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A cross-sectional descriptive study of occupational therapy students' perceptions and attitudes towards spirituality and spiritual care in occupational therapy education

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Abstract
Spirituality and spiritual care both have received increased attention over the course of this past decade from different disciplines. However, for many years, in the occupational therapy profession, the importance of spirituality and spiritual care seems to be controversial because it is unclear how these concepts are integrated in occupational therapy education. Although occupational therapy students are being educated to consider a holistic and client-centred approach, spirituality is not regarded within this framework which diminishes the integrity of holistic approach. In South African occupational therapy education, it is unclear whether any single course on teaching and learning of spirituality and spiritual care exists. Thus, the aim of this study was to describe occupational therapy students' perceptions and attitudes regarding spirituality and spiritual care in occupational therapy education. A cross-sectional descriptive study design of undergraduate occupational therapy students from one educational institution was used. Data included demographic characteristics, responses on Spiritual Care-Giving Scale (SCGS), Spiritual and Spiritual Care Rating Scale (SSCRS) and Spirituality in Occupational Therapy Scale (SOTS). A response rate of 50.5 % (n = 100 out of 198) was achieved. In the SCGS, among the factors only factor 1 had the highest mean value score showing consistent agreement about spirituality, whereas in the SSCRS only three factors were found to have highest mean score and one with lowest mean score. In SOTS, participants had a highest score mean in relation to formal education and training about spirituality. Thus, in the integration of spirituality and spiritual care a holistic approach needs to be considered in education to enhance students' knowledge of how to address mind, body and spirit needs.

Introduction
Spirituality and spiritual care both have received increased attention over the course of this past decade from different disciplines. With regard to the definition of spirituality, research has shown that there are various definitions used. For instance, Csontó (2009) and Kang (2003) point out that the scarcity of an acceptable definition of spirituality results in a challenge for practising students and occupational therapists. Therefore, for the purpose of this study Puchalski et al.'s (2014) definition was adopted defining spirituality as:

a dynamic and intrinsic aspect of humanity through which persons seek ultimate meaning, purpose, and transcendence, and experience relationship to self, family, others, community, society, nature, and the significant or sacred. Spirituality is expressed through beliefs, values, traditions, and practices (p. 646).

There is a need for healthcare professionals to increase their knowledge and confidence in addressing spiritual issues as part of healthcare services (Meredith et al. 2012). Therefore, research has shown that spirituality has been a neglected aspect of education which appears to be a concern within spheres of interest in healthcare education and continues to evolve based on societal needs (Webster 2003; Borneman 2011; Morris 2013; Morris et al. 2012; Puchalski 2001, 2006; King and Crisp 2005). This suggests that medical schools should teach their students how to meet the societal needs and health systems need to provide a conducive environment and foster compassionate caregiving. Hence, Hinojosa (2007) challenges healthcare educators and faculty members to be innovators in adapting education and practices to meet the new realities of the world as this is essential for health professionals to continue to develop. This could mean that educators should consider various movements and changes in higher education especially in health science education such as integrative, transformative, collaborative and interdisciplinary education. These education strategies share the idea of using a variety of active and reflective pedagogies to encourage deep learning across disciplines. Therefore, training institutions may need to equip health science graduates with necessary knowledge and skills to integrate spirituality and spiritual care.

Some evidence shows that occupational therapy students in ten Canadian occupational therapy programmes believe that spirituality has some relevance to the profession (Kirsh et al. 2001). Kirsh et al.'s (2001) study found that nine of the occupational therapy programmes introduced spirituality in the beginning of the programme; however, in the remaining one it was part of the selective course only. Moreover, the findings indicated that importance attached to spirituality within the programmes was very low (Kirsh et al. 2001). The confidence of the students in dealing with spirituality in the curricula was also low. In contrast, a qualitative study conducted by Barry and Gibbens (2011) in the UK found that participants who engaged in reflection about spirituality had higher possibilities of addressing clients' spiritual needs in practice. This suggests that personal reflection about spirituality could be used in occupational therapy education in order to prepare students.

Many occupational therapists and researchers have commented on the need to address spirituality in occupational therapy education (Morris 2007; Wilding 2002, 2003; Belcham 2004; Kelso-Wright 2012). This was also a concern in a study conducted that examined the responses of occupational therapists on the subject of spirituality in occupational therapy practice (Morris et al. 2012). The findings showed that practising occupational therapists needed more emphasis on spirituality in formal occupational therapy curricula and a desire on the part of practitioners to attend workshops in which the construct of spirituality is explained. Therefore, Morris et al.'s study identified a gap between education, theory and practice in occupational therapy. Various researchers have emphasised that there is a need

2

to bridge the gap between professional theory and practice relating to spirituality in occupational therapy (Csontó 2009; Belcham 2004). They further identified that practical training and strategies might be of help to enhance occupational therapists' confidence.

