229 | 0.27 | 0.25 |

(Continues)

**APPENDIX B** (Continued)

| | 34. Understand and comply with policies and procedures | 35. Discuss health risk behaviours with patients | 36. Implement falls prevention assessments and strategies | 37. Implement pressure injury assessments and strategies | 38. Discuss relevant preventive health strategies with patients | 39. Confidently apply the 6-rights of medication administration to prevent medication errors | 40. Identify the need for allied health involvement | 41. Encourage patients to improve their health habits | 42. Provide education to patients and families | 43. Evaluate the impact of social factors on illness (e.g. employment and socioeconomic status) | 44. Appreciate the importance of a patient's cultural and/or ethnic background | 45. Consider the influence that a patient's religion/spirituality may have on his/her treatment regime | 46. Care for patients holistically | 47. Take responsibility for your own learning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5. Confidently provide end of life care for patients | 0.216 | 0.099 | 0.229 | 0.407 | 0.181 | 0.187 | 0.319 | 0.105 | 0.207 | 0.129 | 0.234 | 0.228 | 0.241 | 0.21 |
| 6. Manage stress caused by your work | 0.308 | 0.34 | 0.339 | 0.388 | 0.326 | 0.211 | 0.294 | 0.46 | 0.335 | 0.37 | 0.427 | 0.325 | 0.345 | 0.281 |
| 7. Recognize your own clinical limitations | 0.51 | 0.351 | 0.265 | 0.356 | 0.299 | 0.229 | 0.377 | 0.329 | 0.359 | 0.29 | 0.504 | 0.523 | 0.566 | 0.479 |
| 8. Manage your own emotions in distressing clinical situations | 0.291 | 0.305 | 0.231 | 0.358 | 0.295 | 0.122 | 0.284 | 0.435 | 0.281 | 0.368 | 0.467 | 0.401 | 0.419 | 0.228 |
| 9. Balance your work and personal life | 0.443 | 0.297 | 0.26 | 0.29 | 0.322 | 0.232 | 0.346 | 0.408 | 0.341 | 0.331 | 0.376 | 0.42 | 0.464 | 0.369 |
| 10. Remain calm in challenging situations | 0.335 | 0.287 | 0.136 | 0.163 | 0.239 | 0.206 | 0.394 | 0.417 | 0.426 | 0.333 | 0.312 | 0.338 | 0.482 | 0.362 |
| 11. Confidently approach senior staff for help in clinical situations | 0.401 | 0.369 | 0.217 | 0.308 | 0.274 | 0.222 | 0.19 | 0.313 | 0.166 | 0.296 | 0.418 | 0.466 | 0.328 | 0.406 |
| 12. Work collaboratively in a multidisciplinary team | 0.347 | 0.459 | 0.108 | 0.195 | 0.358 | 0.182 | 0.366 | 0.28 | 0.265 | 0.324 | 0.284 | 0.322 | 0.278 | 0.348 |
| 13. Be sensitive to the needs of colleagues | 0.379 | 0.363 | 0.256 | 0.356 | 0.26 | 0.157 | 0.348 | 0.404 | 0.353 | 0.307 | 0.433 | 0.432 | 0.497 | 0.441 |
| 14. Co-ordinate a comprehenisve patient management plan with allied health professionals | 0.433 | 0.457 | 0.356 | 0.235 | 0.397 | 0.409 | 0.536 | 0.245 | 0.403 | 0.421 | 0.317 | 0.351 | 0.384 | 0.315 |
| 15. Feel confident in delegating tasks to other healthcare personnel | 0.349 | 0.433 | 0.189 | 0.246 | 0.347 | 0.392 | 0.531 | 0.241 | 0.41 | 0.328 | 0.264 | 0.256 | 0.336 | 0.27 |
| 16. Identify the need for medical review and/or allied health assessment | 0.422 | 0.449 | 0.228 | 0.334 | 0.319 | 0.254 | 0.639 | 0.268 | 0.401 | 0.351 | 0.35 | 0.294 | 0.44 | 0.422 |
| 17. Record clinical data accurately and systematically | 0.542 | 0.447 | 0.313 | 0.333 | 0.378 | 0.272 | 0.557 | 0.457 | 0.503 | 0.412 | 0.438 | 0.407 | 0.599 | 0.575 |
| 18. Carry out an efficient physical assessment | 0.329 | 0.493 | 0.248 | 0.263 | 0.374 | 0.326 | 0.609 | 0.335 | 0.444 | 0.486 | 0.325 | 0.288 | 0.425 | 0.499 |
| 19. Manage your time efficiently | 0.312 | 0.209 | 0.286 | 0.326 | 0.195 | 0.147 | 0.323 | 0.31 | 0.384 | 0.281 | 0.223 | 0.23 | 0.376 | 0.308 |
| 20. Prioritize competing patients' needs | 0.405 | 0.344 | 0.269 | 0.277 | 0.281 | 0.179 | 0.395 | 0.375 | 0.466 | 0.332 | 0.278 | 0.274 | 0.405 | 0.464 |
| 21. Accurately perform vital signs observations | 0.244 | 0.403 | 0.272 | 0.202 | 0.262 | 0.233 | 0.321 | 0.409 | 0.464 | 0.359 | 0.345 | 0.292 | 0.506 | 0.531 |
| 22. Assist with Activities of Daily Living (e.g. bathing, feeding) | 0.006 | 0.084 | 0.285 | 0.36 | −0.092 | −0.103 | −0.092 | 0.016 | −0.003 | 0.033 | 0.295 | 0.133 | 0.227 | 0.057 |

