The MHN shortage: Undergraduate Nursing Students

Working as AINs in Inpatient Mental Health Settings.

Working Title - Nursing Students as AINs in Inpatient MH

Abstract

The population of mental health nurses is ageing and in the next few years we can expect many to retire. This paper makes an argument for the employment of undergraduate nursing students as assistants in nursing in mental health settings as a strategy to encourage them to consider a career in mental health nursing.

Skill mix in nursing has been debated since at least the 1980s. It appears that the use of AINs in general nursing is established and will continue. The research suggests that with the right skill mix nursing outcomes and safety are not compromised.

It seems inevitable that assistants in nursing will increasingly be part of the mental health nursing workforce; it is timely for mental health nurses to lead these changes so nursing care and the future mental health nursing workforce stays in control of nursing.

Key words

Undergraduate nursing students, assistants in nursing, AIN, recruitment, shortage, mental health nursing,

Addressing the MHN shortage: Undergraduate Nursing Students

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Introduction

To qualify as a mental health nurse in Australia nurses need to complete an undergraduate degree in nursing they can then register to practice as a nurse. To become a specialist, they then need to study Graduate Diploma or Masters in Mental Health Nursing at a university offering these courses (1). Unfortunately there is a serious and worsening shortage of qualified Mental Health Nurses in Australia (2) and in most of the developed world (3, 4).

This paper puts a case for undergraduate nursing students to be offered the opportunity to work as Assistants in Nursing (AIN) in inpatient mental health units as one strategy to address this shortage. A literature search revealed little research on this issue, or indeed nursing skill mix, in mental health settings. Because of the lack of research in mental health nursing this paper draws on literature from nursing homes and medical-surgical nursing to support the arguments.

AIN is the term used in Australia for people who have completed a Certificate III in Health Care Services or recognised equivalent. In Australia AINs are supervised and delegated aspects of nursing care by registered nurses (RNs). RNs assess the competence of, supervise and delegate aspects of nursing care to assistants in nursing. AINs remain responsible to an RN (5).

One equivalency, for the certificate III, is successful completion of the first year of an undergraduate bachelor of nursing degree (6). AINs are part of the nursing workforce across the developed world but different terms are used for this role. In the United States the most commonly encountered term is ‘Unlicensed Assistive Personnel’ (UPA) but ‘Nurse

Extenders', 'Patient Care Partners', 'Multi Skilled Worker', 'Technician', and 'Personal Care Assistants' (PCA) are also used. In the UK and some of Europe common terms include 'Assistants in Nursing' and 'Auxiliary Nurses' (AN) in mental health the terms 'Personal Care Assistants' and 'Support Time and Recovery Workers' are also used.

Search Strategy

For this opinion piece the data bases *CINAHL, MEDLINE, PsychARTICLES* and *PsychINFO* were searched using the search terms from 1990 to present*: Unlicensed Assist Personnel, Nurse Extenders, Assistant* in Nursing, Auxiliary Nurses, Nursing Assistants, Nursing Students, Skill-mix, Mental and Mental Health.* The policies of the NSW Nurses Association and the Australian Nursing Federation were also searched. Data base searches were closed on 2nd April 2012. 472 articles were identified, of those 52 research articles were used to inform this paper.

Background

The issues around the use of AIN/UPA/AN/PCA (here after referred to as AIN) working in inpatient settings has been debated since the 1980s (7-12). Dietz (7) argued there are a number of pros and cons associated with the practice. The positive aspects include that AINs can free up registered nurses (RNs) from mundane and repetitive tasks. The converse argument was that AINs would replace RNs which will save money but impact negatively on patient care. During the 1990s the debate was between nurse managers and clinical nurses. The nurse managers were trying to fill increased workloads with reduced funding so the use of AINs was seen as a reasonable option, but the clinical nurses argued this saving would be at the expense of quality of nursing care (7, 8).

During the 1990s, in the United States, the increased use of AINs was driven not only by potential cost savings but also a shortage of RNs. The shortage of RNs resulted from both a

lack of new nurse graduates and increased demand (9). Australian health care is in a similar position today, this trend continues and is likely to worsen as the nursing workforce ages (13-15)

A 1990s review of the literature on AINs (8) found that most health services in the United States used AINs. The authors argued nurses need to consider the impact of these changes on their practice and make sure they do not lose control of nursing. Since that time a number of large international studies, mostly within medical-surgical units, indicate that as RN- patient ratios decreased the level of work satisfaction decreased and burnout increased (16-18). Safety was also compromised as the RN-patient ratio decreased, that is, there was an increase in death from hospital complications and an increased mortality (17, 19, 20).