Statement of the Problem

For many years, in the occupational therapy profession, the importance of spirituality and spiritual care seems to be controversial because it is unclear how these concepts are integrated in occupational therapy education (Csontó 2009; Belcham 2004; Morris et al. 2012; Wilding 2002; Thompson and MacNeil 2006). Despite the growing number of studies on spirituality and spiritual care, there continues to be a gap in the training of occupational therapists to be truly holistic clinicians (Morris et al. 2012; Morris 2007). Although occupational therapy students are being educated to consider a holistic and client-centred approach, spirituality is not regarded within this framework which diminishes the integrity of holistic approach. Additionally, the views of students, educators and clinicians have not been explored regarding the inclusion of spirituality and spiritual care in occupational therapy education (Belcham 2004; Johnston and Mayers 2005). In South African occupational therapy education, it is unclear whether any single course on teaching and learning of spirituality and spiritual care exists. Thus, the aim of this study was to describe occupational therapy students' perceptions and attitudes regarding spirituality and spiritual care in occupational therapy education.

Methods
Study Design and Sample

A quantitative cross-sectional descriptive study design was used for the purpose of this study. The study was descriptive as detailed information about the occupational therapy students' perception and attitudes regarding spirituality and spiritual care in education was collected. A non-probability convenience sampling method was used to select all under-graduate occupational therapy students (n = 198) to participate in the study. The number of students in each class ranges from 40 to 50. A total number of 198 online self-report questionnaires were emailed as a link of Google form together with a covering letter explaining the purpose of the study, and 103 (52 %) students submitted their responses. From the submitted questionnaire, three were incomplete and were therefore excluded. The final sample of 100 (50.5 %) students participated in the study.

This study was approved by the Ethics Committee and Higher Degrees Committee (ethical clearance: 14/4/18). Permission was obtained from the Registrar, Dean of Research at the University of the Western Cape and Deputy Dean of Research in the Faculty of Community and Health Science. Participation in the study was voluntary for all occupational therapy students. The participants were provided with a letter explaining the purpose of the research study requesting their participation and assuring them confidentiality. All data were de-identified and kept in a safe place only accessible to the supervisors and the primary author. Participants provided informed consent to participate in the study. Furthermore, the participants had the right and opportunity to withdraw from

3

the study at any time without any repercussions. Electronically submitted questionnaires were protected with a password for Google Drive.

Data Collection Instruments

Data were collected with an online self-report questionnaire adapted from other studies of spirituality and spiritual care (Morris et al. 2012; Tiew 2011; McSherry et al. 2002).

Demographic Characteristics

The demographic information regarding age, gender, race, marital status, religion, level of education was obtained in this study. Race was divided into African, White, Coloured and Indian. Marital status was divided into single, married, divorced and separated. Level of education was categorised into first year, second year, third year and fourth year.

Spiritual Care-Giving Scale (SCGS) Tiew (2011)

Spiritual Care-Giving Scale (SCGS) comprises five factors with a six-point Likert scale, which was developed and tested to be valid and reliable (a = 0.96). The five factors include: (1) Attributes for Spiritual Care, (2) Spirituality Perspective, (3) Defining Spiritual Care, (4) Attitudes to Spiritual Care and (5) Spiritual Care Values. In the current study, the Cronbach's alpha value for this scale was 0.94. Permission to use the 35-item SCGS questionnaire was granted by Dr. Tiew on 2 March 2012.

Spirituality and Spiritual Care Rating Scale (SSCRS) McSherry et al. (2002)

The Spirituality and Spiritual Care Rating Scale (SSCRS) was designed specifically to explore individual nurses' beliefs and values and has four factors: (1) Spirituality; (2) Spiritual Care; (3) Religiosity; and (4) Personalised Care. The 17-item scale uses a five-point Likert scale response option. This instrument demonstrated modest internal consistency with a Cronbach's alpha of 0.64. The Cronbach's alpha of the scale was 0.76 in this study. Permission to use 17-item SSCRS questionnaire was granted by Prof Wilfred McSherry on 6 February 2012.

Spirituality Occupational Therapy Scale (SOTS) Morris et al. (2012)

Spirituality in Occupational Therapy (SOT) questionnaire is one of the reliable tools to measure spirituality in occupational therapy. The SOT was designed specifically to examine occupational therapists' self-reported perceptions regarding: (1) spirituality in the scope of practice following its addition in the theoretical framework, (2) formal education and training in spirituality, (3) need for future educational opportunities and training to address spirituality and (4) awareness of assessments and evaluations in occupational therapy that incorporate clients' spirituality. The 20-item scale uses a five-point Likert-type scale response option. No reliability and validity were reported by the author. In the present study, the Cronbach's alpha value for this scale was 0.87. Permission to use 20-item SOTS questionnaire was granted by Dr. Morris on 12 June 2012.

