Humanized childbirth awareness-raising program among Tanzanian midwives and nurses: A mixed-methods study

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Abstract

Background: In 2014, the WHO released a statement advocating greater respect for women in their report, “The prevention and elimination of disrespect and abuse during facility-based childbirth”. To address this issue, the Japan International Cooperation Agency established humanized childbirth care.

Objective: To evaluate the acceptability of the humanized childbirth concept by Tanzanian nurses and midwives.

Design: Convergent mixed-methods design.

Setting: Continuing education held at Tanzania’s capital city of Dar es Salaam.

Participants: The inclusion criteria were as follows: (1) registered nurses and midwives; (2) can comprehend English; (3) interested in humanized childbirth, (4) experienced in providing maternal and infant care or midwifery, and (5) attended the two-day program on humanized childbirth.

Methods: The program was evaluated quantitatively and qualitatively. The valid and reliable 23-item Women-Centered Care English version (WCC23E) questionnaire was used. Open-ended questions elicited the participants’ opinions about the program.

Results: The entire program was completed by 104 participants (average age, 40.9 years; SD, 9.13). Based on the quantitative data, the mean WCC23E post-test scores showed a significant increase compared with the mean WCC23E pre-test scores, indicating improvement in awareness. The qualitative data revealed three categories: “Gaining knowledge of humanized childbirth as a general dictionary term”, “Accepting and assimilating the concept of humanized childbirth in consideration of their practice”, and “Manifesting their voices of barriers and challenges towards humanized childbirth”.

Conclusion: The humanized childbirth awareness-raising program was useful for nurses and midwives in terms of favorably changing their perceptions of women-centered care.

1. Introduction

In the WHO 2014 paper entitled, “The prevention and elimination of disrespect and abuse during facility-based childbirth”, the initial statement reads, “Many women experience disrespectful and abusive treatment during childbirth in facilities worldwide” (WHO, 2014). In Tanzania, one of the challenges to midwifery is the shortage of midwives despite the increasing number of pregnant or birthing women coming to hospitals. Nyamtema et al. (2008) found that in Dar es Salaam, one of Tanzania’s largest cities, the ‘Workload Indicators for Staffing Need’ ratio of trained nurses/midwives to needed nurses/midwives was 0.2; that is, one nurse/midwife carries the equivalent responsibilities of five nurses/midwives. Research showed that nurses/midwives were overworked and that they struggled with the stress of having inadequate resources, inadequate supervision, and ethical dilemmas (Häggström, Mbusa, & Wadensten, 2008).

Both physical and emotional traumas have been documented. Mselle, Kohi, Mvungi, Evjen-Olsen, and Moland (2011) interviewed...
16 women and another 151 women who responded to a quantitative survey about their birth experience. The data documented the impact of inadequate staffing, specifically the lack of midwifery assistance and assistance by poorly trained personnel for women giving birth, and illustrated how the poor quality of care at health facilities led to obstetric fistulas because of prolonged labor. Shimpuku, Patil, Norr, and Hill (2013) reported that women’s needs were difficult to fulfill at busy facilities in rural Tanzania. Another qualitative study of 112 women, husbands, community workers, and public leaders from eastern Tanzania found that women experienced various types of abuse ranging from verbal (e.g., humiliation and scolding) to rough treatment and denial of pain relief (McMahon et al., 2014).

Humanized care emanates from valuing women. Wagner (2007) describes this care as follows: the woman is in charge of making the decisions about what will happen to her during her pregnancy. From 1996 to 2001, the State of Ceará in north-east Brazil established humanized care in collaboration with the Japan International Cooperation Agency (JICA) (Misago et al., 2001). Importantly, it is crucial to institutionalize women-centered care (WCC) to mitigate over-medicalization and to provide a humanized environment for birth. An effective method for achieving this is to provide high-quality midwifery education (Renfrew et al., 2014). However, as this was still a new concept in Tanzania, it was necessary to investigate how the concept would be accepted and if it could be modified to fit the context of Tanzania. Midwifery leaders from Tanzania and Japan initiated a collaboration (Shimpuku et al., 2015) to improve clinical practice and education. This development presented a good opportunity for introducing the concept to Tanzanian midwives to assess whether the concept was understood and acceptable.

