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Title: Factors contributing to student nurses'/midwives' perceived competency in spiritual care

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Abstract: Background: The spiritual part of life is important to health, wellbeing and quality of life. Spiritual care is expected of nurses/midwives, but it is not clear how students can achieve competency in spiritual care at point of registration as required by regulatory bodies. Aim: to explore factors contributing to undergraduate nurses'/midwives' perceived competency in giving spiritual care. Design: a pilot cross-sectional, multinational, correlational survey design. Method: Questionnaires were completed by 86% (n=531) of a convenience sample of 618 undergraduate nurses/midwives from 6 universities in 4 countries in 2010. Bivariate and multivariate analyses were performed. Results: Differences between groups were small. Two factors were significantly related to perceived spiritual care competency: perception of spirituality/spiritual care; student's personal spirituality. Students reporting higher perceived competency viewed spirituality/spiritual care broadly, not just in religious terms. This association between perceived competency and perception of spirituality is a new finding not previously reported. Further results reinforce findings in the literature that own spirituality was a strong predictor of perceived ability to provide spiritual care, as students reporting higher perceived competency engaged in spiritual activities, were from secular universities and had previous healthcare experience. They were also religious, practised their faith/belief and scored highly on spiritual wellbeing and spiritual attitude/involvement. Conclusions: The challenge for nurse/midwifery educators is how they might enhance spiritual care competency in students who are not religious and how they might encourage students who hold a narrow view of spirituality/spiritual care to broaden their perspective to include the full range of spiritual concerns that patients/clients may encounter. Statistical models created predicted factors contributing to spiritual care competency to some extent but the picture is complex

requiring further investigation involving a bigger and more diverse longitudinal sample.

\*Response to Reviewers

Response to reviewers

Reviewer comment	Author response to comment	Changes made	Page
Reviewer 1			
<p>1. Meet the aims and scope of Nurse Education Today? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Comments: Is this another paper on a "same" study???</p> <p>If so, this needs to be made clearer. What did the Ross et al's (2014) paper do and why is it different to this one? Personally I'm having trouble seeing the difference and the titles are the same.</p> <p>See reference list already published /reported in NET. So while an interesting topic - has this paper already been published (or is this something very similar) from the pre-existing data? What would be the rationale then for this paper?</p>	<p><i>In order to clarify the distinction between the current paper and Ross et al (2014), which both report on different aspects of the same data, the following changes have been made.</i></p>	<p><i>-The following sentence has been added to the end of the 'background':</i> <i>' In a previous paper we described how a sample of students from four countries perceived spirituality/spiritual care and their competency in giving spiritual care (Ross et al, 2014). In the current paper we further interrogate the same data to identify factors contributing to spiritual care competency.'</i></p> <p><i>-The second paragraph of the background which started 'In a previous paper we reported..', has been removed.</i></p> <p><i>-Reference to Ross et al 2014 has been removed in some sections of the background and replaced with the primary references e.g. spiritual care competency definition (Attard 2015, van Leeuwen et al 2009), when talking about limitations of the studies cited.</i></p> <p><i>-additional information has been added to this paper instead of referring the reader back to Ross et al (2014) e.g. table describing the sample, validity and reliability of the measures.</i></p>	<p>P2</p> <p>Previous p1</p> <p>P1</p> <p>P3, 4, Table 1</p>
<p>3. Possess a suitable title and an abstract that accurately and concisely</p>	<p><i>Title has been amended to reduce confusion with our previous paper.</i></p>	<p><i>The section 'findings from a European pilot study' has been removed. The title now simply says what the focus of the paper is 'Factors contributing to student</i></p>	<p>P1, title page</p>

<p>summarises the content?  Yes_X__ No__  Comments:  While "Yes" is does present an interesting concept however I have two concerns:  * Has this study/paper already been written?  * Sadly spirituality is not a competency given much attention to (in reality). The title and abstract provided enough details for this pilot study however the intention of the paper needs to be made clearer - what is it you are doing?  Which study are you reporting on? Is it a new one or are you report something different from the same data, the same pilot study?  Seems to me you are reporting on Ross et al (2014) which already has been published.</p>		<p><i>nurses/midwives perceived competency in spiritual care'</i>.  See also measures taken to clarify distinction between this paper and Ross et al (2014) outlined in 1 above.</p>	<p>P1, 2, 3, 4</p>
<p>4. Cite, discuss and critically evaluate relevant international literature?  Yes_X__ No__  Comments:  Yes varied material is used to explore this area but a little concerned about the</p>	<p><i>To adequately explore the concept of spirituality would require an entire paper so additional references to papers which do this have been included.</i></p>	<p><i>e.g. Weathers &amp; Coffey 2015, Pike 2011. Reference to the work undertaken by the RCN (2011), specifically for nursing, which is based upon an extensive review of the literature, is also included. The WHO (2002) definition remains because of its international scope, extensive development and health focus.</i></p>	<p>P1</p>

<p>one and only definition used (and the concept of spirituality is not explored).</p>			
<p>The definition used for the defining spiritual care competency come from NHS Education for Scotland 2009, which I feel, is dated, narrow and how can this be only definition be used for the purposes of this study?</p>	<p><i>The definition cited comes from van Leeuwen et al (2009) and Attard (2015), two of only a few nurses to tackle spiritual care competency in nurse education, the latter being very up to date and based upon the NMC definition of competency and underpinned by the classical theories of Benner (Novice to Expert, 1984) and Bloom (Taxonomy of educational objectives, 1956).</i></p>	<p><i>A section on available competency frameworks for cancer (Marie Curie) and chaplaincy (NES) have been added pointing out the need for further development of a framework for nursing and referring to the most up-to-date work of van Leeuwen and Attard.</i></p> <p><i>Additional recent references have been added throughout the text:</i>  <i>RCN 2011a. RCN Spirituality Survey 2010. RCN, London</i>  <i>RCN. 2011b. Spirituality in nursing care: a pocket guide. RCN, London.</i>  <i>Lewinson, L.P., McSherry, W., Kevern., 2015. Spirituality in pre-registration nurse education and practice: a review of the literature. Nurse Education Today, 35, 6.:806-14.</i>  <i>Pike, J., 2011. Spirituality in nursing: a systematic review of the literature from 2006-10. British Journal of Nursing 20 (12), 743-749</i>  <i>Cockell, N., and McSherry, W., 2012. Spiritual care in nursing: an overview of published international literature. Journal of Nursing Management 20, 958-969</i></p>	<p>P1</p> <p>P1, reference list</p>
<p>I can see why it has been used because it actually utilises the word "compassion" which I think has been misused to show spirituality as a way of meeting the 6Cs and in light</p>	<p><i>References to the Francis Report and Health Education England (HEE) and the related discussion have been removed</i></p>		

<p>of the recent reports cited in this paper. This is the feeling I get from reading the paper of which there is little rationale. I would like to see more of a concept analysis of spirituality to show its dimensional nature of interpretation. No other literature of a religious nature is really discussed..</p>			
<p>5. I have problems with sole definition of spirituality and its direction/purpose. I can see why it is being used as a "fix" for compassion to be included in nurse/midwifery pre-registration training.</p>	<p><i>See 4 above regarding definition of spirituality and removal of reference to Francis and HEE.</i></p>		
<p>6. Does the article have a sound theoretical or policy base? Yes___ No_x__ Comments: P3 - Spiritual care teaching - The Francis Report suggests new recruits foster compassion - How does this specifically link to spirituality? A very fixed Scottish definition of compassion is quoted- how</p>	<p><i>Reference to Francis and related discussion around compassion has been removed.</i></p>	<p><i>A clearer and stronger argument based upon policy (WHO, ICN, NICE, NMC, theory (Benner, Bloom) and research (conducted by organisations such as RCN, research teams, literature reviews) is provided in the revised background section (see response in 4).</i></p>	<p>P1, 2</p>

<p>does this compare with the rest of Europe? No other ideas of this nature are explored or discussed. Should other literature be explored - the sociology of religion/health/what it means to society/pre-reg info to how these ideals may be formed and socialised or not before embarking on a health-training course that requires a compassionate workforce.</p>			
<p>7. Are conclusions drawn rigorously? Yes___ No__x_  Comments:  I see different flaws in this paper - timescale is not mentioned in terms of the other study (or are we talking about the same study) from 2010?  Conclusions are being drawn from one working definition of spirituality.  Measures used I assume are validated and used widely.</p>		<p><i>Clarification has been provided re timescale (see response to 1. above).</i></p> <p><i>A broader discussion of the definition of 'spirituality' has been included (see 4 above).</i></p> <p><i>Further details relating to the validity and reliability of the measures are included (see sections in red in 'data collection' section).</i></p>	<p>P2</p> <p>P1</p> <p>P3, 4</p>
<p>9. Outline and justify the overall research design?  Yes_x__ No___  Comments:  A correlational survey</p>	<p><i>We have attempted to address these concerns in the previous sections.</i></p>		