Procedure

The Head of Occupational Therapy Department was consulted to request permission to conduct the study, and permission was granted. Students were given information about the study, and the online self-questionnaire was emailed as a link of Google forms to the students. The students completed the questionnaire online on their spare time, and arrangements were made to accommodate those without access to Internet by booking the computer laboratory so that they could also complete the questionnaire. The students' responses were automatically calculated online, then exported to Microsoft Excel 2010 to create a compatible data set for statistical analysis.

Statistical Analysis

Descriptive data analysis was performed using the Statistical Package for the Social Sciences (SPSS) software 20.0 (SPSS, Inc, Chicago, IL, USA). The data were cleaned and coded by the primary researcher for completeness in preparation for analysis. Descriptive statistics were used to characterise demographic with number (n) and percentages (%). For the variables from the scales (SCGS, SSCRS and SOTS), proportions, mean scores and standard deviations are reported. A higher score of the means in the scales indicated a higher level of agreement and a more positive perception and attitude about spirituality and spiritual care.

Validity and Reliability

The reliability of the SCGS and SSCRS has been established previously. The Spiritual Care-Giving Scale (SCGS) was developed and tested to be valid and reliable (a = 0.96) (Ross et al. 2013). The 17-item SSCRS demonstrated a reasonable level of internal consistency reliability, having a Cronbach's alpha coefficient of 0.64. In this study, stability and consistency both were assessed for the reliability of the questionnaire. Therefore, the reliability coefficients ranging between 0.00 and 1.00, with 1.00 showing the unattainable perfect reliability, and 0.00 indicating no reliability. Hence, the acceptable reliability coefficient was 0.70 for the study. Validity refers to the degree to which what is being measured is what the researchers intended (Tiew 2011). For the purpose of the study, validity was enhanced through use of previously validated questionnaires. Face and content validity of the instrument to be used in the study was considered.

Results

Demographic Characteristics of Participants

A total number of 100 undergraduate occupational therapy students participated in the study. The response rate was 50.5 %, and students were reminded many times about the study through email as well as verbally. Table 1 summarises the demographic characteristics of the participants. The year levels of education of the students were: 11 (10.7 %)

5

Table 1 Characteristics of the study population (100)

Characteristics	Frequency	%
Gender		
Female	89	86.4
Male	12	11.7
Age (years)		
≤ 18	1	1
19–23	87	84.5
24–28	11	10.7
29–33	1	1
Missing	3	2.9
Mean ± SD	21.5 ± 2.09	
Race		
African	22	21.4
White	31	30.1
Coloured	42	40.8
Indian	5	4.9
Missing	3	2.9
Marital status		
Single	98	95.1
Married	1	1
Separated	1	1
Missing	3	2.9
Religion		
Yes	94	91.3
No	5	4.9
Missing	4	3.9
Study year		
First year	11	10.7
Second year	38	36.9
Third year	21	20.4
Fourth year	31	30.1
Missing	2	1.9

first-year students, 38 (36.9 %) second-year students, 21 (20.4) third-year students and 31 (30.1) fourth-year students. Most of the participants in the present study were females (n = 89; 86.4 %). The mean age of the study sample was 21.5 ± 2.09 years with a range of 18–33 years. The majority of occupational therapy students were within the range of 19–23 years (n = 87; 84.5 %). In this study, the majority of students (91.4 %) indicated that they belong to a religion compared to 4.9 % who reported that they do not belong to a religion.

6

Occupational Therapy Students' Spiritual and Beliefs
The results show that 34 % (n = 35) of the participants attended and engaged in religious activities occasionally once a year and 2.9 % (n = 3) attended once fortnight. There were participants who reported that they were involved in non-religious activities such as meditation, scriptural study group and prayer (n = 13; 12 %). In terms of how the participants perceived themselves, less than half of the participants (n = 41; 39 %) indicated that they perceived themselves as religious. However, more than half of the participants (n = 60; 57 %) revealed that they were spiritual.

Responses to Spiritual Care-Giving (SCGS)
Table 2 summarises the results for mean scores and standard deviations of spirituality and spiritual care by participants. The average item mean value for SCGS was 5.03 (SD = 0.97). Item 24 had the lowest mean 'I am comfortable providing spiritual care to patients' (M = 4.29, SD = 1.29), and the highest mean was for item 14 'Spiritual care is a process and not a one-time event or activity' (M = 5.49; SD = 0.75). In the current study, mean values were computed for each factor. The mean value for factor 1 was 5.18 (SD = 0.94); 5.13 (0.95) for factor 2; 5.12 (SD = 0.87) for factor 3; 4.76 (SD = 1.03) for factor 4 and 4.88 (SD = 1.06) for factor 5. Among the factors, only factor 1 had the highest mean value score showing consistent agreement about spirituality.

