EXPERIENCE EXCHANGE

The development of a European elearning cultural competence education project and the creation of it's underpinning literature based theoretical and organising framework

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ABSTRACT

The EU have set standards in relation to cultural competence, and findings from previously funded EU commission projects have illuminated an extensively developed body of knowledge in this area in relation to healthcare. Evidence from contemporary literature shows that education interventions have a positive impact on the cultural competence of health care professionals. Nonetheless, short accessible resources that can be used flexibly to support teaching and learning around cultural competence are not available across many European countries. The aim of the TransCoCon (2017-2020) project has been to develop innovative accessible multi-media learning resources to enable undergraduate nursing students and registered nurses in five countries to develop their cultural self-efficacy and cultural competence for nursing. The purpose of this paper is to describe and discuss this European ERASMUS + funded strategic partnership project (TransCoCon 2017-2020) and the creation of its underpinning theoretical and organising framework. The rationale for this guiding framework will be discussed within the context of supporting literature.

Key Words: Cultural competence, Transcultural nursing, Multimedia educational resources, Reusable learning objects, Social learning, Communities of practice, ERASMUS+ funded projects, Undergraduate nurse education

1. INTRODUCTION

Horvat et al. (2014) education intervention framework has been adopted as an organising framework to underpin the project's design (see Figure 1). The educational content of the project was guided by the cultural competence development model devised by Garneau and Pepin's (2015)

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(see Figure 2). International Competency standards, Nottingham's university's ACCESS model and findings of other European projects have also informed the learning content. The pedagogical methods are grounded in the educational theory of Social learning and communities of practice theory. The structure of the intervention will result in the creation of five Reusable Learning Objects RLO. These multimedia resources will be online and openly accessible to undergraduate and qualified nurses across the globe. The RLO development will be supported, disseminated and, evaluated by the five partner organisations in Ireland, Great Britain, Germany, Belgium, and Portugal.

2. Background of the project

In September 2017 an ERASMUS+ funded strategic partnership (TransCoCon, 2017)[1] comprising of five European countries – Belgium, United Kingdom, Germany, Republic of Ireland and Portugal was initiated. The project aims to develop innovative accessible multi-media learning resources to enable undergraduate nursing students and registered nurses to develop their cultural self-efficacy and cultural competence in transcultural nursing.[2] The project will contribute to the domain of transcultural nursing which is a specific body of knowledge that helps nurses to deliver culturally congruent care. Transcultural nursing and the cultural competencies therein aim to ensure that holistic, beneficial, and appropriate nursing care is provided to people from diverse cultures.[3] It is believed that nurses who possess cultural self-efficacy will be well-positioned to deliver culturally competent client care, individually and as a member of an interdisciplinary team.[4]

Like many other developed economies, Europe is becoming increasingly culturally diverse. Health care providers across Europe are commonly encountering clients from other European Union (EU) states. The EU founding principle of Freedom of Movement of its citizens across its member states has in some way facilitated and encouraged the movement of its European citizens. Citizens of member states can live and work in other member states across Europe without accessing visas.[5] Notwithstanding the mobility of people across Europe there is also a growing migration of people across the globe, this is due to a diversity of socio-economic and political reasons. The resulting effect of this global migration has led to a multicultural health service workforce and nurses caring for a diversity of ethnic groups from culturally and linguistically diverse backgrounds.[6] It is widely accepted that health disparities exist in ethnic minorities; however, the provision of culturally competent health care can help address these disparities.[7] Some systematic reviews have found that culturally competent health care providers can impact positively on the quality of care provision and patient outcomes.[8–10]

Health care professionals are expected to be culturally competent; this is a standard required by accreditation processes of global healthcare organisations.[10] Cultural competence is now incorporated in the education of health care professionals internationally.[10–12] It is accepted that education alone may not make a nurse a culturally competent practitioner, but education should challenge and provide the student with a safe space to engage in supported critical self-reflection. This developmental process can assist them progress through the stages of cultural awareness, knowledge, and sensitivity. The core values for cultural competence of inclusivity, respect, valuing differences, equity, and commitment can be fostered. This project provides an interactive international open accessible educational medium that will promote these values and stages of cultural competence and contribute to student and qualified nurses evolving cultural competence.

