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Educating nurses to care for Military Veterans in civilian hospitals: an integrative literature review

ABSTRACT

Background
In the UK, military veterans will receive care by civilian nurses in civilian hospitals. We propose that the nurses providing this care require an understanding of the unique experiences and specific health needs of veterans to deliver evidence-based care.

Aim
To conduct an integrative review of published literature to explore how nursing programmes prepare nurses to care for the military veteran population in civilian hospitals.

Review methods
A systematic search was undertaken of a range of electronic databases, Google Scholar and hand searching of Military and Veteran health journals. Papers that focused on education of civilian nurses about veteran health and included primary research or description of practice-based innovations were included in the review.

Results
The search generated ten papers that were focused on nurse education in higher education institutions. Several papers focused on simulation as a teaching method for veteran-specific health issues or curriculum developments with educational innovations such as online courses. Six papers focusing in continuing professional education of nurses in the clinical setting were included as supplementary information. All papers reviewed were US focused
and dated between January 2011 and September 2015. Our search concluded that there is a
gap in knowledge in this subject area within a UK context, therefore our review includes UK
background information to support the US findings.

**Conclusion**

Civilian nurses need educational preparation to understand the specific needs of veterans.
Educational institutions in the US have responded to nationwide initiatives to undertake that
preparation. More empirical studies need to be undertaken to develop, test and evaluate
educational innovations for preparing students and nurses delivering care to military veteran in
civilian healthcare settings.

**Keywords**

Education; Nurse; Civilian, Veterans, Military; healthcare.
Educating nurses to care for Military Veterans in civilian hospitals: an integrated literature review

**Introduction**

To understand how the care of military veterans is being incorporated into (civilian) nurse education and training in educational institutions, we undertook an integrative review of published peer-reviewed publications. It is difficult to assess the number of veterans who require nursing care in the United Kingdom (UK), as there are no accurate figures on the number of (military) veterans in the overall UK population. The most comprehensive data is derived from survey extrapolation. In its household survey the Royal British Legion estimated that there are 2.83 million veterans living in the UK, accounting for 4.4% of the population (The Royal British Legion, 2014). These figures compare with estimates of 3.6 million derived from the Adult Psychiatric Morbidity Survey (Woodhead, 2009). On the other hand, the United States (US) has been collecting data on its veterans via the national decennial censuses since 1840 (Richardson & Waldrop, 2003) and the most recent analysis shows that there are 21.8 million veterans in the US (United States Census Bureau, 2015), approximately 6.8% of the overall US population.

In the UK, veterans represent a very heterogeneous group with the government adopting an inclusive definition whereby veteran status is applied to anyone who has served for a day in Her Majesty's Armed Forces, and there is some evidence to suggest that even those that have served for a short period of time may have issues relating to vulnerability (Buckman et al., 2012; Pinder *et al.*, 2012). The mental health of veterans is an area that has also attracted media attention and has been subjected to scrutiny. Contrary to many media reports, epidemiological research suggests that there is no evidence of an ‘impending bow wave’ of mental illness amongst veterans (KCMHR, 2014) although some groups are at higher risk, especially reservists and those regulars that have been deployed in a front-line combat role.

There is also a growing concern about increased physical morbidity in younger veterans, where improvements in body armour, tourniquets and medical evacuation mean that even the most gravely injured are surviving, where this would have been impossible only a few years
ago (Fossey & Hacker Hughes, 2014). The Armed Forces Covenant (Ministry of Defence, 2011) states that ex-Service personnel should receive the same standard and access to care as any other UK citizen, which includes both physical and mental healthcare support. This intention has recently been strengthened by an explicit inclusion in one of the guiding principles in the NHS constitution (Department of Health, 2015).

The largest age-band of UK veterans, are those that are 65+ years, (3.17 million) and this comprises approximately 28% of the overall 65+ years UK population (Age UK, 2015). The proportion of military veterans increases significantly as many males in the older age-bands have served in historical conflicts (WWII, Korean War etc.) or undertaken National Service. As older people currently account for 45% of all in-patient episodes in general and acute hospitals (Parsonage, Fossey and Tutty, 2012) it is inevitable that nurses working in either of those settings will come in contact with people that have served in the UK military at some point in their working career.

