Learning About End-of-Life Care in Nursing - A Global Classroom Educational Innovation

Bailey, Cara; Orr, Michelle; Hewison, Alistair; Baernholdt, Marianne

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Learning About End-of-Life Care in Nursing - A Global Classroom Educational Innovation
--Manuscript Draft--

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Order of Authors:	Cara Bailey, PhD, RN
	Shelly Orr, MSN, RN
	Alistair Hewison, PhD, RN
	Marianne Baernholdt, PhD, MPH, RN
Order of Authors Secondary Information:	
Abstract:	Background: Teaching nursing students how to provide patient-centered end-of-life care is important and challenging. As traditional face-to-face classroom teaching is increasingly supplanted by digital technology, this presents opportunities for developing new forms of end-of-life care education. The aim of this paper is to examine how a 'global classroom' was developed using online technology, to enhance nursing students learning of end-of-life care in England and the United States. Method: The Plan Do Study Act (PDSA) quality improvement approach was used to guide the design and delivery of this curriculum innovation. Results: The global classroom enhanced the educational experience for students. Teaching needs to be inclusive, focused and engaging; the virtual platform must be stable and support individual learning; and learning needs to be collaborative and authentic. Conclusion: Our findings can be used to inform the integration of similar approaches to end-of-life care education in other healthcare professional preparation programs.
Response to Reviewers:	Response to Reviewer comments for JNE-2017-002R1

Reviewer #1 Comment: The author describes the use of PDSA cycle to plan and evaluate a "global classroom" addressing learning around end-of-life nursing care. The manuscript is well written, nicely organized and is relevant to nurse educators in the US as well as other countries.

Response: Thank you for your positive comments about the paper.

Reviewer #1 Comment: My one recommendation is that the author clearly describe the purpose of the educational innovation paper. Is it to talk about the use of PDSA in the development of educational innovations? Is it to evaluate the use of a "global classroom"? or is it to talk about teaching and learning focused on EOL nursing care? These are all a component of the paper and interesting, but in the abstract and in the text of the paper I kept coming back to what the overall purpose of the manuscript is. I think to include a clear purpose statement and then to ensure that the rest of the paper aligns with that purpose would be very helpful.

Response: Thank you for this helpful comment. We tried to cover a lot of ground in the paper which was necessary to provide an accurate account of the development and delivery of the 'global classroom'. However, if this has resulted in the overall purpose being unclear, this was clearly not our intention. Thank you again for bringing this to our attention. In view of this, we have made a number of changes to address this concern which we hope have improved the paper (please see below). All substantial changes in the text are in red.

Abstract lines 15-18: A statement has been included here to emphasise the aim of the |

paper which is to examine how a 'global classroom' was developed using online technology, to enhance the learning of nursing students in end-of-life care. It presents an account of how this initiative was managed to demonstrate its potential for implementation more widely.

Abstract lines 20-22: A change has been made here to highlight that the development of an understanding of cultural competence in end-of-life care, on the part of the students, was a focus of the work.

Paper lines 74-79: A new paragraph has been added here which makes a clear statement about the purpose of the project: to address the policy (identified in the preceding section); to demonstrate how cultural competence can be developed using this educational approach; and to provide an account of the 'global classroom' initiative that may be helpful to others.

Paper lines 108-110, 123-126, 169-170, 196-198: Additional statements about the focus on cultural competence have been made here to clarify this aspect of the paper.

Paper lines 223-226: The final section of the conclusion has been amended to re-emphasise the overall purpose of the paper.

Manuscript

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6 **Learning About End-of-Life Care in Nursing – A Global Classroom Educational**

7 **Innovation**

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Abstract

Background: Teaching nursing students how to provide patient-centered end-of-life care is important and challenging. As traditional face-to-face classroom teaching is increasingly supplanted by digital technology, this presents opportunities for developing new forms of end-of-life care education. The aim of this paper is to examine how a 'global classroom' was developed using online technology, to enhance nursing students learning of end-of-life care in England and the United States.

Method: The Plan Do Study Act (PDSA) quality improvement approach was used to guide the design and delivery of this curriculum innovation.

Results: The global classroom enhanced the educational experience for students. Teaching needs to be inclusive, focused and engaging; the virtual platform must be stable and support individual learning; and learning needs to be collaborative and authentic.

Conclusion: Our findings can be used to inform the integration of similar approaches to end-of-life care education in other healthcare professional preparation programs.