The objective of this study was to evaluate the acceptability of the ‘humanized childbirth’ concept by Tanzanian nurses and midwives. The specific objectives were (1) to evaluate the perception of the humanized childbirth concept using WCC questionnaires at the pre-test and post-test sessions of a two-day workshop; and (2) to describe the humanized childbirth awareness-raising process using the participants’ voices and opinions throughout the workshop.

2. Methods

2.1. Design

Mixed-methods with a convergent sample was used to determine the acceptability of the concept. The study design included illustrating quantitative results with qualitative findings, and synthesizing complementary quantitative and qualitative results to achieve a more complete understanding of the phenomenon (Creswell & Plano Clark, 2011).

2.2. Participants

The participants included those who met the following inclusion criteria: (1) registered nurses and midwives from primary level facilities and referral hospitals; (2) can comprehend English; (3) interested in humanized childbirth; (4) experienced in providing maternal and infant care or midwifery; and (5) attended the two-day program on humanized childbirth.

2.3. Recruitment setting and procedure

Potential participants were recruited by one of the authors (SD) by placing advertisements in hospitals at urban and rural areas around Dar es Salaam. Assistant researchers of the program at registration desks explained the research and obtained informed consent to participate prior to the start of the program.

The participants completed a pre-test questionnaire designed to elicit both quantitative and qualitative data. After the first day of the program, the participants completed a post-test questionnaire. Additionally, the participants completed a questionnaire at the end of program (second day).

A total of 123 questionnaires were distributed and received. There were 104 eligible participants who met the inclusion criteria, and this sample size was considered to be sufficient in terms of the reliability of both quantitative and qualitative data. Because the WCC23E was used for the first time among Tanzanians, it was necessary to conduct a factor analysis to identify the validity of the questionnaire. Ishii (2005) suggested including approximately five participants per item in the questionnaire to be able to conduct a robust factor analysis. The WCC23E included 23 items; therefore, the sample size should be 115.

As for qualitative content analysis, the number of participants required depends on the purpose of the inquiry, usefulness, credibility, and available time and resources (Patton, 2002). To analyze the humanized childbirth awareness-raising process of the participants, their individual voices were reflected and disclosed through a workshop based on all of the participants’ responses to open-ended questions from the questionnaires, the content of group discussion achievements, and the oral presentations during the workshop.

2.4. Program

The key concepts of the program emerged from six crucial elements of ‘humanized childbirth’ used in the Brazil project Projeto Luz (Project of Light) (JICA, 2001; Misago, Umenai, Onuki, Haneda, & Wagner, 1999) as follows: “(1) is fulfilling and empowering both women and to their care providers; (2) promotes the active participation and decision making of women in all aspects of their own care; (3) is provided by physicians and non-physicians working together as equals; (4) is evidence-based practice, including technology; (5) is in a decentralized system of birth attendants and institutions with high priority to community-based primary care; and (6) is with cost-benefit analysis for financial feasibility”.

The program was aimed at providing Tanzanian midwives and nurses opportunities to learn and discuss their ideas and opinions about ‘humanized childbirth’ (see Table 1 for content of the program).

2.5. Instruments

2.5.1. Quantitative data

The recognition of the women-centered care-pregnancy questionnaire (WCC-preg) was previously shown (Iida, Horiuchi, & Nagamori, 2014) because of the conceptual similarity of the main elements of care between humanized childbirth and WCC. Horiuchi, Kataoka, Eto, Oguro, and Mori (2006) identified the components of WCC as respect, safety, trust, and collaboration to encourage women’s empowerment.

The WCC23E is a 23-item self-administered questionnaire that was developed based on the 50-item WCC-preg (Agus, 2013; Iida, Horiuchi, & Porter, 2012; lida et al., 2014). The original questionnaire was designed to measure women’s perception of care that they received during pregnancy. In the present research, the introduction of the questionnaire was therefore stated as follows: “Neema” gave birth at a hospital and she told us about her experience with the caregiver. Do you think the care she received was appropriate? Encircle the most appropriate number in consideration of your current workplace situation.
The reason for asking in this manner is because the self-evaluations of the healthcare provider are as important as the viewpoints of the women. To enable objective assessment, the questionnaire instructed the healthcare providers to dissociate themselves when answering the questions, which means that they could answer freely according to the actual status.