Regarding the five factors, items with highest mean value include:(1) 'Attributes for Spiritual Care' indicated participants' agreement that everyone has spirituality, (2) 'Spirituality Perspective' the highest mean value reflected that participants' agreement that spirituality is part of our inner being, (3) 'Defining Spiritual Care' the item viewing spiritual care as a process and not a one-time event or activity had a highest mean score, (4) additionally, in factor 4 the highest score was observed in participants' belief that spiritual care was important because it gives patient hope. The results about the highest score in factor 5 indicated that participants agreed that spiritual care was an integral component of holistic occupational therapy. The SCGS had shown good reliability with a Cronbach's alpha of 0.95 for this sample of occupational therapy students.

Responses to Spirituality and Spiritual Care (SSCRS)
The calculations in this study indicated that the average mean score for SSCRS was 3.83 (SD = 0.96) as provided in Table 3. Based on the results of the study, the lowest mean scores found include: item 4 'I believe spirituality involves only going to Church/Place of Worship' (2.10; SD = 1.330) and item 16 'I believe spirituality does not apply to Atheists or Agonists' (2.40; SD = 1.160). Additionally, two items with highest mean scores included: item 9 'I believe spirituality is about having a sense of hope in life' (4.37; SD = 0.87) and item 14 'I believe occupational therapists can provide spiritual care by having respect of privacy, dignity and religious and cultural beliefs of patient' (4.35; SD = 0.80).

Based on the descriptive analysis, factors' mean scores were calculated to obtain the results. The four factors include: (1) Spirituality (M = 3.77; SD = 1003); (2) Spiritual Care (M = 4.23; SD = 0.891); (3) Religiosity (M = 2.91; SD = 1.094) and (4)

7

Personalised Care (4.17; 0.879). As a result, only three factors found were to have highest mean score and one with lowest mean score.

The results revealed that there was consistent agreement among the participants as they indicated that they believe spirituality provide a sense of hope in life. It was found that the participants believed that occupational therapists could provide spiritual care by listening to patients and allowing them time to discuss and explore their fears, anxieties and troubles. Two items had mean score of 4.28: item 2 indicated participants' belief that occupational therapists could provide spiritual care by showing kindness, concern and cheerfulness when giving care. Furthermore, item 11 revealed that the participants believed that spirituality was a unifying force which enables one to be at peace with oneself and the world. It was evident from the results that there was consistent agreement that participants believed occupational therapists could provide spiritual care by having respect for the privacy, dignity, religious and cultural beliefs of patients.

Table 2 Scores on the Spiritual Care-Giving Scale ($n = 103$)

	Mean	SD
Factor 1	5.18	0.942
Q27. Individual definition_SC	5.31	0.784
Q28. Occupational therapists' spiritual awareness _SC	5.10	0.909
Q29. Individuals' awareness of spirituality_SC	5.24	0.991
Q33. Experience_SC	5.11	0.915
Q36. Life experiences_SC	5.24	0.889
Q37. Coping_SC	5.29	0.931
Q38. Empathy_SC	4.99	1.118
Q39. Trusting relationship_SC	5.17	1.001
Factor 2	5.13	0.950
Q1. Universal_Sp	4.57	1.328
Q2. Human beings_Sp	5.41	0.933
Q3. Energy_Sp	5.23	0.847
Q4. Inner feelings_Sp	5.13	0.879
Q5. Innate_Sp	5.29	0.829
Q6. Meaning of good and bad events of life_Sp	5.00	0.970
Q7. Emotional well-being_Sp	5.27	0.871
Q8. Answers about purpose in life_Sp	5.20	0.949
Factor 3	5.12	0.874
Q14. Process_SC1	5.49	0.745
Q15. Respecting religious beliefs_SC1	5.43	0.817
Q16. Sensitivity and intuition_SC1	5.23	0.835
Q17. Being/presence_SC1	4.57	1.089
Q18. Respecting the religious and cultural beliefs_SC1	5.19	0.784
Q19. Listen_SC1	5.02	0.894
Q26. Respecting dignity_SC	4.94	0.957
Factor 4	4.76	1.030
Q21. Believes SC gives meaning and hope_Att	4.97	1.049
Q22. Facilitates religious support_Att	4.92	0.900
Q24. Feels comfortable to providing SC_Att	4.29	1.134
Q31. Reinforced in occupational therapy education_Att	4.76	1.088
Q32. Reinforced in occupational therapy practice_Att	4.86	0.970
Q40. SC team approach_SC	4.30	1.285
Q35. SC is important because it gives patient hope_Att	5.27	0.786
Factor 5	4.89	1.063
Q9. Holistic_SCV	4.42	1.329
Q10. Connecting oneself with nature and other_SCV	5.15	0.984
Q11. Integral aspect of human beings_SCV	5.18	0.942
Q12. Spiritual care than religious care_SCV	4.76	1.218
Q13. Effective Occupational therapy = spiritual care_SCV	4.77	0.937
Average item mean	5.03	0.968