<p>design - it seems ok (apart from all my previous concerns)</p>			
<p>11. Clearly indicate and discuss data analysis/findings? Yes___ No_x__ Comments: Here I understand that a questionnaire was given out with 5 questionnaires within it to capture the 5 issues/themes. The statistics here is not my area of expertise but just an observation. Were the tools (of measure) modified in any way? Are they recognised/validated tools?</p>		<p><i>Further explanation of the data collection method and validity/reliability of the measures is provided in the 'data collection' section.</i></p>	<p>P3, 4</p>
<p>86% response rate is really good. I would like to see a break down of this including biographical data (a descriptive account of the student population in a table - to understand who I am looking at before launching in the inferential statistics). I think there is something important to say but you need to keep the reader with you because each part of the attributes that are measured will loose the</p>		<p><i>A new table has been added giving this information (Table 1, just before data collection section).</i></p>	<p>Table 1 to be inserted on p3</p>



<p>reader (particularly if not familiar with the stats).</p>			
<p>12. Accurately display statistical data (if any)? Yes___ No_x__ Comments: Again statistics and these measures are not my area. Because of the stage of the research a flow chart or similar diagram may have helped my understanding here but some tables would be good - table 1 does not tell me anything whereas the figure does.</p>		<p><i>The following explanatory sentence has been added to facilitate understanding of Table 2: 'For example, there is a statistically significant difference between people with religious or non-religious life views in terms of SCCS score (p=0.017*). However there is no difference between people who have experienced a life event in terms of SCCS score (p=0.402).</i></p> <p><i>Additional signage has been added throughout the results section to highlight which measure is being talked about e.g. <u>Factors contributing to spiritual care competence (SCCS)</u></i></p>	<p>Table 2 to be inserted on p4</p> <p>P4-6</p>
<p>I feel the overall concept is good - there is very little evidence on spirituality in healthcare. The study makes the confirmation that those that perceived themselves to be competent in spiritual care held broad views on spirituality. OK - and what does this mean and where to you hope to go with this?</p>		<p><i>A new sentence has been added to the conclusion:  'This is an important finding because it suggests that students who have this broad perspective will be more aware of the full range of spiritual concerns that the patients/clients they care for may present with.'</i></p>	<p>P8</p>
<p>Christianity is dominant in this sample. Predominate catholic countries are not included i.e. France, Spain, Ireland, is there a reason</p>	<p><i>This is a pilot study and Malta, which is a predominantly catholic country, was included. The main study includes 21</i></p>		

for this? This is not explored only acknowledged as a possible limitation. Are there other countries with literature on this topic? Ireland for example?	<i>universities across 8 countries so will have greater diversity.</i>		
Reviewer 2			
This is an interesting study. The literature review is adequate, but not complete.		<i>see response in 4 above.</i>	P1
Methods need more detail, including procedure.		<i>see response in 1, 7, 11 above.</i>	P2,3,4
Sample needs more description--perhaps a table would help.		<i>A new table (Table 1) has been added (see 11 above).</i>	Table 1
The tools need to include psychometric support with citations. Subscales need to be conceptually defined to provide further insight into the findings.		<p><i>Psychometric details regarding the tools have been added to the 'data collection' section (see 11 above also).</i></p> <p><i>A description of the subscales is already provided in brackets alongside each measure in the data collection section. E.g. for SSCRS we have said</i></p> <p><i>'In previous studies the SSCRS has produced a 4 factor model including: existential spirituality (view that spirituality is concerned with peoples' sense of meaning, purpose, value, peace and creativity i.e. items f,h,i,j,l); religiosity (view that spirituality is only about religious beliefs/practises i.e. items d,m,p); spiritual care (view of spiritual care in its broadest sense including religious and existential elements e.g. facilitating</i></p>	<p>P3,4</p> <p>P3</p>

		<i>religious rituals and showing kindness i.e. items a,b,g,k,n) and personal care (taking account of peoples' beliefs and values and dignity i.e. items n,o,q) (McSherry et al., 2002).'</i>	
Both table and figure need the statistical data.		<i>p vales have been added to Table 2 and to Figure 1.</i>	Table 2, Figure 1

FACTORS CONTRIBUTING TO STUDENT NURSES' /MIDWIVES' PERCEIVED COMPETENCY  
IN SPIRITUAL CARE

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KEY WORDS

Spirituality, spiritual care, nurse education, spiritual care competence

## ABSTRACT

Background: The spiritual part of life is important to health, wellbeing and quality of life. Spiritual care is expected of nurses/midwives, but it is not clear how students can achieve competency in spiritual care at point of registration as required by regulatory bodies. Aim: to explore factors contributing to undergraduate nurses'/midwives' perceived competency in giving spiritual care. Design: a pilot cross-sectional, multinational, correlational survey design. Method: Questionnaires were completed by 86% (n=531) of a convenience sample of 618 undergraduate nurses/midwives from 6 universities in 4 countries in 2010. Bivariate and multivariate analyses were performed. Results: Differences between groups were small. Two factors were significantly related to perceived spiritual care competency: perception of spirituality/spiritual care; student's personal spirituality. Students reporting higher perceived competency viewed spirituality/spiritual care broadly, not just in religious terms. This association between perceived competency and perception of spirituality is a new finding not previously reported. Further results reinforce findings in the literature that own spirituality was a strong predictor of perceived ability to provide spiritual care, as students reporting higher perceived competency engaged in spiritual activities, were from secular universities and had previous healthcare experience. They were also religious, practised their faith/belief and scored highly on spiritual wellbeing and spiritual attitude/involvement. Conclusions: The challenge for nurse/midwifery educators is how they might enhance spiritual care competency in students who are not religious and how they might encourage students who hold a narrow view of spirituality/spiritual care to broaden their perspective to include the full range of spiritual concerns that patients/clients may encounter. Statistical models created predicted factors contributing to spiritual care competency to some extent but the picture is complex requiring further investigation involving a bigger and more diverse longitudinal sample.

## ACKNOWLEDGEMENTS

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## CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

Word count =4590

## TITLE

Factors contributing to student nurses'/midwives' perceived competency in spiritual care

## BACKGROUND

The spiritual part of life is recognised internationally as having an important part to play in health, wellbeing and quality of life (e.g. World Health Organisation [WHO], 2002; Koenig et al., 2012) and spiritual care features within healthcare policy and guidance **internationally** (e.g. NICE, 2004; [www.palliatief.nl](http://www.palliatief.nl)). **There is much debate surrounding the definition of spirituality (e.g. Pike, 2011). A recent concept analysis identifies 3 common elements; transcendence, connectedness of self/others/nature/higher power and meaning in life (Weathers and Coffey 2015). These elements also feature in the 8 domains of spirituality identified by the WHO in its international measure of spiritual wellbeing (WHO 2002) which includes: connectedness to a spiritual being or force, meaning of life, awe, wholeness and integration, spiritual strength, inner peace/serenity/harmony, hope and optimism, and faith. This definition is health focused and, therefore, of particular relevance to nursing. The Royal College of Nursing (RCN 2011b) adopts a similar definition and cites the NHS Education for Scotland's (2009, p6) definition of spiritual care as:**

'that care which recognizes and responds to the needs of the human spirit when faced with trauma, ill health or sadness and can include the need for meaning, for self worth, to express oneself, for faith support, perhaps for rites or prayer or sacrament, or simply for a sensitive listener. Spiritual care begins with encouraging human contact in compassionate relationship, and moves in whatever direction need requires'.

Spiritual care is expected of nurses (e.g. International Council of Nurses, 2012) who should be competent in its delivery at point of registration (e.g. NMC, 2010). Spiritual care competency has been defined as the knowledge, skills and attitudes needed for delivery of spiritual care (Attard, 2015; van Leeuwen et al, 2009). **Whilst spiritual care competency frameworks exist for palliative care (Marie Curie Cancer Care, 2003) and chaplaincy (NHS Education for Scotland, 2008), work has only recently begun on developing frameworks for nursing (e.g. Attard, 2015; van Leeuwen et al, 2009). Whilst the expectation is that nurses will be competent in spiritual care at point of registration, little is known about the factors that contribute to the acquisition of spiritual caring skills and spiritual care competency by student nurses/midwives.** The literature highlights that spiritual care teaching and personal attributes of the nurse/midwife may be two factors.