While the research above did not consider the contribution of AINs, it does point to future challenges as many of the present RN workforce approach retirement; in an environment that has a growing community demand for nurses as the general population ages. If nurses do not take the initiative in these inevitable changes these workers may become personal care assistants or unqualified health workers under the supervision of medical officers or administrators and the roles they undertake could be lost to nursing.

Nursing Shortage: The Challenge for Mental Health Nursing

It has been reported in the literature that introduction of Bachelor Nursing Programs in Australia has created difficulties in recruiting sufficient graduates into mental health nursing. There is limited mental health nursing in undergraduate nursing programs and few mental health nurse academics, therefore there is little incentive for undergraduate students studying nursing to consider mental health nursing as a career option (21-28). Some authors report the students are discouraged from mental health nursing (23, 29-31). Consequently there is a critical shortage of mental health nurses (32-34). This shortage will worsen as the aging

workforce of mental health nurses reach retirement age (3, 15, 35). This impending worsening of the nursing shortage is across the nursing profession but, while the current age of the average nurse is mid 40s, the age of the average mental health nurses is late 50s (35).

One strategy to encourage undergraduate nursing students to consider a career in mental health nursing is to offer them the opportunity to work in mental health. Student nurses who have a positive clinical experience are more likely to consider mental health nursing as a career (36, 37).

Findings from a Victorian (Australia) study with 192 students, using a the Nursing Self-Report Questionnaire and a time-series quasi-experimental design, indicated mental health nursing courses that include both clinical and theoretical learning improve knowledge and skills in mental health nursing as well as attitude to mental health nursing (statistic not reported) (38). These studies indicate that providing nursing students with a clinical experience in mental health may increase the future flow of nurses into mental health.

If nurses trial and evaluate the impact of student AINs in mental health they could be addressing both the issue of the shortage of mental health nurses and the issue of including AINs in the skill mix.

Nursing Homes

The use of AINs began in the nursing home sector. In this sector the proportion of AINs has been steadily increasing. This increase was in response to shortages of RNs and an attempt to contain costs. Although a significant portion of the Australian aged care work force is now made up of AINs the proportion compared to RNs is difficult to ascertain (13).

AINs spend their time in nursing homes on direct patient care, freeing RNs to undertake more technical clinical and administration work that is outside the scope of AINs practice. In a Belgian nursing home study (39), that included 26 care institutions for older people,

findings indicated that although RNs spent more time on practical nursing tasks (e.g. stoma care, dressings injections etc) and administration (documentation) there was no difference between the two groups in the amount of time they spent on supportive tasks (counselling, education, social activities and therapies). It was not clear from this study if the quality of the care delivered by the AINs was different to that provided by RNs.

AINs in the aged care sector find their work rewarding. In a study of 86 nursing homes, in Massachusetts, results indicate AINs found their work rewarding despite low status, low wages and heavy workloads (40). They found the relationships they formed with residents rewarding and viewed their work, helping people to do things they could not do for themselves, as valuable (40).

Medical-Surgical Nursing

A review of the international literature investigating the linkage between RN staffing and patient outcomes, at a time of growing shortages, concluded that substituting RNs with lower skilled workers had adverse effects on outcomes (41). This review used the CINAHL data base to search works from 1982 to 2005. Findings from this review indicated that as the RN to patient ratio increased the likelihood of adverse incidents decreased.

A large Australian study, by Duffield et al.,, aimed to inform policy development on nursing workforce issues (42). This study included 27 hospitals and 286 wards and investigated nursing skill-mix (defined as percentage of RNs) to patient outcomes. This study collected longitudinal data from 2001 to 2006 from the 286 wards and in-depth cross-sectional data during 2004/2005. Skill-mix findings indicated that RN staffing was about 83% across all hospitals (42). Not all hospitals had the same skill-mix, with metropolitan hospitals generally having a higher proportion of RNs. Higher proportions of RNs was associated with decreases in Outcomes Potentially Sensitive to Nursing (OPSN) including death from hospital

complications, medication errors and other medical-surgical related outcomes. The presence of medication errors decreased with the presence of a nurse educator and less casual staff. The finding of 'the presence of a nurse educator' was identified a number of times in this report as correlating with decreased OPSNs but no further explanation was offered by the authors. These findings are consistent with Duffield et al.'s other work (43, 44).