Keywords: Global classroom, End of Life Care, US & England, Digital Technology

Background

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34   Palliative care, which includes end-of-life (EOL) care, helps those with advanced,

35   progressive, incurable illness to live as well as possible until they die (U.S. National Library

36   of Medicine, 2016). Part of good EOL care is advance care planning, which is enabling

37   people with a life-limiting illness to make decisions about their care preferences (National

38   Hospice and Palliative Care Organization, 2016). High quality EOL care is patient-centered

39   (National Quality Strategy [NQS], 2014). An important consideration when teaching students

40   how to provide person-centered care is the development of students' cultural competence

41   through knowledge building, and acquisition of appropriate attitudes and behaviors (Riner,

42   2011). Cultural competence has been defined as "the capacity to provide effective healthcare

43   taking into consideration people's cultural beliefs, behaviors, and needs" (Papadopoulos,

44   2003, p. 5). Teaching nursing students about cultural considerations involved in EOL care in

45   order to promote patient-centeredness although challenging, is important because education

46   can have a direct and positive effect on students' attitudes towards care of the dying (Bailey

47   & Hewison, 2014). However, to be effective, the educational delivery needs careful

48   consideration.

49   The pedagogical environment in higher education is rich with digital learning

50   opportunities (Lock, 2015) and there has been an increase in the availability of e-learning on

51   mobile and tablet devices. Students also have access to an array of asynchronous digital

52   technologies which can support independent learning (e.g. virtual discussion forums and e-

53   learning packages) and synchronous technologies which can be used to engage in learning

54   with others remotely (e.g. expert lectures via videoconferencing) which support current

55   teaching practices. It has been argued that this represents a "paradigm shift in educational

56   thinking" (Murgatroyd & Couture, 2010, p. 20), contributing to the development of a "new

57   culture of learning" (Thomas & Brown, 2011, p.17).

Although the potential of digital technology to enhance learning is acknowledged (Thomas & Brown, 2011), its application does not guarantee learning or collaboration (Larusson & Alterman, 2009). Educators therefore have to consider how best to integrate learning technologies in the curriculum in order to engage students and deliver high quality education. Following publication of the End-of-life Care Strategy in England (Department of Health, 2008), the content focussed on EOL care in undergraduate nursing curricula has increased (Bailey & Hewison, 2014). Although there is no direct equivalent national strategy in the United States (US), the End-of-Life Education Consortium (ELNEC) project is a national education initiative with a goal of providing nurses with the knowledge and skills they need to provide care that has a positive impact on the lives of patients and their families at the EOL (American Association of Colleges of Nursing [AACN], 2016). Furthermore, a recent landmark study recommended that educational institutions, credentialing bodies, accrediting boards, state regulatory agencies, and healthcare delivery organizations in the US establish appropriate training, certification and/or licensure requirements to strengthen palliative care knowledge and skills of all clinicians who care for individuals with advanced serious illness who are nearing the EOL (Institute of Medicine [IOM], 2014). In recognition of this combination of factors, an educational intervention was designed that would address the overarching policy need, by focussing on a key element of person-centered care – cultural competence. In order to manage this effectively, an established service improvement model was used. The overall aim was to develop a 'global classroom' using online technology, to enhance the learning of nursing students in EOL care.

Educational Innovation

The global classroom project was designed to enhance the educational experience of nursing students and expand their knowledge of person-centered EOL care. The Plan Do Study Act (PDSA) method was used to structure the work. The elements of the tool include:

83   **Plan-** the change to be put in place, predict what will happen and identify data to be

84   collected; **Do-** implement the change collecting the necessary data; **Study-** consider the data

85   collected before and after the change; and **Act-** identify further changes needed based on

86   study phase to continue improvement (Langley et al., 2009; Kilo, 1998). The underlying

87   rationale of the approach is that short-cycle, small-scale tests, linked to reflection, can enable

88   healthcare teams to learn from actions taken and their effects (Berwick, 2003; Iles &

89   Sutherland, 2001). It is recommended as a helpful tool in healthcare (National Health Service

90   Improvement, 2010; Scoville, Little, Rakover, Luther, & Mate, 2016) and widely used as it

91   provides a framework for collaborative working (Boaden, Harvey, Moxham, & Proudlove,

92   2008).