### Spiritual care teaching

**Nurses overwhelmingly and consistently report the need for further education on spiritual care (Lewinson et al, 2015; RCN, 2011a).** There is some evidence that educating nurses in spirituality and spiritual care results in: greater understanding of the complex nature of spirituality and spiritual care; improved interpersonal/communication skills; a more person centred approach to care; personal benefits, such as greater job satisfaction (e.g. van Leeuwen et al., 2008; **Cockell and McSherry 2012; Cone and Giske 2012; Giske and Cone 2012; Cooper et al., 2013).** Clinical experience may provide additional opportunities for gaining competence in spiritual care (Giske, 2012). However differences in study design, sampling and rigour in many of these studies prevented firm conclusions from being drawn.

### Personal attributes of the nurse/midwife

There is evidence that the personal spirituality of the nurse/midwife may dictate whether or not and how spiritual care is addressed, with those claiming and practising religious/spiritual beliefs being most at ease with spiritual care (Taylor et al., 2008, van Leeuwen et al., 2008, Giske 2012), but again many of these studies were small in scale with varying methodologies and rigour. There is further evidence from other healthcare professional groups that personal beliefs and values impact upon clinical decisions about patient care. For example non-religious doctors were more likely than religious doctors to prescribe continuous sedation thus speeding up death at end of life (Seale, 2010).

Clearly further work is needed including larger samples from different countries and a sound methodology, to identify the factors contributing to student nurses/midwives attainment of spiritual care competency. **In a previous paper we described how a sample of students from four countries perceived spirituality/spiritual care and their competency in giving spiritual care (Ross et al, 2014). In the current paper we further interrogate the same data to identify factors contributing to spiritual care competency.**

## METHOD

### Aim

To explore factors contributing to undergraduate nurses'/midwives' perceived competence in giving spiritual care.

### Design

Cross-sectional, multinational, correlational survey design.

### Sample

Questionnaires were distributed to a target convenience sample of 618 undergraduate nursing/midwifery students at six universities (3 religious, 3 secular) in four countries (Wales, Malta, Netherlands [3 universities], Norway) in September 2010. A response rate of 86% was achieved (n= 531, range 78% [Wales] – 100 % [Netherlands]). Thus the findings can be considered to be representative of the target sample, but not necessarily of all student nurses undertaking nurse training in the countries included. Ethical approval was obtained from ethics committees within each university and external organisations as required by each country. Participation of universities and students was voluntary and anonymity and confidentiality were assured.

The sample was given verbal and written information about the study 1-2 weeks in advance of the questionnaires being administered by the authors during class time. Those not wishing to participate returned blank forms.

The sample, **described in Table 1 below**, included mainly female (85%) nursing students (95%) in year one of their course, aged up to 20 years (57%) and studying at secular universities (62%). Most were religious (87%, mainly Christian 80%), practised their faith/belief in a range of ways (51-60% daily/weekly), had experienced significant life events (55%) and had no previous health care experience (60%).

## Insert Table 1

### Data collection

Students completed five questionnaires relating to the study aims as follows.

-Purpose designed demographic questionnaire which asked questions about gender, age, educational background, religious affiliation/life view etc.

-JAREL Spiritual well-being Scale (Hungelman et al., 1996). JAREL measures spiritual wellbeing and contains 21 items (all items loaded at 0.5 or above) and 3 subscales: faith/belief; life/self responsibility; life satisfaction/self actualization. Treated as a categorical variable, JAREL measures three levels of spiritual wellbeing: low (0-50); medium (51-84) and high (85-126). JAREL was developed for nursing and includes religious and existential domains of spirituality.

-Spiritual Attitude and Involvement List (SAIL, Meezenbroek et al., 2008). SAIL consists of 26 items arranged in 3 dimensions with 7 subscales: Connectedness to oneself (meaningfulness, trust, acceptance); to the environment/others (caring for others, connectedness with nature); to the transcendent (transcendent experiences, spiritual activities). Factorial, convergent and discriminant validity were demonstrated. Subscales showed adequate internal consistency and test-retest reliability. SAIL can be employed as a continuous measure ranging from 1 to 6 with higher scores indicating higher levels of spiritual attitude/involvement or it can be employed as a binary variable whereby high spiritual attitude/involvement is indicated by a SAIL score >4.

-The Spirituality & Spiritual Care Rating Scale (SSCRS, McSherry et al., 2002) measured students' perceptions of spirituality and spiritual care. A high overall score indicates a broader view of spirituality (i.e. inclusive of both religious and existential elements) and spiritual care (i.e. facilitating religious rites/rituals as well as addressing patients' need for meaning, value, purpose, peace and creativity). The SSCRS has demonstrated Cronbach's alpha scores ranging from 0.64-0.84 in 42 studies in 11 countries. In previous studies the SSCRS has produced a 4 factor model including: existential spirituality (view that spirituality is concerned with peoples' sense of meaning, purpose, value, peace and creativity i.e. items f,h,i,j,l); religiosity (view that spirituality is only about religious beliefs/practises i.e. items d,m,p); spiritual care (view of spiritual care in its broadest sense including religious and existential elements e.g. facilitating religious rituals and showing kindness i.e. items a,b,g,k,n) and personal care (taking account of peoples' beliefs and values and dignity i.e. items n,o,q) (McSherry et al., 2002). The Scale, however, has not yet been used to intentionally explore these factors within samples.

-The Spiritual Care Competency Scale (SCCS, van Leeuwen et al., 2009) measured students' perceptions of their competence in delivering spiritual care. It contains 27 items scored on a 5 point scale from 'completely disagree' to 'completely agree', therefore the highest possible competency score is 135 and the lowest is 27. There are 6 subscales measuring: assessment and implementation of spiritual care; professionalization and improving the quality of spiritual care; personal support and patient counselling; referral to professionals; attitude towards patients' spirituality; communication. The



SCCS has good homogeneity, average inter-item correlations >0.25 and good test-retest reliability. It is valid and reliable (Cronbah's alpha domains range 0.56-0.82). The SCCS can be employed as a continuous measure of competency ranging from 1 to 5 with higher scores indicating higher levels of perceived competency or it can be employed as a binary variable whereby competency is indicated by a mean SCCS score across all questions >3.5.

#### Data analysis

Questionnaires were scored at country level and were posted by secure mail to the central analysing centre in Wales UK where the data were entered into PASW Statistics v18.

Analysis was performed to detect differences/relationships in the measures according to demographic factors. For dependent variables with scale outcomes, t-test/Mann-Whitney tests and One-Way ANOVA/Kruskal Wallace tests were used for categorical independent variables (depending upon distribution of dependent variable). Results showed that no respondents were classified as being of low spiritual wellbeing using JAREL, so this variable was treated as having a binary outcome and chi square tests were applied to investigate any association with categorical independent variables.

In order to establish the extent to which demographic factors contributed to perception of spirituality/spiritual care (SSCRS), competence (SCCS), spiritual attitude/involvement (SAIL), spiritual well-being (JAREL), multiple regression analysis was performed for variables with scale outcomes, while logistic regression analysis was performed for variables with binary outcomes.

### RESULTS

Table 2 summarises the results of the initial bivariate analysis conducted to detect differences/relationships for perception of spirituality/spiritual care (SSCRS), perceived competence (SCCS) and personal spirituality (JAREL, SAIL) according to demographic factors.

Insert Table 2

#### Factors contributing to spiritual care competence (SCCS)

Perceived spiritual care competence was found to be related to two main factors, namely students' perception of spirituality and spiritual care and students' personal spirituality, as presented below.

##### *Perception of spirituality/spiritual care*

Students who perceived themselves to be competent in delivering spiritual care had higher mean SSCRS scores (mean=3.59) meaning they held a broader view of spirituality/spiritual care compared to those who rated as not competent (SSCRS mean=3.49) ( $t=-3.088$ ,  $p=0.002$ ).

