The Development of a Palliative Care Massive Open Online Course (MOOC): Process and Perspectives of Instructors

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ABSTRACT-- Massive Open Online Course (MOOC) is an important higher education for developing countries that learners can access openly through the website. Palliative care course can enhance attitude, knowledge, and self-practice of the learners, including learning-teaching innovation... The objectives were to report the process of developing of MOOC for palliative care and views of instructors who developed the palliative care course. The stage explains the overviews of the design and development phases of MOOC for the palliative care course. The structure and teaching approaches were designed, including types of media based on the objectives, contents, and background of learners. Next, the outcomes from the design phase were used to develop the course over six months. The palliative care course will be tested in the implementation phase over ten weeks. Baseline measures will be collected before starting the palliative care course and preliminary outcomes data after the completion of this course. Thematic analysis of the instructor's diaries during the design and development phases identified three main themes: (1) Doubts and concern in MOOC (traditional teaching, benefits of MOOC); (2) Challenges to develop MOOC for palliative care (learning and teaching innovation, developing process of MOOC) and; (3) Overcoming barriers (social supports, problem solving approaches). MOOC is new trend in higher education in developing countries. It significantly increases open accessibility of learners and improves the effective teaching and teaching innovation in the 21st Century. The study demonstrated the process of conducting this course and experiences of instructors during the developing of MOOC for palliative care.

Keywords-- MOOC, Palliative care, Online teaching

I. INTRODUCTION

Massive Open Online Course (MOOC) is an important higher education for developing countries that learners can access openly through the website. It's challenging for use an interactive learning in the 21st Century [1]. MOOC is defined by the European Commission as "an online course open to anyone without restrictions (free of charge and without a limit to attendance), usually structured around a set of learning goals on an area of study, which often runs over a specific period of time (with a beginning and end date) on an online platform which allows interactive

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possibilities (between peers or between students and instructors) that facilitate the creation of a learning community. As it is the case for any online course, it provides some course materials and (self) assessment tools for independent studying"[2]. The concepts of MOOC help to bring together teachers and learners who are interested in online learning and facilitates them to freely access online courses, including contents and learning materials, and self-study anytime and anywhere through social networking [3]. This learning style has become a crucial role in nursing education, which facilitates learner to engage in the online nursing care course or caring course for people. The number of aging population is increasing continuously in both Thailand and the globally and is associated with a global health problem such as non-communicable diseases (NCDs): cardiovascular diseases, diabetes, hypertension, cancer, and others. Cancer and cardiovascular diseases are serious health problems that have been the significant leading causes of death. Palliative care has been developed to support patients and their families in continued caring and end-of-life issues [4],[5].

Palliative care is defined as "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification impeccable assessment and treatment of pain and other problems, physical, psychological and spiritual" [5]. Education and training if palliative care in Thailand has become a significant for healthcare professionals, healthcare providers and carers who guide and support patients and their families from diagnosis to death based on physical, psychological, sociological and spiritual needs [6],[7]. Globalization has impacted on learning style, learner behaviors and online resources, including time. Therefore, online courses can enhance attitude, knowledge, and (self) practice of the learners, including learning-teaching innovation of palliative care. The qualitative component in this study explored the experiences of the instructors who develop the MOOC for palliative care that enhances understanding and evidences during the design and development phases for the future. The objectives were to report the process of developing of MOOC for palliative care and views of instructors who developed the palliative care course. This study is the first part of the study on the impact of an interactive Massive Open Online Course model for palliative care courses on the learning achievement of students.

II.   METHODS

This section explains the overviews of the design and development phases of MOOC for the palliative care course. The structure and teaching approaches were designed including types of media based on the objectives, contents, and background of learners over three months. Next, the outcomes from the design phase were used to develop the course over six months. A target sample size is 250 students who will take part in the MOOC: Palliative care course. Ethical approval for the study was obtained from the Naresuan University Institutional Review Board (IRB no 0618/62), Naresuan University, Thailand. This study was conducted at the Faculty of Nursing, Naresuan University.