(Continues)

**APPENDIX B** (Continued)

| | 34. Understand and comply with policies and procedures | 35. Discuss health risk behaviours with patients | 36. Implement falls prevention assessments and strategies | 37. Implement pressure injury assessments and strategies | 38. Discuss relevant preventive health strategies with patients | 39. Confidently apply the 6-rights of medication administration to prevent medication errors | 40. Identify the need for allied health involvement | 41. Encourage patients to improve their health habits | 42. Provide education to patients and families | 43. Evaluate the impact of social factors on illness (e.g. employment and socioeconomic status) | 44. Appreciate the importance of a patient's cultural and/or ethnic background | 45. Consider the influence that a patient's religion/spirituality may have on his/her treatment regime | 46. Care for patients holistically | 47. Take responsibility for your own learning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23. Set up an intravenous line | 0.168 | 0.357 | 0.158 | 0.045 | 0.33 | 0.482 | 0.215 | 0.315 | 0.281 | 0.359 | 0.058 | 0.106 | 0.1 | 0.211 |
| 24. Care for intravenous cannulas | 0.169 | 0.28 | 0.14 | 0.014 | 0.265 | 0.412 | 0.184 | 0.248 | 0.256 | 0.288 | 0.087 | 0.139 | 0.163 | 0.247 |
| 25. Perform circulation observations | 0.238 | 0.462 | 0.148 | 0.094 | 0.358 | 0.219 | 0.28 | 0.388 | 0.371 | 0.412 | 0.247 | 0.206 | 0.253 | 0.372 |
| 26. Perform neurological observations | 0.311 | 0.456 | 0.205 | 0.222 | 0.395 | 0.245 | 0.386 | 0.37 | 0.374 | 0.412 | 0.198 | 0.224 | 0.374 | 0.442 |
| 27. Perform an ECG | 0.153 | 0.297 | 0.136 | −0.077 | 0.253 | 0.253 | 0.156 | 0.328 | 0.26 | 0.339 | 0.144 | 0.205 | 0.207 | 0.289 |
| 28. Insert urinary catheters | 0.198 | 0.374 | 0.127 | 0.049 | 0.381 | 0.451 | 0.284 | 0.415 | 0.363 | 0.479 | 0.229 | 0.284 | 0.156 | 0.262 |
| 29. Care for urinary catheters | 0.334 | 0.255 | 0.297 | 0.314 | 0.268 | 0.135 | 0.283 | 0.195 | 0.217 | 0.196 | 0.192 | 0.216 | 0.238 | 0.305 |
| 30. Perform simple wound dressings | 0.123 | 0.282 | 0.127 | 0.151 | 0.205 | 0.399 | 0.347 | 0.267 | 0.37 | 0.397 | 0.196 | 0.199 | 0.197 | 0.375 |