Perception of spirituality/spiritual care (SSCRS) was affected by:

- the practise of certain spiritual activities such as meditation ( $t=-2.370$ ,  $p=0.018$ ), never reading religious books ( $t= 2.836$ ,  $p=0.005$ ), art ( $t= -2.268$ ,  $p=0.024$ ) and rest in nature ( $t= -2.645$ ,  $p= 0.009$ ). Those who regularly practiced meditation, art and rest in nature had slightly higher mean SSCRS

scores compared to those who never practised while those who never practised reading a religious book had slightly higher mean SSCRS scores than those who practiced regularly. There was however no significant difference in terms of mean SSCRS scores between those who regularly practiced (daily/weekly) any of the listed activities and those who practised never/monthly ( $t=-1.546$ ,  $p=0.123$ ).

-whether institutions were secular or not (SSCRS,  $t=3.658$ ,  $p<0.001$ ). Students from religious universities had slightly lower mean SSCRS scores (mean= 3.51) compared to respondents from secular universities (mean= 3.6), indicating a slightly narrower view of spirituality/spiritual care.

-previous healthcare experience (SSCRS,  $t=-2.353$ ,  $p=0.019$ ). Students who reported having worked in healthcare had higher mean SSCRS scores (mean=3.6) compared to those who did not have any (mean=3.54,  $t=-2.353$ ,  $p=0.019$ ).

Students' life view was not significant in how they perceived spirituality/spiritual care (SSCRS,  $t=1.268$ ,  $p=0.025$ ).

### *Personal spirituality*

Spiritual care competency (SCCS) was affected by:

-life view. Students who were religious perceived themselves to be more competent in delivering spiritual care than those who were non-religious ( $t=2.384$ ,  $p= 0.017$ ). A higher proportion of students who were religious had high spiritual well-being scores (JAREL,  $\chi^2(1) = 66.681$ ,  $p<0.001$ ) and higher spiritual attitude/involvement scores (SAIL,  $t=4.201$ ,  $p<0.001$ ).

-practise of certain spiritual activities. Although the practice of all seven spiritual activities were individually related to higher SAIL scores and JAREL scores, students who regularly undertook certain spiritual practices such as prayer ( $t=-3.535$ ,  $p<0.001$ ), reading religious books ( $t=-4.326$   $p<0.001$ ), attending religious meetings ( $t=-3.444$ ,  $p=0.001$ ), practising art ( $t=-2.533$ ,  $p= 0.012$ ), rest in nature ( $t=-2.198$ ,  $p= 0.029$ ) and voluntary work ( $t=-1.985$ ,  $p=0.048$ ) had higher competency scores (SCCS) compared with those that did not undertake these practices.

- spiritual wellbeing (JAREL) and spiritual attitude/involvement (SAIL). Students who scored high on spiritual wellbeing (score of 85-126 on JAREL) and spiritual attitude/involvement (score > 4 on SAIL) perceived themselves to be more competent (SCCS score > 3.5) in delivering spiritual care ( $\chi^2(1)=13.019$ ,  $p<0.001$ ;  $\chi^2(1)=16.713$ ,  $p<0.001$ ). Students who had experienced any significant life events (SAIL,  $t(510) = 2.611$ ,  $p=0.009$ ) and who had more healthcare experience (SAIL,  $t=-3.216$ ,  $p<0.001$ ) had higher spiritual attitude/involvement (SAIL) scores.

### Predicting spiritual care competency

Multiple regression analysis was performed to create models to predict a person's score on SCCS (competency), SSCRS (perception of spirituality/spiritual care), SAIL (spiritual attitude/involvement) and JAREL (spiritual wellbeing) on the basis of a number of factors: age; gender; country; course (midwife or nurse); religious/secular school; prior healthcare experience; experience of life events; life view (religious v non-religious); frequency of practice of a number of religious and non-religious activities.

*Competency (SCCS)*. Three factors explained only 5.6% (5.1% adjusted) of the variance within SCCS,  $F(3, 519) = 10.356, p < 0.001$ . Being from the Netherlands rather than Malta and being a midwifery (none were registered nurses) rather than a nursing student were predictive of a higher competency score, whilst never praying rather than praying monthly was predictive of a lower competency score.

*Perception of spirituality/spiritual care (SSCRS)*. Four factors explained only 12.7% (12.1% adjusted) of the variance within SSCRS,  $F(4, 512) = 18.69, p < 0.001$ . Being a midwifery student rather than a nursing student and practising art weekly rather than monthly were predictive of a broad view whereas being from the Netherlands and Wales rather than from Malta was predictive of holding a narrower view of spirituality/spiritual care.

*Spiritual attitude/involvement (SAIL)*. Seven factors explained 31.3% (30.3% adjusted) of the variance with SAIL,  $F(7, 470) = 30.646, p < 0.001$ . Praying or seeking rest in nature daily or practising art weekly led to higher overall SAIL scores compared to participating in those activities on a monthly basis. Being from Norway rather than Malta and being over 41 years of age also led to higher overall scores.

*Spiritual wellbeing*. A logistic regression model was created to predict spiritual wellbeing (JAREL) classifications. The final model achieves 82.7% ability to predict medium or high spiritual wellbeing. Results indicate that praying daily and weekly is more likely to lead to higher spiritual wellbeing (OR 7.659, 95% CI 2.736-21.439; OR 3.186, 95% CI 1.092-9.299) compared to praying monthly and that reading religious books weekly is more likely to lead to higher spiritual wellbeing (OR 16.463, 95% CI 1.1939-139.809) compared to doing so monthly.

## DISCUSSION

The aim of this paper was to identify factors contributing to student nurses'/midwives' perceived competency in giving spiritual care. The two key factors identified in this regard were students' perceptions of spirituality and spiritual care and students' personal spirituality. Figure 1 summarises the main findings in order to aid the discussion.

Insert Figure 1

### *Perception of spirituality and spiritual care*

Students who perceived themselves to be competent in spiritual care held a broad view of spirituality/spiritual care (i.e. a view inclusive of both religious and existential elements such as meaning, purpose, value, peace and creativity).

The question of why holding a broad view of spirituality/spiritual care is significant to greater perceived competency is an important one to explore. Religiosity of students did not impact on perception of spirituality/spiritual care, but the practice of certain spiritual activities such as art, meditation and seeking rest in nature but never reading religious books did. It is not clear why practise of these particular activities is important but engaging in them may be indicative of a person who is reflective and aware of the bigger picture in life and in touch with life's broader spiritual meaning (Briggs and Lovan, 2014). Never reading religious books cannot be explained as it is out of keeping with the other

findings where reading religious books contributed positively to spiritual care competency and spiritual wellbeing.

Previous healthcare experience affected perception of spirituality with students reporting having had more experience holding a broader view. The experience of illness, suffering and death as triggers bringing the spiritual into focus is a recurring theme in the literature and has been a feature of philosophical enquiry down the ages (e.g. Jaspers and Schilpp, 1981). It may be that students who have been exposed to the suffering of others have a raised awareness of and sensitivity to spiritual concerns, both existential and transcendent, that such encounters trigger; concerns about the meaning of life, suffering and ultimately death and what lies beyond.

Whether institutions were secular or not affected perception of spirituality; students from religious universities held a slightly narrower view, possibly reflecting the ethos of those universities.

#### *Personal spirituality*

Students who were religious, who rated more highly on spiritual wellbeing and spiritual attitude/involvement and who practised activities related to their personal spiritual beliefs (prayer, reading religious literature, attending religious meetings, art, seeking rest in nature, doing voluntary work) perceived themselves to be highly competent in spiritual care.

The personal spirituality of students was also indirectly related to perceived competency through healthcare experience (which is related to a broad view of spirituality/spiritual care and thus to competency) with these students scoring higher on spiritual wellbeing and spiritual attitude/involvement (Figure 1). The practise of spiritual activities was also indirectly related to perceived competence: students who practised all spiritual activities had higher spiritual wellbeing and spiritual attitude/involvement scores (Table 2) which in turn is related to higher perceived competency. Those who practised certain spiritual activities (art, rest in nature, meditation, never reading religious books) held a broader view of spirituality/spiritual care and this was related to higher perceived competency (Figure 1).

These findings confirm what has long been postulated in the literature about the impact of the nurse's core beliefs and values on the delivery of patient care (e.g. Ross, 1994; Narayanasamy, 2006; Taylor et al., 2008; van Leeuwen et al., 2008). What is not clear is whether students with a particular religious orientation perceive themselves to be most competent in delivering spiritual care to patients of a similar faith, as suggested by Narayanasamy (2006). It will be interesting to explore the impact of spirituality teaching on raising perceived competency amongst students who are not religious and in broadening students' perceptions of spirituality/spiritual care, a factor related to higher perceived competency. This will shed further light on the debate about whether spiritual caring skills are 'caught' as suggested by Bradshaw (1997) or can be taught as the emerging body of evidence suggests (Attard et al., 2014, van Leeuwen et al., 2008, Cone and Giske 2012., Cooper et al., 2013).