The nurse providing care for veterans require an understanding of the specific health needs of this group of patients if they are to deliver evidence-based care (Miltner et al., 2013). While nurses who work in veteran specific healthcare facilities may have the training and understanding of veteran-specific healthcare needs, the challenge is to prepare nurses in civilian hospitals and primary care settings to also understand and recognise veteran-specific care requirements.

The NHS provides universal healthcare and, as a rule, veterans should receive treatment alongside other patients. Recent policy changes following conflicts in Iraq and Afghanistan have led to the development of ‘veteran-specific’ mental health and prosthetic services (Murrison, 2010, 2011) within the NHS. This has not been accompanied, however, by a requirement of nurses working in those specialist areas to undergo formal nurse educational or training programmes to care for the specific healthcare needs of veterans. In the US the Veterans Health Administration (VHA) provides care to veterans and their families across healthcare domains in the US although it has been suggested that just over a half of veterans
are cared for through this system (Lee et al., 2014; Smith 2012). There have been several US initiatives to address the issue of veteran care in civilian healthcare systems including ‘Have you ever served in the military?’ and ‘Joining Forces’. The latter is an effort to establish awareness of military culture and standardize care across the US health system (Convoy et al. 2013). ‘Have you ever served in the military?’, the American Academy of Nursing (AAM) initiative, raises nursing and other healthcare worker’s awareness to reinforce the need for the education of nurses who work in civilian settings about military culture and military specific health conditions, to enable them to deliver appropriate care to military veterans (Collins et al., 2013; Convoy et al., 2013).

The Review

Aim of the study
The aim of this integrative literature review was to explore how nursing programmes prepare civilian nurses to care for the military veteran population in civilian hospitals.

Method
An integrative review was the chosen approach to the topic of educating nurses to care for military veterans in civilian hospitals. This approach supports the selection and incorporation of published literature of research that may be empirical, non-empirical or theoretical (Kirkevold, 1997; Whittemore and Knafl, 2005). This contrasts with a systematic review which typically groups and critically appraises empirical research using the same method (Connor, 2014). Similar to both types of reviews, however, is the structured, methodological approach in the conduct of the review (Connor, 2014). In the current study the structured approach is detailed in the following subsections.

Literature Search
A comprehensive search to identify applicable literature for inclusion in the review was undertaken. The search included a variety of databases, hand searching of reference lists and specified journals as outlined in Figure 1. The search terms focused on ‘Veterans or Military Veterans’ and ‘Nursing Education’ or ‘Nurse and Education’ and ‘Care’. In our scoping of the
literature we tried the inclusion of terms around pre-registration and undergraduate nurse education with our search terms but did not find any papers, similarly we had a lack of success in identifying papers when we used the NHS or UK with our search terms and removed this term from our search. Papers were included if they were written in English and published by September 2015. Papers that focused on the education of nurses about veteran-specific health care to be delivered in civilian settings and included primary research or description of practice-based educational initiatives undertaken at an educational institution were included. The nurse education focus was on adult nursing in the general civilian hospital setting. Editorials and literature reviews or discussion papers that did not include reference to a practice-based or educational initiative were excluded.

During our primary literature search we identified a sub-set of literature about the continuing professional education (CPE) of civilian nurses in the care of veterans in civilian hospitals. These papers focused on practice-based strategies for CPE of nurses. Anthony et al. (2012), conducted a search of commonly used psychiatric and medical-surgical textbooks and found an absence of any content in them about veteran health. In recognition of the relevance and importance this literature in building the knowledge-base around the education of nurses about the care of veterans we decided to include what we have termed supplementary papers in our review. These supplementary papers therefore are continuing professional education (CPE) practice-based papers that focused on education of nurses about the care of veterans in civilian hospitals and were identified in the primary literature search.