93   **Plan: The Global Classroom**

94   A global classroom is where two or more groups of students work together (in this

95   case from two countries) to study a common topic (Nelson, 2008). A number of design

96   principles for the global classroom were considered. Manso and Garzón (2011) suggest four

97   components are essential in the development of effective collaborative global projects. They

98   are: (1) The **topic** needs to be relevant and connected to the core curriculum/discipline; (2)

99   Integration of **information and communications technology (ICT)**; (3) **Collaboration**

100   which implies a commitment to learn together and to co-operate in the achievement of

101   something that cannot be achieved individually; and (4) **Exchange** of information to allow

102   the activity to advance with clear criteria that specify the nature of student participation

103   (Manso & Garzón, 2011).

104   The project team considered each component when making decisions and planning

105   the structure and delivery of the global classroom. Advance care planning was identified as a

106   crucial process in EoL care that the students could explore in classroom lectures and group

107   activity. It was selected because it is central to practice, incorporates consideration of cultural

108   competence as part of person-centered care, and was consistent with the learning outcomes at

109   both universities. With the assistance and support of Information Technology (IT) staff at

110   both institutions, virtual platforms were chosen that were reliable, user friendly, and allowed

111   for asynchronous and synchronous collaboration. Lastly, a group activity was chosen that was

112   achievable in a short timescale, realistic in terms of workload so as not to overburden the

113   students, and purposeful in terms of developing their learning. The expectations in terms of

114   student participation, professionalism, and peer communication were clearly delineated in a

115   supporting document provided for both groups.

116   Three synchronous classroom sessions were planned over a six-week period using

117   Zoom™. Zoom is an innovative web-based conferencing system that allows for video, audio,

118   and screen sharing capabilities (Zoom Video Communications, Inc., 2016). The first session

119   planned was an introduction where students and faculty could meet, and a technology check

120   for proper functioning could be undertaken. Students were required to view films produced

121   by the faculty team which summarized the English and US healthcare systems prior to the

122   scheduled introduction session to provide necessary background information. The second

123   session was a joint lecture from faculty at both sites on advance care planning, highlighting

124   the differences between the approaches in the US and England particularly with regard to

125   cultural competence. Finally, the third session was an interactive discussion about the movie

126   Wit, specifically the patient's experience of EOL care and the roles of members of the

127   healthcare team. Palliative care clinical colleagues from both sites were invited to contribute

128   to the discussion along with the faculty. Additionally, the students were asked to organize

129   two 'virtual' small group meetings s to work synchronously on a group activity (an e-

130   resource on advance care planning for patients and families). Each group included

131   participants from both countries who were able to connect using Slack™. Slack is a

132   messaging application that allows group members to create channels for conversations, both

133   synchronized and archived, and share files (Slack, 2016). Seventy-five students from the US

134   and 54 students from England participated. This planning provided a firm basis for the next

135   'do' phase of the project.

Do: Global Connections

137   The global classroom brought together experts in EOL care from the US and England

138   to provide undergraduate nursing students in the two countries with a unique learning

139   opportunity. During the course of the project, the students built a relationship with the

140   lecturers from both countries as well as with their peers. In the Slack channel project groups

141   there was a sense of camaraderie and comments indicated that learning about different

142   healthcare systems as well as differences in nursing education in the two countries occurred.

143   The students commented that they enjoyed working 'together'. All of the groups produced an

144   electronic resource on advanced care planning. These took the form of blogs, infographics,

145   leaflets, webpages, and e-presentations. These outputs indicate that the global classroom was

146   purposeful and had significance for student learning.

Study: Evaluation and Limitations

148   As with any change, evaluation of the global classroom was important in order to

149   make any modifications necessary to improve the quality of the learning experience for

150   students and to integrate this approach into the curricula at both institutions on a permanent

151   basis if it was found to be effective in enhancing learning. Since this first offer was a

152   feasibility study, most attention was given to the logistics. We evaluated whether the content

153   was placed in the right place in the two curricula, if the information technology (IT) platform

154   was 'fit for purpose', if the students were able to participate in both the synchronous

155   classroom and the group work, and if their group assignments were meaningful.