#### *Predicting spiritual care competency*

An attempt to predict factors contributing to perceived spiritual care competency using a model which included the demographic factors listed in Table 2 was inconclusive. Attempts to predict perception of

spirituality/spiritual care and spiritual attitude/involvement (also related to spiritual care competency) using similar models were also inconclusive. JAREL's 82.7% ability to predict medium or high spiritual wellbeing on the basis of praying daily and weekly and reading religious books weekly may suggest that the JAREL scale is more appropriate for use with samples who claim religious affiliation because of the more religiously focused questions in the faith/belief subscale.

However, the practise of spiritual activities contributed to the small percentage of variance in all four regression models suggesting that the practise of students' beliefs/values may be worthy of further exploration in relation to spiritual care competency, possibly using different models. The country students were from also featured in three of the four models (not JAREL) as well as impacting on all study measures (Table 1) but could not be explained by whether universities were secular or religious or by whether the students studying at them were religious or not. Different educational input between countries is unlikely to explain any differences as students had just began their studies. Other factors, possibly related to culture, may be at play and requires further investigation.

### *Limitations*

Our study is limited by its sample size and homogeneity. Many of the effects shown in this study are fairly subtle and care must be taken when interpreting their clinical significance. A larger sample with greater heterogeneity may produce stronger and clearer associations in study measures. The inclusion of four countries did not produce diversity of life view (the majority of the sample was Christian) therefore exploration of the effect of cultural factors on study outcomes was limited. Although we obtained a high response rate (86%) it is possible that the exclusion of non-respondents introduced some bias. We captured students' perceptions at one point in time only. We measured perceived spiritual care competency, not actual competency for which there is currently no available measure.

## CONCLUSION

We identified that the student's personal spirituality, both in terms of their personal beliefs/values and how they practise these is directly related to perceived spiritual care competency. This finding backs up what has long been suspected in the literature and recently by studies which have shown that own spirituality served as the strongest predictor of perceived ability to provide spiritual care (e.g. Meyer, 2003; Mitchell et al., 2006). A new finding not previously identified in the literature is that viewing spirituality/spiritual care broadly (i.e. not just in religious terms) is also directly related to perceived spiritual care competency. **This is an important finding because it suggests that students who have this broad perspective will be more aware of the full range of spiritual concerns that the patients/clients they care for may present with.** The challenge for nurse/midwifery educators is how they might enhance spiritual care competency in students who are not religious and how they might encourage students who hold a narrow view of spirituality/spiritual care to broaden their perspective to **be inclusive of all faith and no faith backgrounds.**

Previous healthcare experience did not feature as prominently in our results as we had predicted, but we only included first year students. It was, however, related to a broader view of spirituality/spiritual care and to higher spiritual attitude/involvement scores, so clinical placements may foster students' spiritual awareness, as suggested by Giske and Cone (2012).

This study has shown that students' beliefs/values and how they practise these impacts on their perceived spiritual care competency. How broadly they view spirituality has a similar impact. Further investigation is needed to identify the complex range of factors contributing to spiritual care competence over the duration of undergraduate nurse/midwifery education programmes in a more culturally diverse sample. This knowledge is important to educators in developing evidence based education programmes to equip nursing/midwifery students to become competent in the delivery of spiritual care at point of registration as per regulatory body requirements. Such a study is in progress involving 21 universities in 8 countries.

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## TITLE

Factors contributing to student nurses'/midwives' perceived competency in spiritual care

## BACKGROUND

The spiritual part of life is recognised internationally as having an important part to play in health, wellbeing and quality of life (e.g. World Health Organisation [WHO], 2002; Koenig et al., 2012) and spiritual care features within healthcare policy and guidance internationally (e.g. NICE, 2004; [www.palliatief.nl](http://www.palliatief.nl)). There is much debate surrounding the definition of spirituality (e.g. Pike, 2011). A recent concept analysis identifies 3 common elements; transcendence, connectedness of self/others/nature/higher power and meaning in life (Weathers and Coffey 2015). These elements also feature in the 8 domains of spirituality identified by the WHO in its international measure of spiritual wellbeing (WHO 2002) which includes: connectedness to a spiritual being or force, meaning of life, awe, wholeness and integration, spiritual strength, inner peace/serenity/harmony, hope and optimism, and faith. This definition is health focused and, therefore, of particular relevance to nursing. The Royal College of Nursing (RCN 2011b) adopts a similar definition and cites the NHS Education for Scotland's (2009, p6) definition of spiritual care as:

'that care which recognizes and responds to the needs of the human spirit when faced with trauma, ill health or sadness and can include the need for meaning, for self worth, to express oneself, for faith support, perhaps for rites or prayer or sacrament, or simply for a sensitive listener. Spiritual care begins with encouraging human contact in compassionate relationship, and moves in whatever direction need requires'.

Spiritual care is expected of nurses (e.g. International Council of Nurses, 2012) who should be competent in its delivery at point of registration (e.g. NMC, 2010). Spiritual care competency has been defined as the knowledge, skills and attitudes needed for delivery of spiritual care (Attard, 2015; van Leeuwen et al, 2009). Whilst spiritual care competency frameworks exist for palliative care (Marie Curie Cancer Care, 2003) and chaplaincy (NHS Education for Scotland, 2008), work has only recently begun on developing frameworks for nursing (e.g. Attard, 2015; van Leeuwen et al, 2009). Whilst the expectation is that nurses will be competent in spiritual care at point of registration, little is known about the factors that contribute to the acquisition of spiritual caring skills and spiritual care competency by student nurses/midwives. The literature highlights that spiritual care teaching and personal attributes of the nurse/midwife may be two factors.

### Spiritual care teaching

Nurses overwhelmingly and consistently report the need for further education on spiritual care (Lewinson et al, 2015; RCN, 2011a). There is some evidence that educating nurses in spirituality and spiritual care results in: greater understanding of the complex nature of spirituality and spiritual care; improved interpersonal/communication skills; a more person centred approach to care; personal benefits, such as greater job satisfaction (e.g. van Leeuwen et al., 2008; Cockell and McSherry 2012; Cone and Giske 2012; Giske and Cone 2012; Cooper et al., 2013). Clinical experience may provide additional opportunities for gaining competence in spiritual care (Giske, 2012). However differences in study design, sampling and rigour in many of these studies prevented firm conclusions from being drawn.

### Personal attributes of the nurse/midwife

There is evidence that the personal spirituality of the nurse/midwife may dictate whether or not and how spiritual care is addressed, with those claiming and practising religious/spiritual beliefs being most at ease with spiritual care (Taylor et al., 2008, van Leeuwen et al., 2008, Giske 2012), but again many of these studies were small in scale with varying methodologies and rigour. There is further evidence from other healthcare professional groups that personal beliefs and values impact upon clinical decisions about patient care. For example non-religious doctors were more likely than religious doctors to prescribe continuous sedation thus speeding up death at end of life (Seale, 2010).

Clearly further work is needed including larger samples from different countries and a sound methodology, to identify the factors contributing to student nurses/midwives attainment of spiritual care competency. In a previous paper we described how a sample of students from four countries perceived spirituality/spiritual care and their competency in giving spiritual care (Ross et al, 2014). In the current paper we further interrogate the same data to identify factors contributing to spiritual care competency.

## METHOD

### Aim

To explore factors contributing to undergraduate nurses'/midwives' perceived competence in giving spiritual care.

### Design

Cross-sectional, multinational, correlational survey design.

### Sample

Questionnaires were distributed to a target convenience sample of 618 undergraduate nursing/midwifery students at six universities (3 religious, 3 secular) in four countries (Wales, Malta, Netherlands [3 universities], Norway) in September 2010. A response rate of 86% was achieved (n= 531, range 78% [Wales] – 100 % [Netherlands]). Thus the findings can be considered to be representative of the target sample, but not necessarily of all student nurses undertaking nurse training in the countries included. Ethical approval was obtained from ethics committees within each university and external organisations as required by each country. Participation of universities and students was voluntary and anonymity and confidentiality were assured.

The sample was given verbal and written information about the study 1-2 weeks in advance of the questionnaires being administered by the authors during class time. Those not wishing to participate returned blank forms.

