

Bridging the theory–practice gap in pressure injury prevention for assistants in nursing: the impact of a formal education program at St Vincent's Private Hospital

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Abstract

This article outlines the development, implementation and evaluation of a formal training program in skin care and pressure injury prevention and management. The program was developed for assistants in nursing (AINs) at St Vincent's Private Hospital (SVPH), Sydney. SVPH is a not-for-profit, acute care facility with 250 beds. Our current case mix index for January to May 2012 is 1.87¹. In late 2009 the wound clinical nurse consultant (CNC) identified that the AIN cohort received no formal education in skin and pressure injury prevention and management. In 2010 a tailored program specifically for AINs was developed by the wound CNC in consultation with the Nursing Education Training and Development Council to update and extend AINs' knowledge and skills in this area. With the support of the nurse unit managers (NUM) and clinical nurse educators (CNE), all 19 AINs enrolled completed the course successfully. On review of the 2010 Pressure Ulcer Point Prevalence Audit (PUPPA) results, there was a decrease in the prevalence in pressure injury from 11% to 7%, with the only new pressure injury intervention being the AIN education program. Although we have no true measure as to the effect of the AIN education program, it can be hypothesised this was a significant contributing factor to the reduction of pressure injuries acquired at SVPH.

Introduction

In this paper the background to the development of a formal assistant in nursing (AIN) education program at St Vincent's Private Hospital (SVPH), Sydney, is outlined. The Pressure Ulcer Point Prevalence Audit (PUPPA) and resultant education gap analysis that identified AINs do not receive education in skin care and pressure injury prevention and management is summarised. Finally, the implementation evaluation and outcome of the formalised education program are discussed.

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Background

Pressure ulcers are recognised as largely preventable adverse events and yet they continue to be a significant problem within all acute, subacute and aged care settings². At SVPH, although the prevalence of acquired pressure ulcers is low, we are continually looking at ways to minimise their acquisition and enhance patient outcomes for those with existing pressure ulcers.

Pressure ulcers are caused by unrelieved pressure, resulting in damage to the skin and underlying tissue³ and are costly in terms of lost wages, productivity and human suffering⁴. Pressure ulcers pose a significant burden to health care organisations and are associated with longer hospital stays and higher hospitalisation costs⁵. The major causative factors in pressure ulcer development are tissue compression and shearing forces. The intensity and duration of these forces, along with the individual's capacity to tolerate pressure, will influence whether the pressure exerted is sufficient enough to result in tissue injury and the development of a pressure ulcer.

Pressure ulcers are considered preventable⁵⁻⁶, thus health care organisations need to be continuously reviewing pressure

injury prevention and management strategies to reduce the cost to patients and the organisation.

Management and prevention of pressure ulcers at SVPH

In recent years, prevention and management of pressure ulcers at SVPH has focused on increasing awareness among health care clinicians for the prompt identification of patients at risk. This has been facilitated by the introduction of prevention strategies, use of pressure-relieving equipment and appropriate pressure ulcer management as recommended in the Australian Wound Management Association pressure injury prevention guidelines³. Clinicians are educated to use their professional judgement and clinical knowledge in conjunction with our computer web deLacy risk assessment tool, a modified Waterlow scale⁷, when they are identifying patients at risk of developing pressure ulcers.

Prentice *et al.*⁸ and Defloor⁹ both note that the effectiveness of pressure ulcer prevention programs will not be realised unless ongoing monitoring systems are in place. Pressure ulcer prevention and management at SVPH is monitored and measured through indicators as part of the SVPH performance management tool Balanced Scorecard™. Each month, a deLacy pressure ulcer risk compliance report from each clinical area is loaded to the Balanced Scorecard with the incidence of pressure ulcers acquired during admission to that clinical area. All known incidents of pressure ulceration are reported on the SVPH incident reporting system Risk Man. This information is collated and reviewed monthly by the wound clinical nurse consultant (CNC) and distributed to the director of nursing (DON), clinical areas and to the Nursing Quality and Safety Council. When trends are identified, they are investigated by the clinical area and by the wound CNC and quality projects are developed and implemented. For example, in one area of the hospital a heel pressure project was undertaken in 2007. As a result of this project the number of acquired heel pressure ulcers reduced by 50% within one year. With ongoing pressure injury prevention and management education focusing on heel injury, the number of acquired heel pressure injuries has remained low. While monitoring systems are in place, the acquired pressure ulcers at SVPH, although low, remained consistent. The only major reduction in acquired pressure injury over the last four years was associated with the heel pressure project (2005–2009).