Range for each item is from 1 (strongly disagree) to 6 (strongly agree); the higher the scores, the higher the agreement

Table 3 Scores on the Spirituality and Spiritual Care Rating Scale ($n = 103$)

	Mean	SD
Factor 1	3.77	1.003
Q6. Finding meaning in the good and based on events of life	3.99	1.059
Q8. OT can provide Spiritual Care meaning and purpose	4.11	0.909
Q9. Sense of hope in life	4.37	0.872
Q10. Conducts one's life here and now	4.04	0.920
Q12. Not include art, creativity and self-expression	2.36	1.257
Factor 2	4.23	0.891
Q1. OTs arrange patient's religious leader by request	4.06	1.013
Q2. Spiritual Care by showing kindness, concern and cheerfulness	4.28	0.911
Q7. Being/presence	4.18	0.869
Q11. Energy	4.28	0.866
Q14. Respecting privacy, dignity and religious and cultural beliefs	4.35	0.796
Factor 3	2.91	1.094
Q4. Involves only going to Church/Place of Worship	2.10	1.330
Q13. Listening to patients	4.24	0.793
Q16. Does not apply to Atheists or Agonists	2.40	1.160
Factor 4	4.17	0.891
Q14. Respecting privacy, dignity and religious and cultural beliefs	4.35	0.796
Q15. Personal friendship and relationships	3.86	1.030
Q17. People's morals	4.31	0.812
Average item mean	3.83	0.962

Range for each item is from 5 (strong agree) to 1 (strongly disagree); the higher the scores, the higher the agreement

Students' Responses on the Spirituality in Occupational Therapy Scale (SOTS)

Based on the Spirituality in Occupational Therapy Scale, the average mean score was 2.37 (SD = 1.072). The calculations on this scale revealed that there was a lowest mean score of 1.71 (SD = 1.140) in item 18 'Spirituality is an integral part of the human experience' and highest score of 3.52 (SD = 1.150) in 'I am aware of various assessments that address spiritual needs of my clients'. The results obtained from the SOTS's calculations are presented in Table 4.

In relation to the factors of SOTS, this current study presents the mean score: (1) spirituality in the scope of practice following its addition in the theoretical framework (2. 31; SD = 1.036), (2) formal education and training in spirituality (2.65; SD = 1.064), (3) need for future educational opportunities and training to address spirituality (1.87; SD = 1.062) and (4) awareness of assessments and evaluations in occupational therapy that incorporate clients' spirituality (1.88; SD = 1.213).

Table 4 Scores on the Spirituality in Occupational Therapy Scale ($n = 103$)

	Mean	SD
Factor 1	2.31	1.036
Q1. Education has adequately prepared me	2.98	1.077
Q2. My treatment sessions would be enhanced	1.97	0.943
Q3. Pursue further education	2.08	0.986
Q4. Effort to find more information on spirituality	2.63	1.102
Q5. Attending an educational workshop	1.89	1.076
Factor 2	2.65	1.064
Q6. Spirituality should be addressed by OTs	1.87	0.945
Q7. Clients' responsibility to inform the OTs	2.72	1.078
Q8. My experience as an OT prepared one	2.99	1.127
Q9. Comfortable addressing spirituality with my clients	2.58	1.089
Q10. OTs address client's spiritual needs	2.30	0.900
Q11. Spiritual assessments	3.34	1.143
Q12. Awareness of assessments	3.52	1.150
Q13. Confident addressing the spiritual needs	2.32	1.141
Q14. Client's spiritual need has a direct effect on my client's quality of life	1.98	1.086
Q15. I treat my client's spiritual needs	2.96	0.989
Factor 3	1.87	1.062
Q16. Spirituality helps clients define their therapeutic goals	2.04	0.999
Q17. Spirituality helps clients define who they are	1.88	1.047
Q18. Spirituality is an integral part of the human experience	1.71	1.140
Factor 4	1.88	1.213
Q19. Familiar with the Occupational Therapy Domain and Processes	1.97	1.292
Q20. Appropriate to include spirituality as a client factor in the Occupational Therapy Domain and Processes	1.79	1.134
Average item mean	2.37	1.072

Range for each item is from 1 (strong agree) to 5 (strongly disagree); the higher the scores, the higher the agreement

From the computation of the mean scores, it was identified that there were four items with highest mean scores from each factor. Regarding the inclusion of spirituality in the scope of practice, the participants agreed that their formal education had adequately prepared them to address their clients' spiritual needs. Additionally, to formal education and training in spirituality there was a consistent agreement that participants were aware of various assessments that address spiritual needs of their clients. Furthermore, the participants agreed that spirituality helps clients define their therapeutic goals.