The sample, described in Table 1 below, included mainly female (85%) nursing students (95%) in year one of their course, aged up to 20 years (57%) and studying at secular universities (62%). Most were religious (87%, mainly Christian 80%), practised their faith/belief in a range of ways (51-60% daily/weekly), had experienced significant life events (55%) and had no previous health care experience (60%).

Insert Table 1

### Data collection

Students completed five questionnaires relating to the study aims as follows.

-Purpose designed demographic questionnaire which asked questions about gender, age, educational background, religious affiliation/life view etc.

-JAREL Spiritual well-being Scale (Hungelman et al., 1996). JAREL measures spiritual wellbeing and contains 21 items (all items loaded at 0.5 or above) and 3 subscales: faith/belief; life/self responsibility; life satisfaction/self actualization. Treated as a categorical variable, JAREL measures three levels of spiritual wellbeing: low (0-50); medium (51-84) and high (85-126). JAREL was developed for nursing and includes religious and existential domains of spirituality.

-Spiritual Attitude and Involvement List (SAIL, Meezenbroek et al., 2008). SAIL consists of 26 items arranged in 3 dimensions with 7 subscales: Connectedness to oneself (meaningfulness, trust, acceptance); to the environment/others (caring for others, connectedness with nature); to the transcendent (transcendent experiences, spiritual activities). Factorial, convergent and discriminant validity were demonstrated. Subscales showed adequate internal consistency and test-retest reliability. SAIL can be employed as a continuous measure ranging from 1 to 6 with higher scores indicating higher levels of spiritual attitude/involvement or it can be employed as a binary variable whereby high spiritual attitude/involvement is indicated by a SAIL score >4.

-The Spirituality & Spiritual Care Rating Scale (SSCRS, McSherry et al., 2002) measured students' perceptions of spirituality and spiritual care. A high overall score indicates a broader view of spirituality (i.e. inclusive of both religious and existential elements) and spiritual care (i.e. facilitating religious rites/rituals as well as addressing patients' need for meaning, value, purpose, peace and creativity). The SSCRS has demonstrated Cronbach's alpha scores ranging from 0.64-0.84 in 42 studies in 11 countries. In previous studies the SSCRS has produced a 4 factor model including: existential spirituality (view that spirituality is concerned with peoples' sense of meaning, purpose, value, peace and creativity i.e. items f,h,i,j,l); religiosity (view that spirituality is only about religious beliefs/practises i.e. items d,m,p); spiritual care (view of spiritual care in its broadest sense including religious and existential elements e.g. facilitating religious rituals and showing kindness i.e. items a,b,g,k,n) and personal care (taking account of peoples' beliefs and values and dignity i.e. items n,o,q) (McSherry et al., 2002). The Scale, however, has not yet been used to intentionally explore these factors within samples.

-The Spiritual Care Competency Scale (SCCS, van Leeuwen et al., 2009) measured students' perceptions of their competence in delivering spiritual care. It contains 27 items scored on a 5 point scale from 'completely disagree' to 'completely agree', therefore the highest possible competency score is 135 and the lowest is 27. There are 6 subscales measuring: assessment and implementation of spiritual care; professionalization and improving the quality of spiritual care; personal support and patient counselling; referral to professionals; attitude towards patients' spirituality; communication. The

SCCS has good homogeneity, average inter-item correlations  $>0.25$  and good test-retest reliability. It is valid and reliable (Cronbach's alpha domains range 0.56-0.82). The SCCS can be employed as a continuous measure of competency ranging from 1 to 5 with higher scores indicating higher levels of perceived competency or it can be employed as a binary variable whereby competency is indicated by a mean SCCS score across all questions  $>3.5$ .

#### Data analysis

Questionnaires were scored at country level and were posted by secure mail to the central analysing centre in Wales UK where the data were entered into PASW Statistics v18.

Analysis was performed to detect differences/relationships in the measures according to demographic factors. For dependent variables with scale outcomes, t-test/Mann-Whitney tests and One-Way ANOVA/Kruskal Wallace tests were used for categorical independent variables (depending upon distribution of dependent variable). Results showed that no respondents were classified as being of low spiritual wellbeing using JAREL, so this variable was treated as having a binary outcome and chi square tests were applied to investigate any association with categorical independent variables.

In order to establish the extent to which demographic factors contributed to perception of spirituality/spiritual care (SSCRS), competence (SCCS), spiritual attitude/involvement (SAIL), spiritual well-being (JAREL), multiple regression analysis was performed for variables with scale outcomes, while logistic regression analysis was performed for variables with binary outcomes.

### RESULTS

Table 2 summarises the results of the initial bivariate analysis conducted to detect differences/relationships for perception of spirituality/spiritual care (SSCRS), perceived competence (SCCS) and personal spirituality (JAREL, SAIL) according to demographic factors.

Insert Table 2

#### Factors contributing to spiritual care competence (SCCS)

Perceived spiritual care competence was found to be related to two main factors, namely students' perception of spirituality and spiritual care and students' personal spirituality, as presented below.

##### *Perception of spirituality/spiritual care*

Students who perceived themselves to be competent in delivering spiritual care had higher mean SSCRS scores (mean=3.59) meaning they held a broader view of spirituality/spiritual care compared to those who rated as not competent (SSCRS mean=3.49) ( $t=-3.088$ ,  $p=0.002$ ).

Perception of spirituality/spiritual care (SSCRS) was affected by:

- the practise of certain spiritual activities such as meditation ( $t=-2.370$ ,  $p=0.018$ ), never reading religious books ( $t= 2.836$ ,  $p=0.005$ ), art ( $t= -2.268$ ,  $p=0.024$ ) and rest in nature ( $t= -2.645$ ,  $p= 0.009$ ). Those who regularly practiced meditation, art and rest in nature had slightly higher mean SSCRS

scores compared to those who never practised while those who never practised reading a religious book had slightly higher mean SSCRS scores than those who practiced regularly. There was however no significant difference in terms of mean SSCRS scores between those who regularly practiced (daily/weekly) any of the listed activities and those who practised never/monthly ( $t=-1.546$ ,  $p=0.123$ ).

-whether institutions were secular or not (SSCRS,  $t=3.658$ ,  $p<0.001$ ). Students from religious universities had slightly lower mean SSCRS scores (mean= 3.51) compared to respondents from secular universities (mean= 3.6), indicating a slightly narrower view of spirituality/spiritual care.

-previous healthcare experience (SSCRS,  $t=-2.353$ ,  $p=0.019$ ). Students who reported having worked in healthcare had higher mean SSCRS scores (mean=3.6) compared to those who did not have any (mean=3.54,  $t=-2.353$ ,  $p=0.019$ ).

Students' life view was not significant in how they perceived spirituality/spiritual care (SSCRS,  $t=1.268$ ,  $p=0.025$ ).

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Spiritual care competency (SCCS) was affected by:

-life view. Students who were religious perceived themselves to be more competent in delivering spiritual care than those who were non-religious ( $t=2.384$ ,  $p=0.017$ ). A higher proportion of students who were religious had high spiritual well-being scores (JAREL,  $\chi^2(1) = 66.681$ ,  $p<0.001$ ) and higher spiritual attitude/involvement scores (SAIL,  $t=4.201$ ,  $p<0.001$ ).

-practise of certain spiritual activities. Although the practice of all seven spiritual activities were individually related to higher SAIL scores and JAREL scores, students who regularly undertook certain spiritual practices such as prayer ( $t=-3.535$ ,  $p<0.001$ ), reading religious books ( $t=-4.326$ ,  $p<0.001$ ), attending religious meetings ( $t=-3.444$ ,  $p=0.001$ ), practising art ( $t=-2.533$ ,  $p=0.012$ ), rest in nature ( $t=-2.198$ ,  $p=0.029$ ) and voluntary work ( $t=-1.985$ ,  $p=0.048$ ) had higher competency scores (SCCS) compared with those that did not undertake these practices.

- spiritual wellbeing (JAREL) and spiritual attitude/involvement (SAIL). Students who scored high on spiritual wellbeing (score of 85-126 on JAREL) and spiritual attitude/involvement (score > 4 on SAIL) perceived themselves to be more competent (SCCS score > 3.5) in delivering spiritual care ( $\chi^2(1)=13.019$ ,  $p<0.001$ ;  $\chi^2(1)=16.713$ ,  $p<0.001$ ). Students who had experienced any significant life events (SAIL,  $t(510) = 2.611$ ,  $p=0.009$ ) and who had more healthcare experience (SAIL,  $t=-3.216$ ,  $p<0.001$ ) had higher spiritual attitude/involvement (SAIL) scores.