The paper describes the development of the Transcultural Collaboration and Competence in Nursing Project.[1] The project applied Horvat et al. (2014)[10] education intervention framework to describe its structure and underpinning theoretical foundations (Figure 1). The concepts within this framework are described and examined in the context of the literature under the following headings; cultural competence development model; Cultural competent nursing knowledge and practice in the European Union; Educational content of the Multimedia resource; Educational interventions and Cultural competence; Educational theory underpinning the project; Educational intervention and participants; Reusable Learning Objects.

3. Cultural competence development model

There is no unified definition of cultural competence in the literature; the concept has evolved. Dr Madeleine Leininger, a nurse theorist, was the first individual to identify this concept for nurses.[3] It focuses on classifications such as cultural awareness, cultural security, cultural respect, and cultural safety. Cultural competence is considered to go beyond the individual practitioner level to the organisation and wider health care system.[14] This competence is viewed as a developing learning process in the affective, cognitive, and psychomotor dimensions.[15] The term "cultural competence" is made up of two distinct concepts and very often different importance is placed on either element depending on the researcher's foci and its intended use. When competence is the focus, the attributes of competence tend to be described as skills, knowledge, and sensitivity and, conversely when

culture is the foci, issues such as values and beliefs are more explicit.[16] A recent systematic review by Alizadeh and Chavan (2016)[15] found that cultural competence has been translated into many frameworks or models, the majority of which emanate in the United States. Interestingly the dimensions of the models are similar regardless of their context within healthcare or business. The three most recurring components of these models are cultural awareness, cultural knowledge, and cultural skills and behaviour. Cultural desire or motivation and the cultural encounter or interaction are also present in some models. Almutairi et al. (2015)[17] introduces another component that is critical empowerment. They claim if the practitioner is empowered, they can recognise cultural differences and power imbalances in the healthcare context. This empowerment and enlightenment create the opening for them to exert their agency as a practitioner to advocate for and empower the person they are caring for (Almutairi et al. 2015).[17] The models and definitions of cultural competence presented in the literature are mostly emanating from concept analyses and literature reviews. Systematic reviews would suggest that the limitation to these models is that the majority have not been subjected to sufficient empirical testing.[15,16]

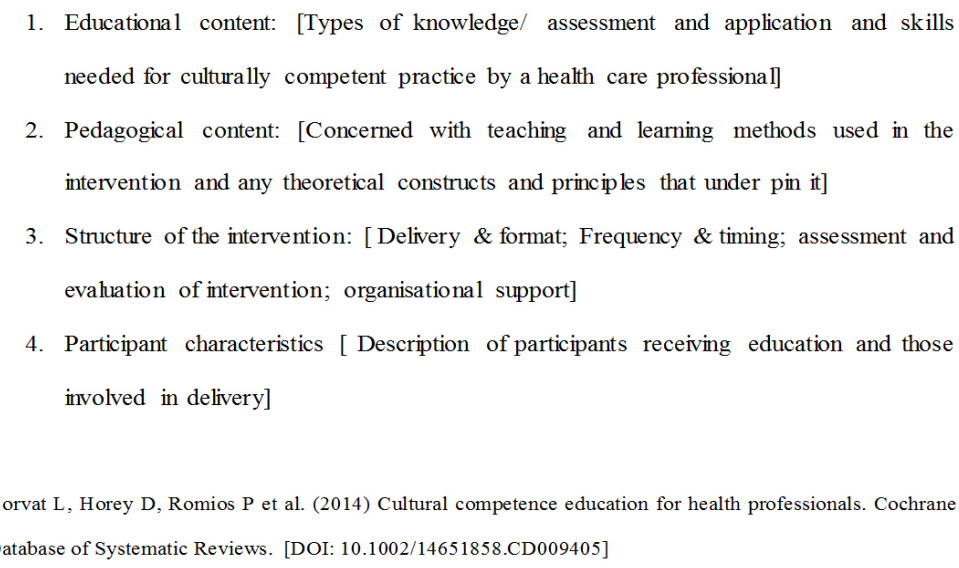

Figure 1. Cultural compatence education for health professional's conceptual framework (Hprvat et al. 2014)