As discussed above some research indicates that a lower RN to patient ratio was associated with poor outcomes (17, 19, 20). This implies a linear relationship between RN - patient ratios and outcome, but this is not the case according to other authors. A systematic review investigating the relationship between the nursing workforce and patient outcomes in acute general inpatient units was undertaken (45). The review included 22 large studies, of variable quality, from 1990 to 2004 using Medline, CINAHL, EMBASE, PsycINFO, HMIC, SIGLE, Cochrane Library, British Nursing Index and NLM Web of Knowledge. The review also used 'grey literature' including the American Nursing Association, relevant departments of health and associations of health policy and the World Health Organization. Twenty-two large studies were included. Together they strongly suggested that higher ratios of RNs to AINs were associated with improved patient outcomes for example reduced mortality rates and complications. Interestingly this effect seems to show diminishing returns, that is, ultimately improvement plateaued: unfortunately the authors of this review did not indicate where that plateau occurred.

These findings were similar in a United States study that investigated adverse outcomes in 39 medical-surgical units in 11 hospitals (46). Findings indicated there was a non-linear relationship between the proportion of RNs on the units, medication errors and fall rates. That is, as the proportion of RNs on a unit increased from 50% to 85% the rate of medication errors and fall rates declined, but as the RN proportion increased from 85% to 100% the rate of medication errors and fall rates increased. That is, there does seem to be a point at which

increasing the proportion of RNs does not improve outcomes. The authors cited similar findings in other studies and explained this by noting that higher proportions of RNs may increase the likelihood of reporting.

Often the introduction of nursing student AINs can be threatening to the established RNs, but as they become used to the idea, RNs are more accepting. In a study, exploring the implementation of AINs (who were completing an undergraduate nursing degree), in five haemodialysis units, that employed 59 RNs in Sydney (Australia), findings indicated that, although they were initially reluctant, after six months the RNs acknowledged they coped well with the introduction of AINs and reported that their workloads had not increased. Results also indicated there was little difference in adverse outcomes (47). The study was a pre-post test study design that used: a modified version of the Incident and Revised Nursing Work Index to investigate the nurses' change in attitudes, the Information Management Systems to investigate adverse patient events over the time and a comparison of patient treatment episodes and staffing levels to investigate the busyness of units.

Thirty-three (63%) of the nurses participated in both-base line and follow-up data collection. There was little change in the reports of critical incidents (0.28/100 treatments pre-AINs and 0.11/100 treatments post). In comparison with base line data at follow-up more nurses agreed that they coped with the change (baseline 38% follow up 72% agreed or strongly agreed P=.007, r not reported) and their work load had not increased (baseline 48% follow up 10% agreed or strongly agreed p=.003, r not reported). The implications are that the use of undergraduate nursing student AINs was a useful strategy in handling the shortfall in specialised haemodialysis nurses. In the short term, it meant less overtime and less use of casual nursing staff. The use of student nurse AINs increased the likelihood of their choosing to work in renal nursing when they finished their degree (47).

Mental Health Nursing

In nursing homes and general hospitals AINs' work is focused on spending time with patients. In mental health nursing the main focus of nursing is on direct patient contact but, because of the work loads, mental health nurses reported that it was difficult to find the time to spend with patients on inpatient units (24, 33).

A UK study collected data, from 15 RNs and 24 AINs, during the day shift from three acute inpatient mental health units (48). The units studied were staffed by 2-3 RNs and up to 5 AINs. RNs and AINs were interviewed hourly over the course of the study on how they spent their time. Findings indicated the RNs spent more time on administrative tasks (ward and patient-based paperwork) whilst AINs undertook domestic duties and spent time with patients. This difference in working patterns was reflected in the mean amount of time that the two groups reported spending with patients. Overall, AINs reported spending a mean of 31.73 (SD: 22.83) minutes of patient contact per hour, significantly more than RNs who reported a mean of 18.48 (SD = 17.63) minutes per hour ($t = 6.55$, $p < .001$). AINs reported significantly higher levels of satisfaction with their work (Mean = 7.43 (SD = 2.05) vs. 6.36 (SD=1.92), $t = 5.74$, $p < .001$). A significant positive correlation was observed between work satisfaction ratings and estimated patient contact time ($r = 0.35$, $p < .001$) (48).