Relationship Between SCGS, SSCRS and SOTS Factors

There was statistical relationship between SCGS: factor 1 (Attributes for Spiritual Care), factor 2 (Spirituality Perspective), factor 3 (Defining Spiritual Care), factor 4 (Attitudes to Spiritual Care), factor 5 (Spiritual Care Values) ($r = 0.705$, $r = 0.822$, $r = 0.754$, $r = 0.640$, $p \searrow 0.01$, respectively). In relation to factor 1 (Attributes for Spiritual Care) of SCGS and SSCRS, there was a relationship with SSCRS 1 (Spirituality/Existential), SSCRS 2 (Spiritual Care), and SSCRS 4 (Personalised Care) ($r = 0.285$, $r = 0.407$, $r = 0.352$, $p \searrow 0.01$, respectively). However, SSCRS 3 (Religiosity), SOTS 1 to SOTS 4 factors were not statistical significant.

The SSCRS 3 (Religiosity) was negatively correlated with SCGS factor 3 (Defining Spiritual Care) ($r = -0.253$, $p \searrow 0.5$). Additionally, SOTS 1 Spirituality in Occupational Therapy was negatively correlated with SCGS factor 4 (Attitudes to Spiritual Care) ($r = -0.323$, $p \searrow 0.01$).

Discussion

In the current study on perceptions and attitudes of occupational therapy students towards spirituality and spiritual care in occupational therapy education, there were more female compared to male participants. Similar findings were found in previous studies which suggest that females, rather than males, tend to study within the health field such as social work and nursing which indicated greater numbers of women students (Bhagwana 2010; Tiew et al. 2013a; Wong et al. 2008; Tiew et al. 2013b; Ross et al. 2013).

Across all the factors of the SCGS, occupational therapy students scored high on the perceptions of spirituality and spiritual care. Regarding the concept of spirituality, the findings of the present study show that occupational therapy students highly agreed that human beings have inner being that assists to express emotional well-being and purpose about life. In addition, the participants reported agreement that spirituality is about the meaning of human beings' good and bad events. These views are consistent with Tiew et al. (2013a, b) and likewise Ozbasaran et al. (2011) who found that spirituality is common to everyone and that spirituality is about living one's life 'here and now'. In this study, the findings demonstrated that participants' spiritual views seemed to be humanistic of about human beings.

Additionally, in Attributes for Spiritual Care (factor 1), the participants expressed agreement that spiritual care attributes include spiritual awareness, empathy and building trusting relationships. This finding was supported by Baldacchino (2011), Timmins and Neill (2013) which indicated that students need to develop self-awareness regarding their spirituality before they may address other people's spiritual needs.

Responses to items related to factor 2 (Spirituality Perspective) scored second highest overall mean on the SCGS in the present study. This is consistent with findings by Tiew et al. (2013a, b), who found highest scores from participants' responses who constantly agreed with the conception that spirituality and spiritual care include: (1) qualities of being

12

human; (2) emotional well-being; (3) unifying force which enables individuals to be at peace; (4) search for answers about meaning and purpose in life; and (5) inner feelings. These findings raised the importance of self-awareness among the students in relation to their views about spirituality and spiritual care.

In factor 3 (Defining Spiritual Care), this study indicates that the participants viewed spiritual care as a process and not a once-off activity or event. This finding reveals that students perceived that they need to respect patients' religious beliefs, cultural beliefs and dignity. The present findings are consistent with Ozbasaran et al.'s (2011) and Hodge and Horvath's (2011) views that spiritual care considers the importance of clients' beliefs.

However, in the current study, item 17 scored low mean value about being with the patient is a form of spiritual care. This is consistent with Tiew et al. 's (2013a) study which reported a low mean value in student nurses' responses regarding spiritual care as part of being with a patient as a form of spiritual care. These results provide further support for the understanding spiritual care in occupational therapy. Additionally, these findings has important implications for developing guidelines to integrate spirituality and spiritual care as they form part of clients' factors and performance patterns in occupational therapy framework.