The questionnaire items asked the healthcare providers if they agreed or disagreed using a 5-point Likert-type scale: 1) Strongly agree, 2) Agree, 3) Neither, 4) Somewhat disagree, and 5) Strongly agree. The possible scores ranged from 23 to 115 points. The higher the points, the more the healthcare providers felt that WCC was appropriately provided. There are four factors associated with WCC: 1) Being supported to make a decision, 2) Effective interaction, 3) Being respected, and 4) Trusting the caregiver. The coefficient alpha for all 23 items was 0.835, indicating high internal consistency.

2.5.2. Qualitative data

Qualitative data were collected from multiple sources to provide a comprehensive description and these included the following: (1) participants’ responses to open-ended questions from the questionnaire; (2) transcripts of group discussions archived by groups consisting of 6–7 participants; (3) quotations from oral presentations about humanized childbirth. After learning about the concept, the participants were asked to give a response to two questions regarding (1) what they imagined from the term ‘humanized childbirth’ before the program, and (2) which terms or phrases they thought were appropriate to describe humanized childbirth within Tanzania. One part of the data was from the questionnaires from 104 participants and another part of the data was from the group discussions and oral presentations. The participants wrote their group discussion on a large paper to show the other groups. A research assistant recorded information about the oral presentations.

2.6. Analysis

For quantitative analysis, descriptive data were collected to identify the demographic characteristics. The difference between the average WCC223E questionnaire scores was analyzed using a two-tailed t-test. A p-value of less than 0.05 was considered to indicate a statistically significant difference. The statistical analysis software used was SPSS Version 17.0 for Windows.

For qualitative analysis, the responses to the open-ended questions were analyzed in accordance with inductive qualitative content analysis to facilitate interpretation (Elo & Kyngas, 2007). To explore the midwives’ and nurses’ experiences of the program, this qualitative content analysis focused on descriptions of humanized childbirth. The written responses to the open-ended questions were read several times so as to store the description in the researcher’s memory. To organize the qualitative data, the process included open coding, creating categories in chronological order, and abstraction. The qualitative data which resulted in three categories were saturated. All quotes used in the description of the results are from different participants. Qualitative content analysis was carried out in several steps through many discussions with two authors (SH and YS). The credibility of the results was ensured by triangulating different sources of information, reviewing disconfirmation evidence, research reflexivity, member checking, collaboration with participants and Tanzanian researchers, and academic advisor’s auditing (Creswell & Miller, 2000).

Quantitative and qualitative data were analyzed separately in accordance with the convergent design.

2.7. Ethical consideration

Research approval was obtained from the Ethics Research Committee of the authors’ institutions in Japan and Tanzania. This study was conducted based on the principals of ethics such as harmlessness, voluntary participation, anonymity, and protection of privacy and personal information. As this study collected only identifiable data from healthy adults, oral consent for participation was obtained.

3. Results

3.1. Demographic characteristics

Of the 123 questionnaires distributed and returned, 19 were excluded because of insufficient or missing data; therefore, 104 (84.6%) were eligible and analyzed. The average age of the participants was 40.9 (SD = 9.13) years, and the average period of clinical experience was 15.7 (SD = 10.7) years and ranged from 3 months to 40 years. The places of employment were as follows: government hospital 71 (68.3%), health center 11 (10.6%), and private hospital 7 (6.7%). The licenses were as follows: midwife 79 (76.0%), faculty 13 (12.5%), nurse 9 (8.6%), and student 2 (1.9%). The educational backgrounds were as follows: certificate 21 (20.2%), diploma 44 (42.3%), baccalaureate 27 (25.9%), and master’s degree and PhD 10 (9.6%). The religious backgrounds were as follows: Christian 87 (83.7%) and Muslim 17 (16.3%).