**Data Abstraction**

Rigour in the literature search, data abstraction and data analysis and integration was ensured by undertaking searches collaboratively and establishing inter-rater agreement for paper exclusions and inclusions. Titles and abstracts from papers were scrutinised by two of the research team and provided an agreed initial database of papers for further review. Full-text papers were assessed for eligibility. The final number of papers included in the review was sixteen. This included ten papers focused on nurse education and six supplementary papers.
The nurse education papers were focused on nursing programmes in the higher education setting. Eight of the papers were about undergraduate nursing programmes. Two papers (Butler et al. 2015; Linn et al., 2015) do not meet the inclusion criteria but are included in our discussion due to their being primary research and as they had important relevant information that can inform curriculum development of undergraduate educational innovations aimed at preparing nurses to work with veterans in civilian hospitals. The supplementary papers were on CPE in the clinical setting.

**Quality Appraisal**

The integrative literature review undertaken identifies, presents and synthesises published, peer-reviewed empirical and practice-based literature to understand how nursing programmes undertake the preparation of civilian nurses to care for the military veteran population in civilian hospitals. The type of studies identified and presented in the summary and discussion section indicate that the exactness of a systematic review could not be applied to the literature and a different approach to appraisal was warranted (Whittemore and Knafl 2005). Kirkevold (1997) indicate adopting elements from historical research including ‘authenticity, quality, information value and representativeness of available information’ (p. 982). Taking this approach where our included studies had diverse methodological approaches we focused on the relevance and appropriateness of the included studies with the focus on the building of a body of knowledge on the topic area (Kirkevold, 1997). Consistent with this, studies were included based on our aim and application of inclusion/exclusion criteria. To assist in the building of a body of knowledge the team decided that six supplementary papers identified in the primary search, were specific to the topic, described practice-based information for CPE, and while outside the inclusion criteria of undergraduate education be included in the review.

All studies were published in peer-reviewed journals. No studies were excluded from the review based on their study design or methods employed. Information about the studies is given in Table 1. Despite potential limitations, the included studies were regarded as relevant to the topic of interest, convey valuable information and contribute to understanding of how
education of nurses and nursing students can be educated about the care of military veterans in civilian hospitals.

**Figure 1.**
The specifically nurse education papers were initially grouped according to topics but as a number of them crossed topic areas we categorised them as either ‘simulation’ or ‘curriculum development and educational innovation’ (Table 1). The supplementary papers were categorised as continuing professional education and included three literature reviews about veteran care in civilian hospitals and three papers linked to continuing educational training needs for nurses working in specialist areas (Table 2).

Table 1 Extracted data from reviewed papers on aspects of nurse education and veteran health (n=12)