For this reason, in 2009 the Wound CNC proposed an evaluation of the pressure ulcer management and prevention system utilising a PUPPA. With approval from the Nursing Executive, a PUPPA was conducted at SVPH on 22 September 2009 to determine the prevalence of pressure injuries in patients and to provide a measure for further comparison

studies and benchmarking with other health care facilities. The audit allowed us to evaluate the effectiveness of the current pressure ulcer prevention and management policies and procedures at SVPH.

In mid-2009 the PUPPA was modelled (with permission) on that developed by the Safety & Quality Unit of St Vincent's and Holy Spirit Health, Queensland. The process was adapted to suit the SVPH environment and aimed to protect the rights of vulnerable participants, enable the accurate identification of the stage of pressure ulcer and allow appropriate comparison between similar organisations. Considerable planning was undertaken to ensure the audit was efficiently and effectively executed.

The PUPPA report released in October 2009 focused on the methodology of the audit and the prevalence of pressure ulcers. It showed that the overall prevalence of pressure ulcers at SVPH was 11%. The SVPH prevalence rate was the lowest compared with our benchmarking facilities and lower than the industry standards. This low pressure ulcer prevalence rate reflected favourably on the current prevention and management policies and procedures.

A major recommendation of this interim PUPPA report was that education for clinical staff in relation to skin care, prevention and management of pressure ulcers be continued. At SVPH a comprehensive education program, including twice-yearly in-servicing is coordinated by the wound CNC. As a result, the wound CNC was challenged to develop novel educational approaches to skin care and pressure injury prevention and management.

The wound CNC determined that a gap analysis of education provided should be carried out next to provide necessary evidence to underpin any educational decisions they would make. This identified an education gap, highlighting the limited amount of formal education in relation to skin care and pressure ulcer prevention and management provided for AINs. AINs work under the direction of registered nurses (RNs) and/or enrolled nurses (ENs). They assist in performing patient care and assist with activities of daily living. Recently employed AINs at SVPH must attain a Certificate IV Aged Care Certificate. Needleman *et al.*¹⁰ and Howe¹¹ both discussed how AINs in acute health care facilities provided 21% of total nurse-hours in patient care. This is a significant amount of patient care time that, with improved education for AINs, could bring about enhanced patient outcomes.

Prior to the 2009 PUPPA, the clinical nurse educators (CNEs) and the wound CNC provided pressure injury prevention and management e-learning modules, in-service and study days

facility-wide to nursing staff. While AINs are encouraged to attend, it has been frequently observed by both CNCs and CNEs that AINs infrequently attend and rarely ask questions or are interactive within these sessions when they do attend. Ersek and Wood¹² also discussed that AINs encountered difficulties participating in education sessions. This limited the potential impact of education programs in acute care facilities. These authors cited numerous difficulties and include language barriers, lack of prior learning and confidence. Following the needs assessment to engage the SVPH AINs, an initial session was held to discuss the proposed program. During this session it was considered important to establish that these sessions would be carried out in a supportive, non-threatening environment that would be conducive to adult learning¹³⁻¹⁴.

The AIN program

In early 2010 a tailored program specifically for AINs was developed. The aim of the program was to update and extend the knowledge and skills of AINs in skin care and pressure injury prevention and management. It was believed that this would increase the AINs' perception of their importance in the clinical team. It was postulated that this increase in knowledge and consequent sense of self-worth would, in turn, enhance clinical communication, improve skin care, prevent pressure ulcer development and/or result in early identification of pressure ulcers so appropriate pressure ulcer management and guidelines could be put in place.

Four 30-minute education sessions were developed based on the current skin care and pressure injury prevention and management education programs at SVPH. These sessions were modified to meet the clinical needs and the level of education and language ability of the AIN cohort. As adult learning theory suggests, many different learning styles were incorporated into the sessions^{15,16}. The use of PowerPoint™ slides, group discussions, quizzes and case studies with photographs assisted in visual, audio and kinaesthetic learning styles. The following topics were covered in the sessions: skin assessment; basic skin care; topical cleansing solutions and barrier creams used at SVPH; pressure ulcer prevention and management; skin tear prevention and management; pressure-relieving equipment; personal protective equipment; occupational health and safety requirements and, finally, the importance of timely and accurate communication.

To ensure the maximum attendance of AINs, each session was offered twice over the period of two months. After each session, a summary of the session was given to each AIN, with a simple questionnaire to be completed prior to completion of the course. These educational methods encouraged the AINs

to build on current knowledge and gave them the confidence to use this knowledge in their patient care and when communicating with patients, RNs and ENs in their clinical units. Blankenship and Abby¹⁷ discussed how a similar education program at their facility empowered AINs and increased communication between their AINs, RNs and ENs.