The project required a suitable model of cultural competence to guide the content of the educational intervention. The project team following a review of the models chooses Garneau and Pepin's (2015b)[18] "Cultural competence development in nursing model" as it was deemed the most appropriate. It was the only model found that presented the developmental stages of cultural competence, which aligns well with the profession's understanding of the dynamic nature of competency attainment.[12] The researchers (Garneau and Pepin's 2015)[18] who developed this model used a grounded theory inductive research approach to identify the concurrent evolution of cultural competence (see Figure 2). The emergent model's core category was "learning to bring the realities together to provide effective care in a culturally diverse context". Cultural competence encompassed three domains; Building a relationship with the other; Working outside the usual practice framework; Reinventing practice in action.

These three domains are delineated at three different levels of cultural competence from level one where the learner has an openness to cultural diversity, level two the learner challenges one's practice to level three where the practitioner is practicing in an integrated way. This model describes competence attainment as a development dynamic process. The multifaced nature of cultural competence is presented in this model.

The key components are the unique identity of nurse and patient, the cultural experiences or triggers that are necessary for learning, the continual need for reflection and actions required to advance through the levels of competence (see Figure 2).

Given the focus of the project, this model offers an appropriate conceptual underpinning. The outcome of the project is to develop innovative accessible multi-media learning. These learning objects will offer the trigger experience described in this model. The multimedia learning will challenge the student to examine and reflect on the three core concepts; relationship building; working outside their usual practice and reinventing their practice. This will occur through the

scenarios and exercises that they will work through. The overall aim will be to expose the students to different realities of practice and to challenge the student's nurse's view of practice in a culturally diverse context. This learning can then be combined in an integrated way within the students' practice in their own culturally diverse environments. Thus, there is potential that learning may occur at all three levels on a metacognitive level, hence adhering to the model design.

4. Culturally competent nursing knowledge & practice in the European Union

The European Union has indicated through the support of several projects and Directives their commitment to facilitating the development of a culturally competent health care workforce. From a nursing perspective, in 2013 the European Commission (2013)[19] adopted an amendment to the 2005 Professional Qualifications Directive. The directive now includes a set of eight competencies, which are the minimum educational registration requirement for nurses within the EU. The first of these competencies is Culture Ethics and Values, of which cultural competency is an integral component. The amended Directive is legally binding and had to be implemented by all Member states by January 2016.[19] The EU's position where cultural competence is an entry to practice level competence for registered nurses is mirrored in other developed countries such as the USA, Canada and, Australia (NMBA, NNAS, NCSBN).