In relation to Attitudes to Spiritual Care (factor 4) scored low overall mean score compared to other factors in the SCGS. However, in the current study, the participants agreed that spiritual care is essential as it provides patient hope, meaning and purpose. In addition, majority of the participants felt that spiritual care should be addressed and reinforced more in practice. This could support the idea that students need role models in practice and learn how to practice spiritual care. This is consistent with Morris et al.'s (2012) suggestion about bridging the gap between theory and practice about spirituality. Less than half of the participants indicated that team approach is very important in addressing spiritual care. The finding is consistent with findings of past studies by Tiew and Drury (2012) and Rose (1999) which recommended that a multidisciplinary approach should be implemented to address the spiritual needs of clients. One of the issues that emerge from these findings is the involvement of all members in addressing the role of spirituality in health care in an interdisciplinary team.

For factor 5 (Spiritual Care Values), two-thirds of the participants consistently agreed the ideas that spiritual care is the fundamental of holistic occupational therapy and spiritual needs are met are by connecting oneself with other people, higher power or nature. Mthembu et al. (2014) and Rose (1999) found that spiritual care is unique to every individual with relationship with God, nature and other, which is in good agreement with the results of the present study. However, the participants in the study had low mean value of holistic approach, and as a result, this finding is consistent with other previous studies (Tiew et al. 2013b).

The findings of the study indicate that students' responses had high overall mean scores on the SSCRS. The present findings suggest that occupational therapy students were spiritually minded. This is consistent with Wong et al. (2008) and Ozbasaran et al.'s (2011) studies which indicated that nurses were willing to provide spiritual care to patients.

Regarding Spirituality (factor 1), the findings of the study show that the participants had a high level of agreement on the believe that 'spirituality provide sense of hope' and 'occupational therapists can provide spiritual care by enabling a patient to find meaning and purpose in their lives'. This result may be explained by a number of different reasons that occupational therapist believe that human being engage to meaningful and purposeful occupations. Additionally, the present findings seem to be consistent with other studies which explained that human beings have basic needs including purpose, meaning, self-worth, choice and control and occupation (Hammell 2004; McSherry et al. 2008). Furthermore, the findings of the study concur with Johnston and Mayers (2005) suggestion that undergraduate occupational therapy programmes need to address spirituality to enhance holistic care for individuals, families, society and communities.

For factor 2 (Spiritual Care), this is the factor whereby the participants expressed a highest agreement on two items: 'I believe spirituality is a unifying force which enables one to be at peace with oneself and the world' and 'I believe occupational therapist can provide spiritual care by showing kindness, concern and cheerfulness when giving care', respectively. A possible explanation for these findings may be the understanding of ethical principles including autonomy, beneficence, justice and non-maleficence. The reason for this is not clear, but it may have something to do with the belief that occupational therapists may provide spiritual care by having respect of privacy, dignity and religious and cultural beliefs of patient. The findings of the current study are consistent with those of Wallace and O'Shea (2007) who found interventions considering spirituality should involve arranging visits with religious personnel, showing kindness, spending time to listening, being present and showing respect for residents' needs.

In this study, the responses in factor 3 (Religiosity) indicated a high level of agreement in the item of 'I believe occupational therapist can provide spiritual care by listening to and allowing patients' time to discuss and explore their fears, anxieties and troubles. These findings corroborate the drafted definition of Sumsion (1999), who defined client-centred occupational therapy as a 'partnership between the therapist and the client' which promotes collaboration goal setting. Additionally, Sumsion's (1999) study found that therapist listens and respects the client's standards and adapts the intervention to meet the client's needs. Thus, Wong et al. (2008) emphasise the need for holistic education which strive to teach health science students to support patients and nurture their emotional, physiological and spiritual needs. The present findings seem to be consistent with other research which found that spirituality is unique and subjective and people's views are different and not only apply to religion (Egan and Swedersky 2003; Mthembu et al. 2014). This finding is in agreement with Koenig's (2002) commentary that spiritual needs are defined broadly regarding both religious and non-religious needs. Additionally, Koenig (2002) indicated

14

that religious needs include making peace in one's relationship with God and with others but not restricted to religion involving finding purpose and meaning, forgiving others and receiving forgiveness.

In relation to factor 4 (Personalised Care), this factor scored second highest mean value in the SSCRS. On the personalised care, this study found that participants indicated high level of agreement with the belief that occupational therapist can provide spiritual care by having respect of privacy, dignity and religious and cultural beliefs of patient. Additionally, in this factor item 17 was found to have a high mean score which participants highly agreed that spirituality involve people's morals. This study confirms that spirituality include morals and consistent with the findings of McSherry et al. (2008) and McSherry et al. (2002).

On the SOTS scale, this study found that students reported lowest overall mean value compared with SCGS and SSCRS. This result may be explained by the fact that they inconsistently agreed that spirituality should be included in the Occupational Therapy Practice Framework.