| 31. Perform BGLs and manage appropriately | 0.146 | 0.314 | 0.138 | 0.084 | 0.294 | 0.39 | 0.291 | 0.257 | 0.325 | 0.277 | 0.195 | 0.137 | 0.255 | 0.456 |
| 32. Identify clinical emergencies and activate proper response system (e.g. MET call) | 0.275 | 0.334 | 0.044 | 0.032 | 0.343 | 0.269 | 0.367 | 0.161 | 0.288 | 0.293 | 0.216 | 0.208 | 0.198 | 0.329 |
| 33. Identify signs of clinical deterioration | 0.494 | 0.543 | 0.266 | 0.313 | 0.498 | 0.378 | 0.58 | 0.42 | 0.551 | 0.473 | 0.279 | 0.365 | 0.412 | 0.567 |
| 34. Understand and comply with policies and procedures | 1 | 0.422 | 0.41 | 0.406 | 0.416 | 0.227 | 0.493 | 0.396 | 0.442 | 0.319 | 0.472 | 0.601 | 0.567 | 0.532 |
| 35. Discuss health risk behaviours with patients | 0.422 | 1 | 0.269 | 0.291 | 0.655 | 0.366 | 0.529 | 0.723 | 0.703 | 0.639 | 0.416 | 0.467 | 0.365 | 0.457 |
| 36. Implement falls prevention assessments and strategies | 0.41 | 0.269 | 1 | 0.703 | 0.279 | 0.038 | 0.325 | 0.206 | 0.229 | 0.339 | 0.369 | 0.278 | 0.415 | 0.329 |
| 37. Implement pressure injury assessments and strategies | 0.406 | 0.291 | 0.703 | 1 | 0.332 | 0.137 | 0.376 | 0.234 | 0.267 | 0.218 | 0.407 | 0.319 | 0.4 | 0.299 |
| 38. Discuss relevant preventive health strategies with patients | 0.416 | 0.655 | 0.279 | 0.332 | 1 | 0.417 | 0.577 | 0.607 | 0.587 | 0.477 | 0.291 | 0.377 | 0.31 | 0.44 |
| 39. Confidently apply the 6-rights of medication administration to prevent medication errors | 0.227 | 0.366 | 0.038 | 0.137 | 0.417 | 1 | 0.458 | 0.401 | 0.411 | 0.418 | 0.196 | 0.326 | 0.169 | 0.289 |
| 40. Identify the need for allied health involvement | 0.493 | 0.529 | 0.325 | 0.376 | 0.577 | 0.458 | 1 | 0.462 | 0.599 | 0.575 | 0.333 | 0.407 | 0.52 | 0.513 |
| 41. Encourage patients to improve their health habits | 0.396 | 0.723 | 0.206 | 0.234 | 0.607 | 0.401 | 0.462 | 1 | 0.75 | 0.644 | 0.488 | 0.516 | 0.476 | 0.493 |
| 42. Provide education to patients and families | 0.442 | 0.703 | 0.229 | 0.267 | 0.587 | 0.411 | 0.599 | 0.75 | 1 | 0.582 | 0.42 | 0.5 | 0.443 | 0.543 |

(Continues)