156   We collected feedback from students via email and personal conversations. Overall,

157   the feedback received was positive and suggestions for improvement corresponded with areas

158   identified by the project team. Students commented on the difficulties presented by different

159   time zones and working patterns making it challenging to meet up virtually to work on the

160   group activity, however the majority of comments were positive:

161   *"It was definitely a challenge being busy students working with other busy students across*

162   *the world, but I love the idea of the program and it was neat to learn about another country*

163   *and their nursing processes."*

164   Although we focused our efforts on ensuring students knew how to connect via Slack,

165   their schedules were also a limiting factor. There were further issues with the synchronous

166   global classroom as the first one was cancelled due to a snowstorm in the US. This limited

167   the time available for the students to meet each other and familiarize themselves with the

168   global classroom before they were taught some of the more difficult areas of EOL care (e.g.

169   discussion of cultural sensitivities) and so engagement of students was delayed. At times both

170   the faculty and students felt there was insufficient time to reflect on content, learning, and

171   development of next steps in depth. Despite this, the reflective comments were positive. For

172   example, after the first session students said:

173   *"I am quite excited about working with [the US University]. I think this is a great opportunity*

174   *and cannot wait to see the differences".*

175   *"I'm greatly looking forward to this opportunity as I am interested in the US and really*

176   *appreciate the hard work you have put in to making this a reality".*

177   **Act: Plans for the Next Global Classroom**

178   The global classroom is a beneficial educational innovation that can be incorporated

179   into the curriculum with careful planning. Based on our evaluation, in future iterations, the

180   global classroom will be delivered using a cumulative approach. Instead of having all content

181   on EOL care in one course at each university, we will deliver the content over three semesters

182   and three courses. We plan to have an introductory session in semester one, a second session

183   in semester two, and a third session in semester three. We hope this will afford the students

184   time to digest content and to get to know each other better in the activity peer groups which is

185   what they enjoyed the most. Further, the EOL care content will feel more like an integral part

186   of the respective educational programs that provides consistency and constancy as a whole

187   rather than being viewed as an additional project in one course. We are also exploring how to

188   expand the global classroom to include students from the wider healthcare team; for example,

189   students from medicine and the allied health professions.

                                                    Discussion

191   The intention of engaging in a detailed planning process was to try and ensure that the

192   global classroom was based on sound educational principles and that the complex logistical

193   challenges involved in delivering the experience were addressed. We considered four

194   components in the planning stage in order to engage students and promote inclusive learning

195   in a global context. First, the topic needs to be engaging, and appropriate for all students. The

196   focus on EOL care, and specifically cultural competence as part of advance care planning,

197   was appropriate because it was an issue of concern for both groups of students. Second, the

198   virtual platform has to be stable but flexible enough to meet the requirements for learning

199   such as easy uploading of documents, sharing views of documents, and enabling virtual

200   discussion to foster student cohesion. Zoom worked successfully for the virtual links for the

201   classroom activities and Slack was an ideal platform for the group work as it enabled students

202   to work together in small groups, share ideas, and learn from the experiences of their peers.

203   Third, collaboration was key to the success of this project which involved 129 students.

204   Having 'buy in' from the universities, other faculty, and students was essential as was the

205   expertise of subject and technology specialists. Also, regular and frequent communication

206   between faculty was important. Fourth, the group activity had to be purposeful and

207   achievable. All groups produced e-resources on advance care planning and feedback was

208   positive in terms of international linking and learning opportunities (Examples:

209   https://endoflifecaresite.wordpress.com/, https://prezi.com/3aa8mkdhgpwr/advanced-care-

210   decisions/). The development of cultural competence was apparent in the e-resources

211   produced, as demonstrated by those that focused on the individualized needs of patients and

212   their families. For example, one group created a google document highlighting the issues

213   involved in agreeing to a 'do-not-resuscitate' order as part of EOL decision making (Figure

214   2).

215   **Conclusion**

216   In summary, the global classroom was a success, but to increase its impact in the

217   future we plan to deliver the global classroom over three semesters. We have witnessed the

218   value of using a global classroom in that students are able to learn much more when

219   international perspectives and the associated discussion of different cultural contexts are

220   incorporated into their learning. The PDSA cycle was useful as were the four components of

221   an effective collaborative global project. Lessons learned can inform others to use our work

222   as a framework when designing and implementing a global classroom. Our hope is the use of

223   a global classroom approach to teach concepts that are central to EOL care, such as advance

224   care planning and cultural competence, will become part of educational programs in

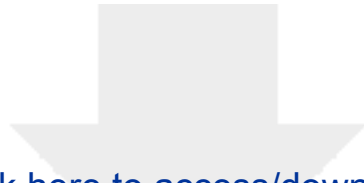225   healthcare to enhance learning in an international context.

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