An RN and EN education program aimed at raising awareness was run concurrent with the AIN education program. This education program was aimed at raising awareness among ENs and RNs of the need to communicate with AINs in relation to skin care and any breaks in the skin noticed. This program was also used as a refresher for RNs and ENs in relation to pressure injury risk assessment and prevention and management strategies.

Outcome

All of the 19 AINs enrolled completed the course successfully. A pre- and post-education questionnaire was developed (Appendices 1 and 2). All AINs completed the questionnaire and stated that their knowledge in skin care and pressure injury prevention had increased as had their communication of skin/pressure injury to the RN/EN working in their team. The AINs stated that they had an increased understanding of the importance of their role in the prevention and management of pressure injury. The course had increased their level of satisfaction within the multidisciplinary team. As reported by Howe¹¹, AINs who participated in the education program stated that they were motivated to use their new-found and compounded knowledge to improve patient care. Although not specifically measured, this was reported anecdotally in numerous nursing meetings as was the increased communication about patient skin care between AINs and RNs/ENs in the clinical area. This was also experienced first-hand by the wound CNCs who were more frequently requested to review a potential pressure injury by the AINs. The results of our recent best practice survey revealed increased collaboration, cohesion and increased workplace satisfaction among our nursing directorate.

In September 2010, a second PUPPA was conducted at SVPH. The audit found that there was a decrease in the prevalence in pressure injury from 11% in 2009 (153 patients audited) to 7% in 2010 (150 patients audited). Between the 2009 and 2010 PUPPAs, the only new pressure injury intervention was the AIN education program. Although we have no true measure of the effect of the AIN education program, we can hypothesise that this was a significant contributing factor to the reduction of pressure injuries acquired at SVPH.

In 2011 the AIN education program has been reviewed and is now incorporated into a yearly clinical update education day

for AINs facilitated by the Nursing Education and Training Council. As part of the AIN education project, a secondary project was undertaken in relation to streamlining skin care products, with AINs in each clinical unit becoming involved and becoming clinical resource persons for this ongoing project.

Limitations

There are numerous limitations of this project, including size, lack of statistics and other outcome measures. Another limitation included not formally auditing the RNs and ENs in relation to their opinions of communication, improved patient outcomes, prevention of an adverse event and change in culture as a result of the AIN education program.

Conclusions

Results of the SVPH 2010 PUPPA noted a decrease in pressure injury prevalence from the previous year from 11% to 7%. As the AIN education program was the only new intervention in our already comprehensive prevention and management program, this education program appears to have been a significant contributing factor to the reduction of pressure injuries prevalence at SVPH. The patient and

organisational costs saved in the prevention of the number of pressure injuries far outweigh the costs associated with the development and provision of the AIN education program. There is anecdotal evidence of AINs having increased confidence in their nursing practice. This confidence was portrayed in the AINs' reporting and management of skin care and in improved communication between the AINs, RNs and ENs throughout the clinical areas at SVPH. The results of our recent best practice survey revealed increased collaboration, cohesion and increased workplace satisfaction among our nursing directorate. Currently in Australia, AINs provide 21% of total nurse-hours in acute health care facilities. Given this significant amount of direct patient care time, effective and innovative strategies to enhance the knowledge and skills of AINs should bring about both enhanced patient outcomes and organisational savings.

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Appendix 1. Pre-education questionnaire.

Had you received prior training and education in the following: (please tick the box)	Yes	No
Skin care		
Anatomy and physiology of the skin (skin layers etc.)		
Skin care products		
The importance of the role of the AIN in prevention and management of skin care		
The importance of communication to the RN/EN if you note a reddened area		
The importance of communication to the RN/EN if you note a wound, skin tear or pressure ulcer		
Causes of pressure ulcers		
Prevention of pressure ulcers		
Equipment on prevention of pressure ulcers		
Causes of skin tears		
Management of skin tears		

Appendix 2. Post-education questionnaire.

Do you feel that this course has improved your knowledge in relation to: (please tick the box)	Yes	No
Skin care		
Skin care products		
The importance of the role of the AIN in prevention and management of skin care		
The importance of communication to the RN/EN if you note a reddened area		
The importance of communication to the RN/EN if you note a wound, skin tear or pressure ulcer		
Causes of pressure ulcers		
Prevention of pressure ulcers		
Equipment on prevention of pressure ulcers		
Causes of skin tears		
Management of skin tears		
Management of skin tears		
Would you attend education sessions specifically designed for AINs in the future?		
Was this course presented in a way that it met your educational needs?		