**APPENDIX B** (Continued)

| | 34. Understand and comply with policies and procedures | 35. Discuss health risk behaviours with patients | 36. Implement falls prevention assessments and strategies | 37. Implement pressure injury assessments and strategies | 38. Discuss relevant preventive health strategies with patients | 39. Confidently apply the 6-rights of medication administration to prevent medication errors | 40. Identify the need for allied health involvement | 41. Encourage patients to improve their health habits | 42. Provide education to patients and families | 43. Evaluate the impact of social factors on illness (e.g. employment and socioeconomic status) | 44. Appreciate the importance of a patient's cultural and/or ethnic background | 45. Consider the influence that a patient's religion/spirituality may have on his/her treatment regime | 46. Care for patients holistically | 47. Take responsibility for your own learning |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43. Evaluate the impact of social factors on illness (e.g. employment and socioeconomic status) | 0.319 | 0.639 | 0.339 | 0.218 | 0.477 | 0.418 | 0.575 | 0.644 | 0.582 | 1 | 0.465 | 0.485 | 0.368 | 0.375 |
| 44. Appreciate the importance of a patient's cultural and/or ethnic background | 0.472 | 0.416 | 0.369 | 0.407 | 0.291 | 0.196 | 0.333 | 0.488 | 0.42 | 0.465 | 1 | 0.792 | 0.667 | 0.471 |
| 45. Consider the influence that a patient's religion/spirituality may have on his/her treatment regime | 0.601 | 0.467 | 0.278 | 0.319 | 0.377 | 0.326 | 0.407 | 0.516 | 0.5 | 0.485 | 0.792 | 1 | 0.632 | 0.587 |
| 46. Care for patients holistically | 0.567 | 0.365 | 0.415 | 0.4 | 0.31 | 0.169 | 0.52 | 0.476 | 0.443 | 0.368 | 0.667 | 0.632 | 1 | 0.595 |
| 47. Take responsibility for your own learning | 0.532 | 0.457 | 0.329 | 0.299 | 0.44 | 0.289 | 0.513 | 0.493 | 0.543 | 0.375 | 0.471 | 0.587 | 0.595 | 1 |
| 48. Reflect on your performance | 0.509 | 0.41 | 0.388 | 0.282 | 0.366 | 0.171 | 0.424 | 0.41 | 0.446 | 0.356 | 0.548 | 0.537 | 0.684 | 0.659 |
| 49. Invest time in developing your knowledge and skills | 0.525 | 0.431 | 0.283 | 0.312 | 0.407 | 0.283 | 0.417 | 0.506 | 0.549 | 0.405 | 0.483 | 0.525 | 0.67 | 0.68 |
| 50. Identify your educational needs | 0.51 | 0.378 | 0.35 | 0.379 | 0.405 | 0.179 | 0.41 | 0.453 | 0.554 | 0.34 | 0.526 | 0.522 | 0.743 | 0.646 |

| | 48. Reflect on your performance | 49. Invest time in developing your knowledge and skills | 50. Identify your educational needs |
|---|---|---|---|
| 1. Confidently communicate with patients and their families | 0.159 | 0.1 | 0.129 |
| 2. Confidently provide care for a person showing signs of aggression | 0.354 | 0.236 | 0.264 |
| 3. Confidently provide care for a person with delirium | 0.362 | 0.282 | 0.24 |
| 4. Confidently provide care for a disoriented person | 0.397 | 0.364 | 0.287 |
| 5. Confidently provide end of life care for patients | 0.233 | 0.252 | 0.223 |
| 6. Manage stress caused by your work | 0.336 | 0.331 | 0.319 |
| 7. Recognize your own clinical limitations | 0.5 | 0.446 | 0.51 |
| 8. Manage your own emotions in distressing clinical situations | 0.391 | 0.421 | 0.415 |
| 9. Balance your work and personal life | 0.451 | 0.443 | 0.442 |
| 10. Remain calm in challenging situations | 0.477 | 0.591 | 0.467 |
| 11. Confidently approach senior staff for help in clinical situations | 0.316 | 0.414 | 0.342 |

(Continues)