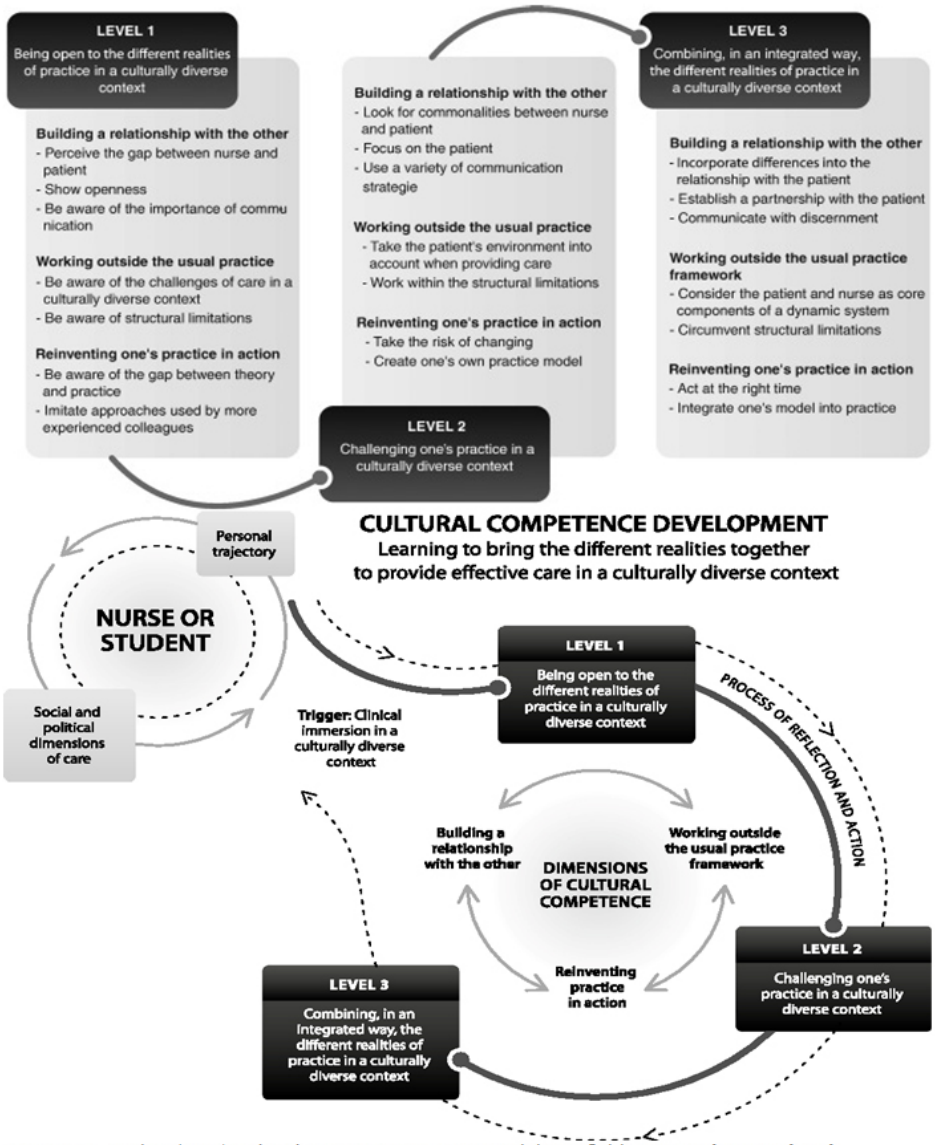

Figure 2. Cultural competence development model@ Blanchet Garneau (2013)

The EU has funded projects, which examined the concept of cultural competence in nursing practice. The European Curriculum in Cultural Care Project (2005-09) devised a curriculum framework that identified cultural competence as an ongoing process of personal growth and development which is enabled through the development of cultural awareness, knowledge, and skills. The framework and project outcomes provided useful direction for educators about teaching strategies to support cultural competence education within the EU.[20] The members of the current TransCoCon project team participated in the Training Requirements and Nursing Skills for mobility EU project TRaNSforM (2007-2010).[21] The outcome of this project was the development of a skills escalator framework to enable nurses to identify their specific training requirements to facilitate their mobility across the member states. Some of the skills found to be essential to international mobility were self-efficacy; preparedness; open-mindedness; adaptability; creative thinking; proficiency in language; professional competence; communication and empathy (TRaNSforM 2010-1-GB2-LEO04-03729-5).

The Intercultural Education of Nurses in Europe (IENE1, IENE2 & IENE3)[?][22] projects are further evidence of the EU's commitment to supporting culturally competent care provision within the Union. The first IENE project sought to explore the perceived learning and teaching needs of health care students and practitioners concerning different cultures within different cultural settings. This project clearly identified educational preparation was required for EU practitioners in relation to cultural competence. It recognised the need for educators to provide a safe environment for students to practice intercultural skills. This enables students to learn about other cultures and explore and respect differing values and beliefs.[23] The IENE2 project led to training the trainer programs.[24] IENE 3 developed learning tools aimed at promoting the skills and qualities of competence compassion, courage, and intercultural communication.[13] The current project team will incorporate the learning, outcomes, and recommendations of the above projects in the implementation of the current project.