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Type</th>
<th>Focus Area</th>
<th>Key Discussion points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthony et al.</td>
<td>2012</td>
<td>PB</td>
<td>Simulation</td>
<td>Highlighting that healthcare needs of veterans are met in general nursing, as well as in VA centres. The benefits of a simulation model to prepare student nurses to recognise the unique needs of veterans.</td>
</tr>
<tr>
<td>Harmer &amp; Huffman</td>
<td>2012</td>
<td>PB</td>
<td>Simulation</td>
<td>Focus on women’s veteran care, particularly those presenting with PTSD.</td>
</tr>
<tr>
<td>Beckford &amp; Ellis</td>
<td>2013</td>
<td>ES</td>
<td>Simulation (pre-post survey)</td>
<td>Benefits of simulation programme to raise undergraduate nursing students awareness of veterans’ unique needs.</td>
</tr>
<tr>
<td>Nye, Keller &amp; Wren</td>
<td>2013</td>
<td>PB; Eval</td>
<td>Simulation</td>
<td>Simulation model to support veterans with PTSD.</td>
</tr>
<tr>
<td>Butler et al.*</td>
<td>2015</td>
<td>ES</td>
<td>Curriculum dev.; Clinical (focus groups with veterans and family)</td>
<td>Veterans and family participated in focus groups to describe experience of healthcare and inform curriculum development 1) Military culture 2) Veteran specific health problems 3) Strategies to support veterans 4) Specific needs of military families</td>
</tr>
<tr>
<td>Harper et al.</td>
<td>2015</td>
<td>PB</td>
<td>Curriculum dev.; EI; VANA</td>
<td>Partnership details and outcomes and educational initiatives developed by a VANA.</td>
</tr>
<tr>
<td>Jones &amp; Breen</td>
<td>2015</td>
<td>PB</td>
<td>Online delivery; RN to BSN</td>
<td>An exploration of an online course for registered nurses to Bachelor of Science in Nursing programme.</td>
</tr>
<tr>
<td>Keavney</td>
<td>2015</td>
<td>PB; Eval</td>
<td>Online delivery; RN to BSN</td>
<td>Curriculum based discussion on the formal and informal learning on veteran-specific content in their teaching programme.</td>
</tr>
<tr>
<td>Linn et al.*</td>
<td>2015</td>
<td>ES</td>
<td>Clinical (focus groups with students)</td>
<td>Experience from clinical placement used to inform curriculum development. 3 themes: 1) Challenges encountered 2) Response to challenges 3) Recommendations for future</td>
</tr>
<tr>
<td>Morrison-Beedy,</td>
<td>2015</td>
<td>PB</td>
<td>Curricula; EI</td>
<td>Partnership programme and strategies used to inform nursing initiatives when working with veterans.</td>
</tr>
<tr>
<td>Passmore &amp;</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
EB= empirical study; PB practice based; Eval evaluation; EI educational innovation; Dev: development; VANA Veteran Affairs Nursing Academy; PTSD – Post Traumatic Stress Disorder;

*These two papers were included due to their being primary research that is relevant to specific nursing innovations with veterans. However, they do not meet the inclusion criteria due to the cohort being Masters level students.

Table 2 Description of supplementary papers on aspects of continuing professional education (CPE) for the care of veterans in civilian hospitals n=6

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Focus Area</th>
<th>Key Discussion points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algire and Martyn</td>
<td>2013</td>
<td>Emergency Room (ER)</td>
<td>Discussion of veteran-specific health needs from ER perspective. Health assessment questions and resources outlined.</td>
</tr>
<tr>
<td>Allen et al.</td>
<td>2013</td>
<td>General</td>
<td>Outline of veteran-specific health concerns. Nursing assessment questions to ask to establish military experience and potential related health concerns</td>
</tr>
<tr>
<td>Convoy, Westphal, Bethesda Johnson et al.</td>
<td>2013</td>
<td>Emergency Room</td>
<td>Hypothetical example outlined. Questions for triage nurse to ask to establish military veteran experience discussed</td>
</tr>
<tr>
<td>Johnson et al.</td>
<td>2013</td>
<td>General</td>
<td>Outline of veteran-specific health history assessment questions; resource links and potential veteran health problems</td>
</tr>
<tr>
<td>Conard, Allen &amp; Armstrong</td>
<td>2015</td>
<td>General</td>
<td>Summarises common veteran health issues; provides links to educational resources and gives recommendations for CPE</td>
</tr>
<tr>
<td>Counts, Frendl &amp; Johnson</td>
<td>2015</td>
<td>Medical-surgical</td>
<td>Discusses common veteran-specific health issues and strategies for caring for veteran patients.</td>
</tr>
</tbody>
</table>

**Summary and Discussion**

Three empirical studies (ES) only were identified in the search (Beckford and Ellis 2013; Butler et al., 2015; Linn et al., 2015). Butler et al. (2015) and Linn et al. (2015) describe findings from qualitative focus groups. However, neither of these two papers met our search criteria of undergraduate or pre-registration nursing students. They have been included in this review as conducted primary research that was relevant to our topic area. Beckford and Ellis (2013)
briefly outline the conduct of a study around a simulation intervention to identify the attributes of patients’ interpretation of care and professionalism pre-study, along with an exploration of patient outcomes post-simulation. However, there are no details about the sample (numbers, demographics) and quantitative results are reported in general terms with no statistical results given.