3.2. Quantitative data: Women-centered care

Fig. 1 shows the WCC223E scores before and after attending the program. The mean WCC223E pre-test score was 94.7 (SD = 11.35). The WCC223E post-test score after the first day showed a significant increase at 102.3 (SD = 11.24) (t = 6.75, p = 0.01). The second day post-test score of 105.2 (SD = 10.63) showed a significant increase from the first day post-test score of 102.3 (SD = 11.24) (t = 3.17, p = 0.01). Similarly, the second day post-test score indicated a significant increase from the pre-test score (t = 8.0, p = 0.01).

An item by item analysis showed positive and significant differences of more than 0.6 points in the following four items: “The caregiver showed concern for my family”, “I could ask questions to the caregiver without being embarrassed”, “The caregiver remembered what I talked about previously”, and “The caregiver secured sufficient time for my antenatal checkups” (see Fig. 2).

Unexpectedly, the largest difference in the score was for the item “The caregiver had a highhanded (arrogant) behavior”. The
The pre-test score was 3.7 and the post-test scores were 2.1 and 2.2. These scores for this item were lower than the scores for the other items. This means that before attending the program, the participants thought that “caregivers being highhanded (arrogant)” was an appropriate behavior. After attending the program, the participants understood that “being highhanded (arrogant)” was not appropriate.

Table 2 shows the comparison of the WCC23E scores by educational background (certificate, diploma, bachelor’s degree, master’s degree, and PhD). There was a significant difference in the pre-test score (F = 4.006, p = 0.016). The highest score of 96.8 (SD = 19.57) was recorded for the master’s and PhD degrees, whereas the lowest score of 88.3 (SD = 9.5) was recorded for the bachelor’s degree.

3.3. Qualitative data: The humanized childbirth awareness-raising process

The qualitative data revealed three categories. The first category was termed, “Gaining knowledge of humanized childbirth as a general dictionary term”. Before the intervention, the participants described humanized childbirth as it was described in the presentation. The second category was termed, “Accepting and assimilating the concept of humanized childbirth in consideration of their practice” at the post-test after the first day. The third category was termed, “Manifesting their voices of barriers and challenges towards humanized childbirth” at the post-test after the program. The participants showed their assessment of realistic situations and represented the future plan.

3.3.1. Gaining knowledge of humanized childbirth as a general dictionary term

The pre-test revealed that most of the answers depicted images of the following words: humanity, skills, culture, support, and normal/natural process. Many participants used the words ‘humanity’
and ‘support’ in their descriptions as shown in some excerpts below:

What I understand by the word “Humanization” [is that it] means respecting the human being. Hence, humanized childbirth means respecting the mother who is delivering by assisting her to get all the necessary assistance with the inclusion of psychological support and using encouraging words as well as trying to bear her burden together with you as a care giver (sympathizing). [no. 111]

Humanization of childbirth is a [type of] care which [a] pregnant mother [is] supposed to get when pregnant till delivery. Human being [treatment] should be applied to the pregnant mother in order to prevent maternal death as well as fetal death. When [a] pregnant mother received good care from [the] antenatal clinic and during delivery, she get better care. I think we can prevent a lot [of] maternal and fetal deaths. [no. 42]

3.3.2. Accepting and assimilating the concept of humanized childbirth in consideration of their practice

The participants’ descriptions on the first day of post-test were noticeably different compared with their pre-test descriptions. The sentences of the participants were obviously drawn from the lectures or presentation slides as if they took and accepted the terms as described. There were various expressions, as well as new post-test words that differed from the pre-test words as follows: empowerment, coordination, respect, dignity, WCC, safe, empathy, cost-benefit, evidence-based practice, decentralized system, family, and holistic.

Humanized childbirth is how the women and caregivers interact so that the women can get good service. This good service should be done when the mother is able to make decisions concerning childbirth. Also, evidence-based care [information] is needed by the care provider in order to have scientific knowledge, which will help to provide quality care to the mother. [no. 71]

A few participants expressed the difficulty of providing humanized childbirth care in the context of Tanzania. After accepting the humanized childbirth concept, some of the participants started to assimilate the concept and thought how it could be applied in their own context.