This study used a phenomenology qualitative research design. It can be integrated to explain and describe the ontological meaning and the experience of a particular group of people [8],[9],[10]. The qualitative component explored the experiences of two instructors on the development the MOOC: Palliative care through their diaries and reflection during the design and development phases of the MOOC. The qualitative approach was taken over two months. Thematic analysis was used to analyze latent and manifest data, including the contextual meaning from the perspectives of the instructor according to themes. The data were managed manually. The thematic analysis was

processed as follows [11],[12]. Firstly, the data were fully transcribed by the researchers and checked for accuracy with a consultant. Next, all transcripts were read and re-read several time to understand the meaning. The keywords were highlighted and compared for similarities and differences. The data were coded and grouped as themes and sub-themes. The accuracy of themes and sub-themes were then checked with the researchers and consultant based on the objectives of the study.

III.   RESULTS

The palliative care course was designed by researchers for nursing students and general people interested in palliative care, such as carers, nurse aids or practical nurses. The structure of the palliative care online course was conducted for ten learning hours (two hours per week). The course was divided into four chapters. The first chapter contains the concept of palliative care and palliative care in Thailand. The second chapter consists of health problem issues of patients and their families, the third chapter includes assessing requirement and assessing tolls for patients and their families and the last chapter provides the caring methods, continued caring and end-of-life issues based on physical, psychological, sociological and spiritual needs. The contents of each chapter were designed based on the evidence of palliative care [13],[14].

The online course was developed by researchers and an information technology (IT) support, which collaborated on types of media, sounds, pictures, video creation and editing, including completeness of online course. The development phase was created in three stages: course induction or course overview, contents and feedback in each chapter, and evaluation [1],[15]. The online course was accuracy checked by the consultant, who is an expert in palliative care nursing. In addition, the palliative care course will be tested in the implementation phase over ten weeks. Baseline measures will be collected before starting the palliative care course along with preliminary outcomes data after the completion of this course.

From the findings of the qualitative approach with two instructors: teacher 1 (age 40, maternal and newborn nursing), teacher 2 (age 41, community nursing), who participated in the MOOC: Palliative care, tThree main themes were identified as follows: (1) Doubts and concern in MOOC; (2) Challenges to develop MOOC for palliative care and; (3) Overcoming barriers.

The first theme: doubts and concern in MOOC, illustrated the attitude of instructors on the traditional teaching and online course. Traditional teaching is a common teaching and learning style in Thailand because the teacher faces students in the classroom. It is traditional behaviors of teachers and students that students sit on the chairs in classroom and teachers teach the contents by PowerPoint (PPT) or other means such as problem-based learning, seminar and conference [16], [17]. Instructors reflected that they did not know about the effectiveness of MOOC and traditional teaching. *"I am not sure about the MOOC because I think the traditional teaching is quite effective. We can face with our students, but the MOOC, I don't know how to teach them"(Teacher 1). "I feel traditional teaching is common and effective, but I am not sure about MOOC. I have not done it before" (Teacher 2).* The benefits of MOOC were concerned by the instructors. They expressed their experiences before they developed the MOOC that the MOOC might not work with their students based on the Thai traditional context. *"I am not sure about the benefits of MOOC, I think it might not fit with the Thai context"(Teacher 1).* They changed their attitudes about the benefits of MOOC when they perceived the learners could access the palliative care course anytime and anywhere they wanted. *"I think, the benefit of MOOC can help me to teach a lot of students at the same time. In addition, the students*

can access the course and review it when they want. I cannot do that if I want to teach them as a traditional teaching"(Teacher 2). Therefore, they think the benefits of MOOC can help them to teach learners effectively. It breaks out of the limit on time and increases freedom to learn for people.

The second theme, challenges to develop MOOC for the palliative care, identified the knowledge of instructors on the learning and teaching innovation and the development process of the MOOC. The instructors provided their experiences that the development of MOOC was challenging them to make learning and teaching innovation. They learned a lot about how to develop a MOOC: Palliative care course *"I try to do the best. I learn a lot and take more time to do that, but I think I can do it although It is quite new for me" (Teacher 2). "I and our team try to do it and it takes a long time to make it. I think I will do the new learning and teaching innovation for our students and me"(Teacher 1).* The MOOC development process was expressed by the instructors as challenging. They explained the process of development of MOOC took more time for creation and checking the accuracy. *"I don't know how to do the MOOC, I learn and try to do. Sometimes, I feel exhaustion and feel bad, but I try to do it again although it takes more time" (Teacher 1). "I do everything with our team, such as making a video, making the content, and checking the accuracy of our resources". (Teacher 2).*