In factor 1 (Education), the participants indicated less agreement about education adequately prepared them. This study produced results which corroborate the findings of great deal of the previous work in occupational therapy. A possible explanation for some of lowest mean values may be lack of adequate training and unprepared academically to address patients' spiritual needs (Corry et al. 2015). It can thus be suggested that there is a need for spirituality in occupational therapy education in order to enhance holistic approach. Additionally, these findings suggested that educators may put effort to involve other team members from various disciplines.

Regarding the Scope of practice (factor 2), the participants reported highest agreement in relation to being 'aware of various assessments that address spiritual needs of clients of my clients'. However, these findings contradict with items 10 and 13 that participants less agreed with these items—'It is my responsibility to address my client's spiritual needs' and 'I am confident addressing the spiritual needs of my clients when their beliefs are similar to my own', respectively. These findings are in agreement with Thompson and MacNeil's (2008), Csontó (2009) likewise Belcham's (2004) suggestions that students, clinician and educators need to be thoroughly trained on spiritual assessments. Therefore, these suggestions may mean that there is a need for role models in practice in order to enhance occupational therapists' knowledge, skills and attitudes towards spirituality in practice. This corroborates the ideas of Kelso-Wright (2012) who suggested that occupational therapy students need to be introduced to FICA and use it to assess spiritual history of clients. The results of the present study support Brémault-Phillips et al. (2015) study about the importance of integrating spirituality in patient care. Additionally, Brémault-Phillips et al. (2015) have found that integrating spirituality in patient care results in positive influence on patients, health professionals and overall organisational culture.

Based on factor 3 (Spiritual Importance), the participants scored lowest mean value in the item 18 which report that 'Spirituality is an integral part of the human experience'. This in contrast with the findings of Tiew et al. (2013a) that student nurses perceived spiritual care as an integral component of human beings.

In relation to Occupational Therapy Practice Framework (factor 4), the participants less agreed that they were familiar with the OTPF and inclusion of spirituality in OTPF as a client factor. These findings are consistent with Morris et al. (2012) who indicated that little is known about studies regarding spirituality in OTPF.

Regarding the relationships among the scales, there was a positive and negative relationship between the scales while the occupational therapy programme never infuses spirituality and spiritual care in the teachings. This is consistent with the findings of Tiew et al. (2013a, b) which also found positive and significant relationship between the SCGS and the teaching programme provided to nursing students. This could be explained by the fact that occupational therapy students are taught about the importance of client-centred and holistic approaches.

Limitations and Strength of the Study
Several limitations of the current study need to be acknowledged. The study only included occupational therapy students from one university; therefore, the findings may not be generalised to other occupational therapy students. Additionally, these findings are limited by the use of a cross-sectional study design as it does not provide the causal associations among the study's variables. The study used convenience sampling in order to select the sample; thus, participants who responded might have a specific interest in the topic. Therefore, the findings might have been different if those participants who did not respond were considered. An online self-report questionnaire was used to collect data which may have influenced how the participants responded in the questions and may have led to overestimation. Therefore, qualitative methods would be useful to explore the findings of the current study.

Conclusion
The current findings add substantially to our understanding of spirituality and spiritual care in occupational therapy education. For many years, in the occupational therapy profession, the importance of spirituality and spiritual care has been controversial because it is unclear how these concepts are integrated in the occupational therapy education. Thus, the purpose of the study was to describe occupational therapy students' perceptions and attitudes regarding spirituality and spiritual care. The main findings of the present study demonstrated that occupational therapy students have a reasonable regard for spirituality and spiritual care. However, there was less regard about the inclusion of spirituality as a client factor in the Occupational Therapy Practice Framework. Consequently, this study provides a foundation for raising awareness of students about the importance of spirituality and spiritual care on the profession to enhance holistic care. Thus, in the integration of spirituality and spiritual care a holistic approach needs to be considered in

16

education to enhance students' knowledge of how to address mind, body and spirit needs. The variables from the SCGS were found to be correlated with SSCRS and SOTS. Future studies should explore the undergraduate occupational therapy students', educators' and clinicians' perceptions regarding spirituality and spiritual care through qualitative research.

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Authors' Contributions

TGM designed the survey, consulted the owners for the permission to use their instruments, created the questionnaire with the Google forms, conducted the statistical analysis of data collected, interpreted data and wrote the manuscript in partial fulfilment of obtaining a PhD degree. NVR participated in statistical analysis and critically reviewed the manuscript as a supervisor. LW provided input regarding the occupational therapy perspective and critically reviewed the manuscript as a supervisor. All the authors have read and approved the final manuscript. All the authors have read and approved the final manuscript.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no competing interest.

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