I think humanized childbirth in our present setting can vary due to the lack of staff, motivation and other [factors] like equipment, as well as ethics should be followed so empathy can be followed. [no. 14]

We need more manpower, enough places to promote the active participation and decision making of women in [all] aspects. [no. 115]

3.3.3. Manifesting their voices of barriers and challenges towards humanized childbirth

The final (second day) post-test showed unique ways of thinking or individual expressions because the group discussions encouraged the participants to express their views realistically. There were significant health system challenges for the participants such as risk of infection, lack of health facilities, and shortage of human resources. However, this program motivated the nurse-midwives to move into action using their resources. One nurse-midwife enthusiastically presented the following group statement after the group discussions:

“Humanized childbirth is possible in our setting by using available resources. We don’t need anything from Japan or [the] UK to conduct humanized childbirth. We can do that even with our limited resources!” [no. 142]

Other related statements were as follows:

Humanization of childbirth is a good concept which midwives should practice regardless of the shortage of staff and equipment in the working place; by practicing it, it will reduce negative attitudes and rumors which [the] community has towards midwives. [no. 31]

I am expecting to conduct this humanized childbirth in my settings according to the availability of resources we have. [no. 16]

Humanized childbirth is a concept which is not new. It is applicable to a nurse-midwife and [a] pregnant woman in Tanzania. [no. 105]

Healthcare providers should change their attitude towards the profession of midwifery services; and this will help the professional midwives to build a positive image to the society. [no. 79]
Introducing the humanized childbirth concept motivated the nurse-midwives to form a more positive image of humanity. Another participant mentioned that people had an image of nurse-midwives as being cold, arrogant, and negative because they were always busy and overloaded. After attending the program, however, the participants noticed that their attitudes did not meet ‘good practice’ by global standards and they were willing to change to improve their practice. The participants felt more motivated to make a difference to improve their current reality.

4. Discussion

4.1. Acceptability of the “humanized childbirth” concept

In this study, we planned to introduce the new concept of ‘humanized childbirth’ provision among Tanzanian midwives and nurses. For the quantitative data, the WCC23E post-test scores were significantly higher than the WCC23E pre-test scores. This indicates that the concept was understandable and acceptable. On the other hand, the qualitative analysis indicated a process of transforming or assimilating the concept from an idea to reality in the clinical setting. The participants subsequently changed their description of humanized childbirth from “general dictionary terms” to “manifesting voices of barriers and challenges” through a stage of “Accepting and assimilating the concept in consideration of their practice”.

Admittedly, it is not always easy to introduce concepts and theories from one cultural context to another such as from Japan to Africa (Bultemeier, 2012; Dunlap, 2013). The key to a successful introduction has been attributed to the implementation of the characteristics of teaching/learning strategies. Cross-cultural co-teaching of content can possibly facilitate acceptance (Zolfagharian, Frat, & Munoz, 2011). Robertson et al. (2003) pointed out that continuing education that is ongoing, interactive, and contextually relevant is more likely to improve professionals’ knowledge and attitudes as well as patient outcomes. Furthermore, instructional methods that mirrored WCC have been reported such as respecting the needs of the adult learner and partnership, thus role-modeling the concept being taught (Cruss, Cruss, & Steinert, 2008). In their program, the relevance of the concept to their practice was emphasized. WCC was drawn from several previous studies (Agus, 2013; Bondas, 2002; Hildingsson & Thomas, 2007; Horuchi et al., 2006; Iida, Horuchi, & Porter, 2012; Iida et al., 2014; Luyben & Fleming, 2005) and guidelines (Horuchi, Yaju, Kataoka, Eto, & Matsumoto, 2009; National Institute for Health and Clinical Excellence, 2008) as the basic principles of care for women across countries. Therefore, it was assumed that it would be easy for the participants to reflect and imagine theory-based clinical practices.

The quantitative results showed that the participants who had graduate education had a better consideration of theory-linked clinical practice than the participants who completed only a bachelor’s education. Interestingly, the participants with a diploma showed higher scores than the participants with a bachelor’s degree. This suggests that the participants with a bachelor’s degree might have failed to fully understand the concept because they had little clinical bedside practice owing to their administrative responsibilities. One concern at this point is that the qualitative results could not provide any definitive reason for the failure to fully comprehend the concept; further in-depth interview is necessary.