The last theme, overcome barriers, showed the views of instructor on how to overcome the barriers during the design and development phases and what are the facilitators that help them do so. *"I think, we overcome the barriers and finished the palliative care online course due to social support and collaborating between our team to solve the problem" (Teacher 1). "I think, one of the key success factors you need to solve the problems is the social support from your friends, family, and colleagues" (Teacher 2).* Social support appears as a facilitator in this study. The instructors explained the social support consisted of emotional support, instrumental support, and informational support. It associated with several studies that people with high levels of social support have low levels of stress and anxiety [18]. *"I got a lot of support from our team , which helped me making the online course smoothly. I feel I was relieved of my stress and anxiety. I had time to think that what should I do" (Teacher 2).* The instructors expressed their experiences in how they overcame the barriers with problem solving approaches. *"During the development phase, I and our team solved a lot of problems, such as making the wrong video, no sound, and uploading files in the wrong track" (Teacher 2).*

The development of the online course should concern six stages, as follows: (1) open your eyes and mind to learn benefits of the online course; (2) consider the topic and context of online learning, such as learners and types of online learning; (3) set goals and purposes of the online course; (4) collaborate with your teams, such as professionals, consultants and cross-professionals as a social support to design the structure and create the content of the online course based on teaching-learning innovation; (5) learn to develop the online course by practice as a challenge; and (6) action on your online course by checking quality and solving the problems during the development of the online course.

IV. DISCUSSION

This study demonstrated the process of design and development of a palliative care course and that it would be feasible to continue to conduct and overcome the barriers in the next phase of the interactiveness of a Massive Open Online Course model for a palliative care course on learning achievement in students. The overall aim of the study is to improve attitude, knowledge and capability of learners in palliative care, especially the knowledge which should be integrated and adapted to use in their daily life for palliative care of both patients and their families.

The qualitative findings indicated the views of instructors who participated in the design and development phase, and that they changed their attitude about online teaching as a teaching and learning innovation and that it might be better than the traditional teaching due to time, accessibility, and resources. Several studies showed the success rate of the development of an online course is associated with the high level of positive attitude, which is related to high self-efficacy [18],[19]. It is also related to the high level of increased knowledge about the benefits of MOOC and online courses. The benefits of MOOC are to help the instructors as a facilitator to increase self-confidence in the design and development process of palliative care. The instructors showed that they think the development of MOOC as a challenge although it took more time. However, they also indicated that they learned the process of development of the palliative care course. It appears as a positive impact that motivated them to continue develop the MOOC: palliative care course over six months.

During the development phase, the finding indicated the practice of the instructors and team about how to overcome the barriers. The instructors perceived their social support from their friends, families, and colleagues as emotional, informational, and instrumental supports serving as a facilitator that they used to overcome the barriers to develop MOOC. In the real situation, the findings showed the instructors solved the problems with their team, which helped them to overcome the barriers during the practice [17],[18],[19]. Social support and a problem solving approach are keys to success in the development of palliative care course in this study. This is as an experience to conduct the next online course on MOOC and which reflects to learn the pitfalls and good strategies and evidences of the best practice in the future.

V.   CONCLUSION

MOOC is a new trend in higher education in developing countries. It significantly increases open accessibility of learners and improves the effective teaching and teaching innovation in the 21st Century. The study demonstrated the basic concept on the process and perspectives of the instructors in this study is to change their attitude, enhance knowledge, and learning by doing (practice) in six stages: open your vision, consider the topic and context, set goal and purpose, collaborate with your teams, learn as a challenge, and take action on your online course. This study of the initial phases to design and develop the MOOC: palliative care included the small sample size and characteristics of instructors who participated in the MOOC. The data saturation was concerned due to the small size for a qualitative approach. It has limited generalizability of the study findings.

CONFLICT OF INTEREST

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REFERENCES

[1] Murugeasn, R., Nobes, A.,& Wild, J. "A MOOC approach for training researchers in developing countries," *Open Prax.*, vol. 9, no. 1, pp. 45–57, 2017.