### *Predicting spiritual care competency*

Multiple regression analysis was performed to create models to predict a person's score on SCCS (competency), SSCRS (perception of spirituality/spiritual care), SAIL (spiritual attitude/involvement) and JAREL (spiritual wellbeing) on the basis of a number of factors: age; gender; country; course (midwife or nurse); religious/secular school; prior healthcare experience; experience of life events; life view (religious v non-religious); frequency of practice of a number of religious and non-religious activities.

*Competency (SCCS)*. Three factors explained only 5.6% (5.1% adjusted) of the variance within SCCS,  $F(3, 519) = 10.356, p < 0.001$ . Being from the Netherlands rather than Malta and being a midwifery (none were registered nurses) rather than a nursing student were predictive of a higher competency score, whilst never praying rather than praying monthly was predictive of a lower competency score.

*Perception of spirituality/spiritual care (SSCRS)*. Four factors explained only 12.7% (12.1% adjusted) of the variance within SSCRS,  $F(4, 512) = 18.69, p < 0.001$ . Being a midwifery student rather than a nursing student and practising art weekly rather than monthly were predictive of a broad view whereas being from the Netherlands and Wales rather than from Malta was predictive of holding a narrower view of spirituality/spiritual care.

*Spiritual attitude/involvement (SAIL)*. Seven factors explained 31.3% (30.3% adjusted) of the variance with SAIL,  $F(7, 470) = 30.646, p < 0.001$ . Praying or seeking rest in nature daily or practising art weekly led to higher overall SAIL scores compared to participating in those activities on a monthly basis. Being from Norway rather than Malta and being over 41 years of age also led to higher overall scores.

*Spiritual wellbeing*. A logistic regression model was created to predict spiritual wellbeing (JAREL) classifications. The final model achieves 82.7% ability to predict medium or high spiritual wellbeing. Results indicate that praying daily and weekly is more likely to lead to higher spiritual wellbeing (OR 7.659, 95% CI 2.736-21.439; OR 3.186, 95% CI 1.092-9.299) compared to praying monthly and that reading religious books weekly is more likely to lead to higher spiritual wellbeing (OR 16.463, 95% CI 1.1939-139.809) compared to doing so monthly.

## DISCUSSION

The aim of this paper was to identify factors contributing to student nurses'/midwives' perceived competency in giving spiritual care. The two key factors identified in this regard were students' perceptions of spirituality and spiritual care and students' personal spirituality. Figure 1 summarises the main findings in order to aid the discussion.

Insert Figure 1

### *Perception of spirituality and spiritual care*

Students who perceived themselves to be competent in spiritual care held a broad view of spirituality/spiritual care (i.e. a view inclusive of both religious and existential elements such as meaning, purpose, value, peace and creativity).

The question of why holding a broad view of spirituality/spiritual care is significant to greater perceived competency is an important one to explore. Religiosity of students did not impact on perception of spirituality/spiritual care, but the practice of certain spiritual activities such as art, meditation and seeking rest in nature but never reading religious books did. It is not clear why practise of these particular activities is important but engaging in them may be indicative of a person who is reflective and aware of the bigger picture in life and in touch with life's broader spiritual meaning (Briggs and Lovan, 2014). Never reading religious books cannot be explained as it is out of keeping with the other

findings where reading religious books contributed positively to spiritual care competency and spiritual wellbeing.

Previous healthcare experience affected perception of spirituality with students reporting having had more experience holding a broader view. The experience of illness, suffering and death as triggers bringing the spiritual into focus is a recurring theme in the literature and has been a feature of philosophical enquiry down the ages (e.g. Jaspers and Schilpp, 1981). It may be that students who have been exposed to the suffering of others have a raised awareness of and sensitivity to spiritual concerns, both existential and transcendent, that such encounters trigger; concerns about the meaning of life, suffering and ultimately death and what lies beyond.

Whether institutions were secular or not affected perception of spirituality; students from religious universities held a slightly narrower view, possibly reflecting the ethos of those universities.

#### *Personal spirituality*

Students who were religious, who rated more highly on spiritual wellbeing and spiritual attitude/involvement and who practised activities related to their personal spiritual beliefs (prayer, reading religious literature, attending religious meetings, art, seeking rest in nature, doing voluntary work) perceived themselves to be highly competent in spiritual care.

The personal spirituality of students was also indirectly related to perceived competency through healthcare experience (which is related to a broad view of spirituality/spiritual care and thus to competency) with these students scoring higher on spiritual wellbeing and spiritual attitude/involvement (Figure 1). The practise of spiritual activities was also indirectly related to perceived competence: students who practised all spiritual activities had higher spiritual wellbeing and spiritual attitude/involvement scores (Table 2) which in turn is related to higher perceived competency. Those who practised certain spiritual activities (art, rest in nature, meditation, never reading religious books) held a broader view of spirituality/spiritual care and this was related to higher perceived competency (Figure 1).

These findings confirm what has long been postulated in the literature about the impact of the nurse's core beliefs and values on the delivery of patient care (e.g. Ross, 1994; Narayanasamy, 2006; Taylor et al., 2008; van Leeuwen et al., 2008). What is not clear is whether students with a particular religious orientation perceive themselves to be most competent in delivering spiritual care to patients of a similar faith, as suggested by Narayanasamy (2006). It will be interesting to explore the impact of spirituality teaching on raising perceived competency amongst students who are not religious and in broadening students' perceptions of spirituality/spiritual care, a factor related to higher perceived competency. This will shed further light on the debate about whether spiritual caring skills are 'caught' as suggested by Bradshaw (1997) or can be taught as the emerging body of evidence suggests (Attard et al., 2014, van Leeuwen et al., 2008, Cone and Giske 2012., Cooper et al., 2013).

#### *Predicting spiritual care competency*

An attempt to predict factors contributing to perceived spiritual care competency using a model which included the demographic factors listed in Table 2 was inconclusive. Attempts to predict perception of



spirituality/spiritual care and spiritual attitude/involvement (also related to spiritual care competency) using similar models were also inconclusive. JAREL's 82.7% ability to predict medium or high spiritual wellbeing on the basis of praying daily and weekly and reading religious books weekly may suggest that the JAREL scale is more appropriate for use with samples who claim religious affiliation because of the more religiously focused questions in the faith/belief subscale.

However, the practise of spiritual activities contributed to the small percentage of variance in all four regression models suggesting that the practise of students' beliefs/values may be worthy of further exploration in relation to spiritual care competency, possibly using different models. The country students were from also featured in three of the four models (not JAREL) as well as impacting on all study measures (Table 1) but could not be explained by whether universities were secular or religious or by whether the students studying at them were religious or not. Different educational input between countries is unlikely to explain any differences as students had just began their studies. Other factors, possibly related to culture, may be at play and requires further investigation.

### *Limitations*

Our study is limited by its sample size and homogeneity. Many of the effects shown in this study are fairly subtle and care must be taken when interpreting their clinical significance. A larger sample with greater heterogeneity may produce stronger and clearer associations in study measures. The inclusion of four countries did not produce diversity of life view (the majority of the sample was Christian) therefore exploration of the effect of cultural factors on study outcomes was limited. Although we obtained a high response rate (86%) it is possible that the exclusion of non-respondents introduced some bias. We captured students' perceptions at one point in time only. We measured perceived spiritual care competency, not actual competency for which there is currently no available measure.

### CONCLUSION

We identified that the student's personal spirituality, both in terms of their personal beliefs/values and how they practise these is directly related to perceived spiritual care competency. This finding backs up what has long been suspected in the literature and recently by studies which have shown that own spirituality served as the strongest predictor of perceived ability to provide spiritual care (e.g. Meyer, 2003; Mitchell et al., 2006). A new finding not previously identified in the literature is that viewing spirituality/spiritual care broadly (i.e. not just in religious terms) is also directly related to perceived spiritual care competency. This is an important finding because it suggests that students who have this broad perspective will be more aware of the full range of spiritual concerns that the patients/clients they care for may present with. The challenge for nurse/midwifery educators is how they might enhance spiritual care competency in students who are not religious and how they might encourage students who hold a narrow view of spirituality/spiritual care to broaden their perspective to be inclusive of all faith and no faith backgrounds.

Previous healthcare experience did not feature as prominently in our results as we had predicted, but we only included first year students. It was, however, related to a broader view of spirituality/spiritual care and to higher spiritual attitude/involvement scores, so clinical placements may foster students' spiritual awareness, as suggested by Giske and Cone (2012).