5. Educational content of the multimedia resources

Garneau and Pepin's (2015)[18] model as discussed earlier provided the conceptual basis for the educational content of the multimedia resources created in this project. It recognises that cultural competence is not absolute but is an evolving dynamic process that requires lifelong learning and reflection.[25] Key sources will guide and inform the content to foster this learning and competency development. The outcomes of the EU projects: TraNSforM (2010-2012) and IENE projects (Taylor et al. 2011)[23] will also inform aspects of the content. Also, Narayanasamy's, (2002)[26] ACCESS model will direct the content on intercultural nursing. The standards for practice for culturally competent nursing care devised by Douglas et al. (2011)[27] will help to focus the learning outcomes and therein inform the content. The applicability of the ACCESS model (Narayanasamy, 2002)[26] and the Standards for practice for culturally competent nursing care (Douglas et al. 2011) are now discussed.

Narayanasamy, (2002)[26] developed the ACCESS model as an outcome of a study exploring nurse's practices concerning transcultural care. Questionnaires with both quantitative and qualitative questions were completed from a sample of registered nurses in the UK (N = 126). Respondents reported that cultural care was important. The main cultural needs that were identified and believed to be met were religious, dietary, dying, and personal care needs. Further education was desired in meeting the more holistic cultural needs of patients. While the findings of the study are useful, they are limited by the small sample size and self-reporting nature of the study. However, the outcome of this study leads to the development of ACCESS model which is currently used to underpin undergraduate cultural nursing education at the University of Nottingham. The central components of this model are the cultural assessment of the patient, cross-cultural communication; cultural negotiation and compromise; building respect and rapport; cultural sensitivity and ensuring cultural safety. Narayanasamy, (2002)[26] claims that using these concepts as a foundation of knowledge participants can become agents of change in terms of intercultural nursing care and can develop their cultural competence. This outcome is consistent with the TransCoCon project's aims.

Douglas et al. (2011)[27] developed a set of twelve universally applicable standards of practice for culturally competent nursing care. They centre on the concepts of social justice and critical reflection, cultural knowledge, patient empowerment, and advocacy. Two core standards applicable to the project's aims are practitioners who have developed culturally sensitive skills and cross-cultural communication competencies. The holistic nature of competence is addressed within the standards in the expectation of cross-cultural leadership; cultural competence health organisations, systems, and multicultural workforces. Standards are out concerning the provision of education training and research to support competence in practice. These standards emanated from the interrogation of over 50 relevant policy documents from governmental agencies, the World Health Organisation, global nursing organisations, and a critical review of the literature. They serve as guidelines and are used globally to guide care delivery, education, research, and administration. Hence,

the project's educational resources are informed by these international standards.

6. Education interventions and cultural competence

Cultural competence education in the past has often focused on promoting categories of differences such as identifying the specific stereotypical needs of specific ethnic groups which leads to segregation and misunderstandings. Contemporary educational approaches promote the outcome of intercultural integration where nurses are competent to practice in a variegated health care landscape in which many cultures will co-exist accessing the one health service.[13]

The cultural competence of undergraduate nursing students has been explored at various juncture points globally. Mixed results have emerged with students stronger in some dimensions of cultural competence than others. Factors such as gender, age, country of origin, the experience of caring for culturally diverse patients, and being a first-generation immigrant year of study can all impact on student's cultural competence.[28–30] Several educational interventions have been deployed ranging from lecturers, workshops, discussion groups, clinical experience, mentorship and consultation, freestanding courses, cultural immersion programs, and simulation.[31,32] Some of the educational interventions target the totality of the concept whilst others address a dimension of it such as cultural awareness.[33] The educational interventions span a continuum from simple/reductionist approaches that focus on cultural facts and adopt a do and don't approach to more culturally holistic person-centred approaches which promote a breadth of thinking and reflection. The latter approach challenges healthcare professionals to consider their values and beliefs and encourage self-awareness. This type of education encourages participants to appreciate factors beyond the practitioner and clinical level to the organisational and structural level.[34]