Albeit representing a small number of educational institutions in the US, the impact of the ‘Joining forces’ initiative is evident, with a number of papers indicating their innovation was linked to this initiative (Harmer and Huffman, 2012; Beckford and Ellis 2013; Jones and Breen, 2015; Morrison-Beedy, Passmore and D’Aoust, 2015). The educational innovations for students through a VA health academy are the basis of other papers (Anthony et al., 2012; Nye, Keller & Wren, 2013; Harper et al. 2015). Some studies report anecdotal evaluation (Eval) including student comments about an education initiative to use simulation to improve the care of veterans who have been diagnosed with Post Traumatic Stress Disorder (PTSD) (Nye, Keller & Wren 2013; Keavney 2015). All papers identified were focused on the US and were written between 2011 and 2015.

Simulation

The use of simulation to educate students about veteran-specific health care needs appears to be an important teaching practice and was described in four studies. Simulation was viewed as a way to incorporate the teaching of veteran care into the undergraduate curriculum (Anthony et al., 2012; Harmer and Huffman 2012). Beckford and Ellis (2013) acknowledge the need to increase student awareness of veteran’s unique needs and to prepare undergraduate students in the provision of quality care. They developed a simulation based around the mental health needs for patients across a variety of specialty areas and taking a holistic approach in training their student nurses to engage in practical application of their skills and subsequently reflect on patient care needs. To challenge stereotyping of veterans as males, the use of simulation described a female veteran with healthcare needs. Similarly, Harmer and
Huffman (2012) describe how to incorporate the care of a female veteran with PTSD in a simulation scenario.

PTSD was also the focus of the simulation study described by Nye, Keller and Wrenn (2015). Actors were used in the simulation and the authors report that students ‘gave positive feedback on the impact of this method of learning [simulation] more about veterans in general and PSTD in particular’ (Nye, Keller and Wrenn, 2015, p50). In Nye et al.’s study, actors in the form of trained standardized patients were used to reconstruct veteran patients. The students who took part in the simulation reported positive feedback and a greater insight into the needs of the veteran population.

Anthony et al. (2012) describe a simulation scenario designed both to teach students about the care of the veteran and additionally to assist in the preparation of students for a clinical placement in a veteran healthcare facility. It was proposed that simulation could be a means of providing education in a clinical setting.

The paper by Harper et al (2015) mentions simulation as part of a course related to a Veterans Affairs (VA) Nursing Academy although no specific details are provided. VA Nursing Academies, which include partnerships between VA healthcare facilities and educational institutions, were established to address predicted nursing shortages in the VA health system (Harper et al., 2015). Harper et al. (2015) suggest they have evolved to include educational and practice innovation for evidence-based quality care for veterans and their families.

Curricula development and educational innovation

Four papers describe curricula development and educational innovations designed to incorporate information about military veteran health issues into nursing programmes. Keavney (2015) describe an eight week online course developed for students in a RN to BSN conversion programme. Not all registered nurses will have a bachelor degree. The RN to BSN programme (US) is a course designed for registered nurses to undertake additional undergraduate education to gain a bachelor's qualification. The course was also made available for students in other health-related programmes. Jones and Breen (2015) also
incorporated issues about caring for veterans in their RN to BSN programme, including the use of online activities, assigned readings and group discussions.

Using a multi-faceted approach, Morrison-Beady, Passmore and D’Oust (2015) outline their ‘Joining Forces program’. Included in the program was curricula content and experiences about veteran specific-issues. Additionally an online ‘Introduction to military and veteran healthcare’ was developed for students in the RN to BS program course, however, all students were encouraged to undertake the course. The authors (Morrison-Beady et al. 2015) described how faculty staff have shared knowledge and lessons learned through webinars and presentations.