This study has shown that students' beliefs/values and how they practise these impacts on their perceived spiritual care competency. How broadly they view spirituality has a similar impact. Further investigation is needed to identify the complex range of factors contributing to spiritual care competence over the duration of undergraduate nurse/midwifery education programmes in a more culturally diverse sample. This knowledge is important to educators in developing evidence based education programmes to equip nursing/midwifery students to become competent in the delivery of spiritual care at point of registration as per regulatory body requirements. Such a study is in progress involving 21 universities in 8 countries.

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Table 1: Description of the sample (n=531)

		% (n)
Gender (n=531)	Female Male	85.1 (450) 14.9 (79)
Age (n=529)	Up to 20 21-30 31 and over	57.1 (302) 28.8 (152) 14.2 (75)
Type of course (n=531)	Nursing Midwifery	94.7 (503) 5.3 (28)
Type of University (n=531)	Secular Religious	61.8 (328) 38.2 (203)
Healthcare Experience (n=519)	No Yes	59.9 (311) 40.1 (208)
Life View (n=519)	Christian* Atheist Humanist Agnostic Muslim* Jewish* Buddhist* Hindu* Greek Orthodox* Other	80.1 (416) 5.8 (30) 3.0 (16) 1.1 (6) 0.6 (3) 0.4 (2) 0.2 (1) 0.2 (1) 0.2 (1) 9.6 (50)
Life View (n=487)	Religious (those marked *) Non-religious	87.1 (424) 12.9 (63)
Life Event (n=514)	Yes No	55.3 (284) 44.7 (230)
Life Event (n=217)	Positive Negative	17.1 (37) 82.9 (180)
Practice prayer (n=525)	Never Daily/Weekly Monthly	31.2 (164) 60.0 (315) 8.8 (46)
Practice meditation (n=500)	Never Daily/Weekly Monthly	70.4 (353) 20.8 (104) 8.8 (44)
Practice reading religious book (n=521)	Never Daily/Weekly Monthly	55.1 (287) 36.1 (188) 8.8 (46)
Practice religious meeting (n=515)	Never Daily/Weekly Monthly	34.4 (177) 50.9 (262) 14.8 (76)
Practice art (n=517)	Never Daily/Weekly Monthly	48.0 (248) 36.0 (186) 16.1 (83)

Practice rest in nature (n=518)	Never	31.1 (161)
	Daily/Weekly	35.6 (184)
	Monthly	33.4 (173)
Practice voluntary work (n=515)	Never	60.4 (311)
	Daily/Weekly	14.1 (73)
	Monthly	25.4 (131)

NB: Not all students completed all questions within all measures, therefore the numbers presented do not always add up to 531.

Table 2: Detecting differences/relationships in the measures according to demographic factors.

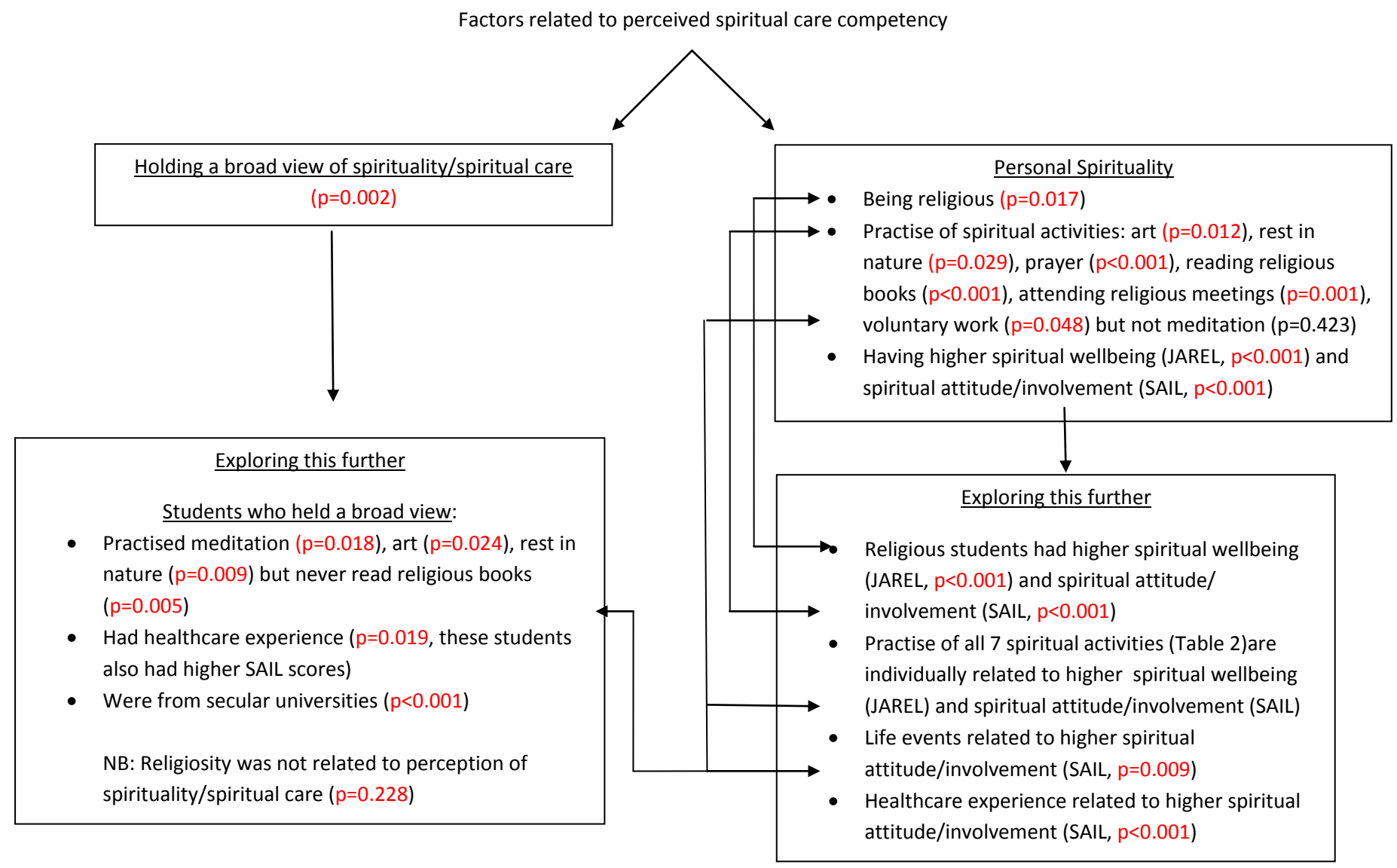
	JAREL (spiritual well-being)	SCCS (competency)	SAIL (spiritual attitude & involvement)	SSCRS (perception of spirituality/spiritual care)
Country	<.001*	.008*	<.001*	<.001*
Type of university	<.001*	.170	<.001*	<.001*
Gender	$\chi^2 = 1.83, p = .178$	.076	.717	.286
Age	.572	.454	<.001*	.148
Education	<.001*	.560	.020*	.350
Healthcare Exp (Y/N)	.788	.041*	.001*	0.019*
Life Event (Y/N)	.665	.402	.009*	.124
Life Event (Pos/Neg)	.845	.221	.081	.087
Life View (Rel v Non-rel)	<.001*	0.017*	<.001*	.205
Practice prayer	<.001*	<.001*	<.001*	.326
Practice meditation	<.001*	.105	<.001*	.018*
Practice reading religious book	.001*	<.001*	<.001*	.005*
Practice religious meeting	<.001*	0.001*	<.001*	.983
Practice art	<.001*	0.012*	<.001*	.024*
Practice rest in nature	<.001*	.029*	<.001*	.009*
Practice voluntary work	<.001*	.048*	.001*	.587
SCCS (Competency)	<0.001*		*<.001*	.002*

\*Indicates significant

For example, there is a statistically significant difference between people with religious or non-religious life views in terms of SCCS score ( $p=0.017^*$ ). However there is no difference between people who have experienced a life event in terms of SCCS score ( $p=0.402$ ).



Figure 1: Factors related to perceived spiritual care competency



Research Highlights

Students reporting higher perceived spiritual care competency:

-were religious

-practised religious/spiritual activities

-reported high spiritual wellbeing (measured by JAREL) and high spiritual attitude/involvement (measured by SAIL)

-viewed spirituality and spiritual care broadly, not just in religious terms.