Educational interventions have been found to have a positive impact on students' cultural competence.[31–33] A recent systematic review (Gallagher and Pulanan, 2015)[34] of twenty-five studies deploying education interventions to enhance cultural competence found that regardless of the intervention, cultural competence increased in all but four studies. However, the effectiveness was variable and led to the conclusion that many interventions required improvement to further promote cultural competence. A Cochrane systematic review and other research have reported that educational interventions improve the knowledge skills and attitudes of health care professionals.[10] Some limited evidence also exists about positive patient outcomes such as adherence to treatment, frequency of hospitalisation, and enhanced trust in health care providers.[35–37]

Hovart et al. (2014)[10] Cochrane systematic review assessed the outcomes of cultural competence educational interventions a significant finding of this review was the need to develop a conceptual framework to examine the research studies. They recommended that cultural-educational interventions within research studies should be described in more detail. They propose an organisational framework of four key domains that capture cultural competence education interventions. They are educational content, the pedagogical content, the structure of the intervention, and participants' characteristics (Hovart et al. 2014, p8).[10]

Given the challenges suggested in the literature evaluating the effectiveness of educational interventions and to enhancing this project's transparency and to ensure standardisation of the education intervention across the partner sites, it is considered prudent to apply Hovart et al. (2014)[10] framework (see Figure1). It's four guiding principles will be applied. The educational content as outlined previously will encompass the following; understandings of Blanchet Garneau Cultural Competence Development Model (Garneau and Pepin's (2015)(see Figure 2):[18] the findings of previous EU projects; the Access Model and the standards for culturally competent nursing care.[27] The pedagogical content will be guided by Educational theory. The structure of the educational intervention will be the development of five Reusable Learning Objects (RLO). The participant's characteristics of those who are delivering the education are Nursing faculty across 5 partner European countries. Those receiving the education are undergraduate nursing students and Registered Nurses within these partners institutions and potentially globally. The educational theory underpinning the project and development of the educational intervention, the RLOs and participants, will be discussed further in the following paragraphs.

7. The educational theory underpinning the project

It is considered important that all cultural competence education is underpinned by educational or pedagogical theory.[10] Wenger situated learning theory and Communities of Practice is chosen to unpin this transnational educational project.[38–42] This educational theory offers a foundation where new learning partnerships are created, the project team is akin to a learning partnership. It provides learning activities for the student where new meanings and practices are constructed which is the overall aim of the project. The pedagogical approach is instructional scaffolding where the

teacher carries out such functions as engaging, focusing, questioning, shifting attention, giving direction on how to progress with the learning, bringing about co-ordination, supporting memory, and reflection in learners.[38] It is the intention to use these principles in developing the digital content, structure, and organisation of the RLOs.

Communities of practice are learning partnerships where there is mutual recognition of each other's contribution and participation in the learning goal.[41] Wenger et al. (2009)[40] used the term "deep divers" to explain how communities of practice can deeply explore how to use practical situations in both ideal and problematic scenarios to foster learning and reflection using technology. The TransCoCon project team is similar to the notion of Wenger's "deep divers" as they will explore the connection between the use of technology, in this case, RLOs, and transforming students' learning in the domain of transcultural competences and cultural awareness.

Communities of practice theory accept that contradictions in practice naturally exist; that meaning is constantly negotiated through reciprocal learning within the practice; that knowledge is socially constructed and continually interacting facilitating the transformation of practice.[42] The project team from the five partner countries can be likened to a community of practice coming together with professional nursing standards, clearly identified cultural competencies and, recognised theories, however, social and cultural interpretation of these concepts differ from country to county. Through the practise of collaboratively devising the RLOs, meaning will be negotiated among the team members, new meanings and learning will emerge facilitating a transformation of the project members' practice and understandings of transcultural nursing and cultural competence. It is the aim of this project that the RLOs will be present the learner with a similar task and they too will engage and negotiate the meaning presented within the RLO's and apply this to their own professional and cultural context.