**APPENDIX B** (Continued)

| | 48. Reflect on your performance | 49. Invest time in developing your knowledge and skills | 50. Identify your educational needs |
|---|---|---|---|
| 12. Work collaboratively in a multidisciplinary team | 0.235 | 0.351 | 0.283 |
| 13. Be sensitive to the needs of colleagues | 0.451 | 0.465 | 0.489 |
| 14. Co-ordinate a comprehenisve patient management plan with allied health professionals | 0.288 | 0.312 | 0.341 |
| 15. Feel confident in delegating tasks to other healthcare personnel | 0.249 | 0.282 | 0.297 |
| 16. Identify the need for medical review and/or allied health assessment | 0.291 | 0.342 | 0.373 |
| 17. Record clinical data accurately and systematically | 0.454 | 0.552 | 0.56 |
| 18. Carry out an efficient physical assessment | 0.453 | 0.468 | 0.43 |
| 19. Manage your time efficiently | 0.407 | 0.422 | 0.362 |
| 20. Prioritize competing patients' needs | 0.412 | 0.571 | 0.496 |
| 21. Accurately perform vital signs observations | 0.448 | 0.512 | 0.469 |
| 22. Assist with Activities of Daily Living (e.g. bathing, feeding) | 0.174 | 0.134 | 0.168 |
| 23. Set up an intravenous line | 0.145 | 0.19 | 0.138 |
| 24. Care for intravenous cannulas | 0.214 | 0.302 | 0.248 |
| 25. Perform circulation observations | 0.296 | 0.34 | 0.298 |
| 26. Perform neurological observations | 0.342 | 0.416 | 0.342 |
| 27. Perform an ECG | 0.244 | 0.256 | 0.256 |
| 28. Insert urinary catheters | 0.192 | 0.256 | 0.21 |
| 29. Care for urinary catheters | 0.3 | 0.382 | 0.294 |
| 30. Perform simple wound dressings | 0.326 | 0.329 | 0.293 |
| 31. Perform BGLs and manage appropriately | 0.331 | 0.351 | 0.283 |
| 32. Identify clinical emergencies and activate proper response system (e.g. MET call) | 0.195 | 0.208 | 0.177 |
| 33. Identify signs of clinical deterioration | 0.334 | 0.417 | 0.394 |
| 34. Understand and comply with policies and procedures | 0.509 | 0.525 | 0.51 |
| 35. Discuss health risk behaviours with patients | 0.41 | 0.431 | 0.378 |
| 36. Implement falls prevention assessments and strategies | 0.388 | 0.283 | 0.35 |
| 37. Implement pressure injury assessments and strategies | 0.282 | 0.312 | 0.379 |
| 38. Discuss relevant preventive health strategies with patients | 0.366 | 0.407 | 0.405 |
| 39. Confidently apply the 6-rights of medication administration to prevent medication errors | 0.171 | 0.283 | 0.179 |
| 40. Identify the need for allied health involvement | 0.424 | 0.417 | 0.41 |
| 41. Encourage patients to improve their health habits | 0.41 | 0.506 | 0.453 |
| 42. Provide education to patients and families | 0.446 | 0.549 | 0.554 |
| 43. Evaluate the impact of social factors on illness (e.g. employment and socioeconomic status) | 0.356 | 0.405 | 0.34 |
| 44. Appreciate the importance of a patient's cultural and/or ethnic background | 0.548 | 0.483 | 0.526 |

(Continues)

**APPENDIX B** (Continued)

| | 48. Reflect on your performance | 49. Invest time in developing your knowledge and skills | 50. Identify your educational needs |
|---|---|---|---|
| 45. Consider the influence that a patient's religion/spirituality may have on his/her treatment regime | 0.537 | 0.525 | 0.522 |
| 46. Care for patients holistically | 0.684 | 0.67 | 0.743 |
| 47. Take responsibility for your own learning | 0.659 | 0.68 | 0.646 |
| 48. Reflect on your performance | 1 | 0.765 | 0.742 |
| 49. Invest time in developing your knowledge and skills | 0.765 | 1 | 0.866 |
| 50. Identify your educational needs | 0.742 | 0.866 | 1 |

The coloured values in Appendix B represent correlation values greater than 0.3 when first testing for the appropriateness of using principal components analysis. [Colour table can be viewed at wileyonlinelibrary.com]

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