[2] European Commission, "Reports on Web Skills Survey: Support Services to Foster Web Talent in Europe by Encouraging the use of MOOCs Focused on Web Talent First Interim Report," 2014. https://op.europa.eu/en/publication-detail/-/publication/238405c7-8e5a-4b7c-87f0-c2432f14349c. (accessed Oct. 10, 2019).

[3] Liyanagunawardena, T.R., Adams, A.A., & Williams, S.A, "MOOCs: A Systematic Study of the Published Literature 2008-2012," *Int. Rev. Res. Open Distrib. Learn.*, vol. 14, no. 3, pp. 202–227, 2013.

[4] Nilmanat,K. "Palliative care in Thailand: Development and challenges.," *Can. Oncol. Nurs. J.*, vol. 26, no. 3, pp. 262–264, 2016.

[5] World Health Organization, "Palliative care for noncommunicable diseases: A global snapshot.," 2019. https://www.who.int/ncds/management/palliative-care/PC-infographic-rev-2018-final-for-web.pdf. (accessed Nov. 15, 2019).

[6] Krongyuth, P., Campbell, C., & Silpasuwan, P."Palliative care in Thailand.," *Int. J. Palliat. Nurs.*, vol. 20, no. 12, pp. 600–607, 2014.

[7] Garcia-Baquero Merino,M.T. "Palliative care: Taking the Long View," *Front. Pharmacol.*, vol. 9, 2018, doi: 10.3389/fphar.2018.0140.

[8] Grossoehme DH., "Overview of Qualitative Research," *J. Heal. Care Chaplancy*, vol. 20, pp. 109–122, 2014, doi: 10.1080/08854726.2014.925660.

[9] Sloan A,& Bowe, B. "Phenomenology and hermeneutic phenomenology: the philosophy, the methodologies, and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design.," *Qual Quant*, vol. 48, pp. 1291–1303, 2014, doi: 10.1007/s11135-013-9835-3.

[10] Gildersleevea M., "The Phenomenology and Ontology of Complexes," *Procedia - Soc. Behav. Sci.*, vol. 217, pp. 967–976, 2016, doi: 10.1016/j.sbspro.2016.02.074.

[11] Braun, V. & Clarke,V. "Using thematic analysis in psychology," *Qualitative Research in Psychology*, 2006. http://eprints.uwe.ac.uk/11735. (accessed Jul. 20, 2015).

[12] Holloway, I. & Wheeler,I. *Qualitative research in nursing and healthcare*, Third. Chichester: Wiley-Blackwell, 2010.

[13] Dobrina, R., Tenze, M.& Palese,A. "An overview of hospice and palliative care nursing models and theories," *Int. J. Palliat. Nurs.*, vol. 20, no. 2, pp. 75–81, 2014.

[14] Trueman, G. & Woytkiw, G."Palliation: A new beginning for end of life care," *Alberta RN*, vol. 71, no. 2, pp. 12–21, 2015.

[15] Ismail,M.E. "Development of Massive Open Online Course (MOOC) based on Addie Model for Catering courses," *J. Pendidik. Vokasi*, vol. 8, no. 2, pp. 184–192, 2018.

[16] Kemp, N. & Grieve,R. "Face-to-face or face-to-screen? Undergraduate' opinions and test performance in classroom vs. online learning," *Front. Psychol.*, vol. 5, no. 1, pp. 1–11, 2014, doi: 10.3389/fpsyg.2014.01278.

[17] Alsaaty, F.M., Carter, E., Abrahams, D., & Alshameri, F."Traditional versus Online learning in Institutions of Higher education: Minority Business Students' perceptions.," *Sciedu Press*, vol. 5, no. 2, pp. 31–41, 2016.

[18] Ferguson, K., Mang, C., & Frost, L."Teacher Stress and Social Support Usage," *Brock Educ. J.*, vol. 26, no. 2, pp. 62–86, 2017.

[19] Kundu,A. & Ghose, A. "The Relationship Between Attitude And Self Efficacy In Mathematics Among Higher Secondary Students," *IOSR J. Humanit. Soc. Sci.*, vol. 21, no. 4, pp. 25–31, 2016.