In the creation of the RLOs, the team will provide a learning platform where the student will reflect on core values. This has the potential to contribute to the development of the students' professional identity about transcultural nursing and a motivation cultural competency. The overriding goal of the RLOs is that learners who engage with the RLOs will become motivated to develop an identity that incorporates transcultural nursing and cultivate cultural competencies within their communities of practice. Wenger's theory (Lave and Wenger, 1991 Wenger, 2007, 2010; Wenger et al. 2009, Wenger–Traynor and Wenger-Traynor, 2015)[38–42] offers guidance in the development of digital teaching and learning strategies. It will also foster a participatory inclusive approach to the development of RLOs and prevent each partner from presenting an ethnocentric cultural view of nursing practice.

8. Educational intervention; Reusable Learning Objects & Participants

Teaching methodologies that employ interactive e-learning methods are evolving in line with the technological age nurses are practicing in. Digital learning is attractive to the millennial student as it enhances access and offers flexibility.[43] A recent systematic review involving 50 studies deploying a range of Information Communication Technology (ICT) interventions in undergraduate nurse education programs found significant value in using online learning. The evidence indicated that students were found to be receptive to online and electronic learning media. Benefits reported included an improved learning environment and an increase in teaching and learning efficiencies.[44] Participants who engaged in an online cultural competence educational course evaluated it positively in the areas of learner support, peer support, flexibility, and content.[13]

The TransCoCon project proposes to design, develop, test, implement, and disseminate five interactive multimedia RLOs using the participatory approach previously described. Multiple types of Open Educational Resources (OER) have been proposed over the years such as Virtual Patients, Reusable Learning Objects, e-compendiums, MOOCs, and others (Bamidis et al. 2008; Konstantinidis et al. 2009; Foss et al. 2013; Antoniou et al. 2014),[45–48] while mechanisms and repositories for sharing such resources have been also proposed and implemented.[49] Online OER can be met in different formats, such as big courses, attracting either large audiences seeking general knowledge, or dedicated specialised learners, with resources included in curricula. OER can also be small in size, either interactive or pathetic. RLOs are a form of OER, which are self-contained user-friendly nuggets of information, which in this project will address practical cultural concerns and highlight best professional practice. Each resource or RLO represents about fifteen minutes of learning and focusses upon addressing a single learning goal or nugget of information. This may be used many times and in different settings.[50] The learning goals, content, and activities will be informed by Garneau and Pepin's, (2015a)[18] "Cultural competence development in nursing model", and other key sources as described earlier.[23,27]

The RLO's that will be created are openly access and can be used by institutions that cannot afford to technically or financially create such resources. They can be integrated into international undergraduate curricula or used as continu-

ous professional development resources for qualified nurses. RLOs are released under a Creative Common license which allows adaptation therefore they can be transformed to fit different purposes within different educational contexts.[51]

Many challenges have been identified in terms of RLO's value these have been considered at the outset of the project. The sustainability of RLO's is an issue that needs to be addressed.[52,53] The team has considered the mechanism of production in terms of cost and ensuring up-to-date content. A sharing mechanism has been identified with the development of a specific project website (https://www.transcocon.ac.uk/index.aspx and the use of Helm Open which is a highly accessible repository of RLO's (https://www.nottingham.ac.uk/helmopen/), Interoperability of the resources remain an open issue therefore a plan for online dissemination has been set out by partners to enhance their reuse element[46] Intellectual property rights (IPR) on digital assets can sometimes be a problem in the creation of the RLO's.[54–56] Therefore, clarity on IPR and copyright on works created during the project have been clarified by the institutions involved.[57] Quality assurance of the RLOs was addressed throughout the creative process; a participatory design is being employed. Learners became active participants as they both co-created the RLO.[58] An internal peer review procedure has been implemented. This will involve both student's user review and academic evaluation and critique. The RLOs will also be submitted to repositories (e.g. MERLOT, MedEdPortal, mEducator) to follow an open peer review process like research article publications. There will be also the social media 'evaluation' which is reflected in the decision of the individuals to use the five RLO's created as an outcome of this project.