A study, of the time spent by mental health providers in 10 Veterans Health Administration (VHA) services in the United States, included licensed practice nurses (LPNs) (49). The study used self report of mental health professionals, including RNs (n=281) and LPNs. (n=97), of how they spent their time. Descriptive statistics indicated RNs spent more time on administration and less time on clinical care than LPNs (49).

A 1998 UK study explored the experiences of 14 consumers of a community mental health intensive care service (12). Data were collected using Kelly's repertory grid technique using structured interviews with 14 participants who were consumers. While the authors reported that there was a high proportion of unqualified staff there was no detail of the skill-mix in the

study. Participants reported they valued the client-centred relationship and counselling offered by the health care assistants. It seemed that consumers did not distinguish between unqualified staff and RNs, the important thing was the amount of time the staff had to spend with participants. As the RNs were busy with other tasks the unqualified staff spent more time with them (12).

These studies indicate that in clinical settings with high AIN ratios the RNs spend much less time with consumers. This is concerning, as the introduction of AINs (in high ratios) may impact negatively on the quality of care given. In this last study (12) health care assistants seem to be offering counselling and developing therapeutic relationships – in the past that has been the role of mental health nurses. Clearly an ad hoc introduction of AINs into mental health would be a mistake. The risk is that the changes in skill mix impacts on the time qualified mental health nurses have to spend with consumers negatively effecting the quality of care they receive. The skill mix needs to be rigorously explored and evaluated otherwise there is a risk that the services are deskilled and consumers may lose out.

There was limited research on the use of AINs in mental health and little general literature uncovered in the searches undertaken for this paper. This was also the experience of Cleary et al (30) in their discussion paper on this issue. Cleary et al (30) drew on mostly undergraduate nursing literature to delineate factors that might contribute to undergraduate nurses working as AINs choosing mental health nursing as a career. These nine factors included: acceptance by nurses, fitting in with the culture, managing the workload, developing a realistic appraisal of the effectiveness and limits of psychiatry, constructive learning from direct interpersonal interactions with clients, practising communication skills, being supported in a structured way, working with positive role models, and the overall quality of the employment setting (30). With longer time spent on inpatient units student nurse AINs are more likely to have these experiences.

Conclusions

It is difficult to attract graduate nurses to mental health nursing, mostly because undergraduates do not regard mental health favourably (21, 23, 24, 30, 31, 50, 51) . The employment of undergraduate AINs is already occurring (30). Unfortunately this has not been evaluated in terms of safety for consumers, impact on RNs, their work or other outcomes. Nor has it been evaluated as a strategy to encourage graduate nurses to undertake mental health nursing as a career.

NSW Health policy supports the employment of undergraduate nursing students working as AINs in acute settings (6). This policy seems consistent with the NSW Nurses Association (6) policy on Assistants in Nursing in which it is clear that nurses should be under the supervision of an RN and should work within the scope of their educational preparation. The NSW Nurses Association policy on employing undergraduate students indicates it should complement their formal education and they should not be employed to supplement RNs and ENs (52).

AINs have become part of the skill-mix in the delivery of nursing services. In the general setting the evidence indicates that with the correct balance of RNs to AINs the safety of consumers is not compromised. The evidence also suggests that in a general setting AINs make a positive contribution.

It seems, from the very limited research undertaken, exploring skill mix in mental health, When AINs are included in the skill mix RNs spend less time with consumers. This seems consistent with the impact of the change in skill mix in nursing homes. Clearly the introduction of AINs into mental health needs to be explored and evaluated to make sure the changes in skill mix do not adversely affect the care to consumers.

If AINs are introduced (considering the aging population of RNs and increasing costs this is probably inevitable) mental health nurses need to heed Krainovich-Miller, et al.'s advice from 1997 and take control of the process. The quality of inpatient care may suffer if skilled mental health nurses work is focused on paperwork not spending time with consumers.

Mental health services are facing a worsening crisis, due to lack of the lack of qualified mental health nurses. Nursing students in undergraduate programs mostly do not see mental health as an attractive career choice. Nursing students who have exposure to positive experiences during their clinical experience can be attracted to mental health nursing as a career. While increasing the number of nursing students that are qualified to work as AINs in the mental health setting appears to be worthwhile, it is critical at the outset to adequately assess the implications of this practise.

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