To inform the development of a training program on veteran and family care for nursing and social work students, Linn et al. (2015) captured the views of master’s level nursing and social work students who had undertaken clinical placement in a veteran-specific health facility. The information obtained from qualitative focus groups with the students was used in curriculum development for training programs on veteran and family care for nursing and social work students. Associated with that study was the conduct of focus groups with veterans and family members whose experiences were also used to inform the training programme (Butler et al. 2015). Common to both studies was the identified need for health professionals to have an understanding of military culture and veteran specific issues.

Harper et al. (2015) outline various educational developments linked to a VA Nursing Academy. The authors provide a model to demonstrate inputs, activities, outputs and outcomes for sustainability at the VANA. Outcomes including educational innovations are described and include an elective course (‘Caring for America's heroes: the VHA System’) (Veterans Health Administration) undertaken by undergraduate nursing students (Harper et al., 2015: p. 61). The authors describe how the partnership acquainted all undergraduate nursing students to veteran issues through the veteran-centred nursing curricula and enabled them to develop clinical competencies in the area of veteran-specific healthcare. These
include increased student understanding of veterans’ health needs, improved patient satisfaction and a rise in students enrolled in further teaching programmes.

**Continuing Professional Education (CPE)**

Nurses working in civilian hospitals who have not received any formal education about veteran-specific healthcare may require continuing professional education to upskill them to provide evidence-based nursing care. Harper *et al.* (2015) outline the necessity for nurses to have an understanding of military cultural competence and the differences between caring for civilian patients and those who may have suffered physical or mental trauma or sustained injury on active combat service. The papers in Table 2 provide contemporary discussion in line with the ‘Have you ever served in the military?’ initiative and outlines general and specific knowledge required by nurses working in civilian hospitals.

**Implications for UK**

The NHS and VHA have been described as having similarities due to their provision of integrated models of care across a variety of healthcare settings (Royal College of Nursing, 2014). While both provide care to military veterans, it is unlikely that nurses working in the NHS will have any education or training on military-specific issues. As veterans constitute a significant proportion of the older male adult population and younger veterans may present with complex psychical and psychological healthcare needs, it is imperative that undergraduate nursing programmes include some educational content about veteran-specific health issues to prepare them for working with this group of patients in the NHS. Additionally, CPE needs to be developed and implemented for the upskilling of nurses already working in NHS settings.

In the UK, personnel enlist into the Royal Navy, British Army or Royal Air forces and then complete pre-registration adult or mental health training and post registration specialist training at civilian universities (Bell, 2013; Carter and Finnegan, 2014) This is part of an effective educational strategy to ensure British military nurses are adequately prepared for
their operational role, although civilian based clinical placements have limitations (Finnegan et al., 2015).

Learning from the papers reviewed, simulation and online courses may potentially be the most effective ways of educating students and nurses. The UK Royal College of Psychiatrists provides a useful resource page on the mental health of veterans (RCPsych, 2016) and the UK Royal College of General Practitioners have developed guides for GPs and online e-learning initiatives (RCGP, 2016) but we are not aware of any planned educational programmes or initiatives to introduce nurses working in the NHS or other civilian settings in the UK to veteran health-specific issues.

**Limitations**

The adherence to, and documentation of the method undertaken for this paper adds strength to the conduct of this literature review. However, there are always limitations to the breadth of the search, including search terms used and databases consulted. Additionally, different application of inclusion and exclusion criteria may have yielded different results.

**Conclusion**

Beckford and Ellis (2013: 400) highlight that ‘the bulk of nursing education literature seems to evidence a void’ with regard to caring for an increasing veteran population in the US civilian and Veteran Affairs (VA) healthcare systems. Our initial aim for this review was to report on how nurses are prepared educationally to work with veterans in the National Health Service (NHS) in the UK. We did identify such literature, but it could best be described as scant. Ironically, our findings have been sourced predominantly within the US context and found few evidence-based papers focusing on education of nurses to care for veterans in the civilian settings. More empirical studies need to be undertaken to develop, test and evaluate educational innovations for incorporating military-specific care in the education of nurses.
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