RLOs have been widely used in the undergraduate nursing curriculum at the University of Nottingham one of the partners of the project. Multiple examples can be found at HELM Open (https://www.nottingham.ac.uk/helmopen/), a repository hosting RLOs developed the University experts over a 10-years period.[59–61]

The project partners and key stakeholders are involved in the design process. A series of workshops are held. Initially, the aim of the resource is broadly defined in a workshop to scope the project and to define a specific learning goal for the RLO. Next, the stakeholders storyboard the resource using a predefined template. Storyboarding involves the use of large A10 laminated sheets allowing the participants to identify the content and underpinning learning. The participants involved in the storyboarding process will be both undergraduate students from diverse cultural, linguistic, and ethnic backgrounds and academics from the five project partners' teams. Facilitators will be present in the workshops to provide guide if needed. These workshops can be repeated until the stakeholders are happy with the result.

The project academic team who have participated in the workshop write the specifications based on the storyboard in HELM in-house RLO specification creation tool. RLO specifications can include such items as a script of a video, or the text of a definition, a drop activity, or other educational content. The project team and students will peer-review the specification before the final product been created and published. This process will be guided by the social construction of knowledge within communities of practice.[39]

9. Conclusion and recommendations

The TransCoCon project is now in its final year. The project team worked collaboratively and applied its literature-based theoretical foundation in the development and design of the five RLOs. The understanding of cultural competence was informed by Garneau and Pepin's (2015)[18] model, the findings of other European projects (IENE 1,2,3, TraNSforM (2010-2012),[21] Douglas et al. (2011)[27] cultural competence standards, and the ACCESS model, (Narayanasamy, 2002).[26]

Hence cultural competence attainment was considered a dynamic process centering on the need for the nurse to be open to building a relationship with people from all cultures. This involved cross-cultural communication; cultural negotiation and compromise while building respect and rapport. Concepts such as cultural awareness, sensitivity, safety, knowledge, skills and behaviours, motivation, empowerment, and enlightenment were embedded within the RLO content and outcomes. Hence the educational content of all the RLOs were the guided these theoretical understandings of cultural competence and intercultural nursing.

The educational intervention was through the medium of the Reusable Learning Objects RLOs. RLOs provide virtual cultural experiences and scenarios that have the potential to act as triggers that allow for critical reflection, empowerment, and an opportunity to advance the learners' level of competency. The focus was not the particular cultural group difference presented but rather a learning catalyst that allows the participant to examine their cultural sensitivity awareness and competence. It is hoped that transferable learning would occur, and this learning would be applied to their interactions with people from all cultures different from their own. The design of and pedagogical methods used in the RLOs were underpinned by the educational theory of Wegner's situated learning and communities of practice theory.[41] This theory encourages the construction of knowledge and the

negotiation of meaning. Teaching methods within the RLOs involved the presentation of practical situations or vignettes where learning was directed by focusing, questioning, reflection, and supporting memory using multimedia strategies to maintain the student's interest and participation.

Three RLOs entitled "Cultural Competence in Cultural Mixed Teams"; "Disabling barriers and inhibitors and Empowering Cultural communication" and "Admission to Hospital" are completed and are uploaded on the HELMs website (https://www.nottingham.ac.uk/helmopen/). The remaining two RLOs are in their final stage of design. Each partner country leads out on the design of one RLO, however, all RLOs are developed collaboratively by all five partners and other key stakeholders. The RLOs are openly accessible internationally to all undergraduate and qualified nurses and educational institutions across the globe. These bite-size pieces of multimedia learning can be integrated into transcultural components of undergraduate and postgraduate curriculums or to continuous education programs for registered nurses. Their use is not intended to offer an entire program on cultural competence nor is it to cover the theory and practice of transcultural nursing in a complete fashion. It is recommended that these short learning resources can be integrated into programs flexibly. The RLOs can be used separately or together to offer reflective insights and triggers that can enhance the student's cultural awareness, sensitivity, and competence. Their uses within each partner institution and their dissemination will be further explored, evaluated, and reported in subsequent papers as the project progresses. The use of these digital resources has now become an essential teaching and learning strategies in all educational institutions due to the global COVID 19 crisis. It is recommended the theoretical and organising framework applied to the development of these multimedia resources could be adapted for use within other learning contexts.

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CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

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