4.2. Making changes: ‘good practice’ by global standards

In the obtained quantitative data, the pre-test score for the item “The caregiver had a highehanded (arrogant) behavior” showed a significant decrease in the post-test score. We carefully pondered on this situation while evaluating the WCC scores. The item ‘arrogant’ was a reversed question, and the relatively high pre-test score showed the realistic reflection in Tanzania where a nurse feels that she or he must be authoritative in the heavily crowded and somewhat chaotic clinical setting and that she or he must tell the patients what they should do. Notably, the qualitative data showed that after attending the program, the participants noticed that their attitudes did not meet ‘good practice’ by global standards. Bowser and Hill (2010) reviewed evidence in which seven categories of disrespect and abuse in childbirth were identified: physical abuse, non-consented care, non-confidential care, non-dignified care, discrimination based on specific patient attributes, abandonment of care, and detention in facilities. They reported that these forms of disrespect and abuse run wide and deep within the maternity service of many countries. Mselle, Moland, Mvungi, Evjen-Olsen, and Kohi (2013) reported that women who were affected by obstetric fistulas experienced poor quality of birth care, lacked support, experienced neglect, as well as physical and verbal abuse. This poor quality of care has created among women fear that they may not receive technological support when needed. A comprehensive perception of these quantitative and qualitative results reveals that the participants were gaining notice of this issue and were willing to change to improve their practice. Although these facts were well realized by the workshop participants, they likewise noticed that changes in the clinical areas had not occurred efficiently. This situation encouraged them to be ‘change agents’ to improve the quality of care within their context. To this end, the first step in realizing change is to recognize and address the actual situation, which is the elimination of disrespectful behavior. This step may become one of the factors that is sufficient for motivating the implementation of humanized care within skilled birth care facilities.

4.3. Effective teaching/learning strategies for continuing education

Accordingly, various types of continuing education based on the principles of adult education should be offered more frequently to promote retention of nurses and midwives in Tanzania. Willis-Shattuck et al. (2008), reporting their systematic review of motivation and retention of health workers in developing countries, noted that continuing education was one of the seven major motivational themes.

Although it was cumbersome to write qualitative answers three times in the pre-test and post-test, the participants have recognized that their description of the “humanized childbirth” concept had been changed. The description change could be summarized as starting from “Gaining knowledge of the concept of humanized childbirth as a general dictionary term” through a stage of “Accepting and assimilating the concept of humanized childbirth in consideration of their practice”, and finally to “Manifesting their voices of barriers and challenges towards humanized childbirth”. With regard to teaching/learning strategies for clinical nurses and midwives, we found discussions and group presentations to be useful in bringing out ideas and solutions. These strategies of eliciting a response are congruent with the finding of recent educational research, that is, active learning strategies tend to be more effective than self-directed learning among health professionals. Mahler, Wolcott, Swoboda, Wang, and Arnold (2011) reported that self-directed learning is less effective than workshops or lectures for teaching electrocardiogram techniques. According to their research, the workshop-based format involved small-group activities in which the participants were active learners. Particularly in low-resource counties, nurses and midwives have been eager to learn for their continuing education (Tanaka, Horuchi, Shimpuku, & Leshabari, 2015). Rowthorn (2015) made a proposal from the viewpoints of...
120 global health educators and convened them to discuss the concept underlying global/local education. A preliminary list of the learning approaches developed consisted of seven programs including experiential/clinical learning. Importantly, global/local programs should develop a health educator’s ability to work with individuals, groups, and organizations.

5. Study limitations

The lack of a randomized control group was a limitation of the present evaluation. However, as it was the first attempt to provide a collaborative program, it was not feasible during this time to set both an intervention group and a control group. Additionally, the evaluation period was set only immediately after the program period. The long-term effects of the program should also be evaluated. Ideally, the next step should include observations in the clinical area to evaluate attitude and behavior changes after attending the program.

6. Conclusion

The nurses’ and midwives’ perceptions of the ‘humanized childbirth’ concept before and after attending the program indicated a change towards concept acceptance. The mean WCC23E pre-test and second day post-test scores showed a significant increase. Qualitative data revealed that Tanzanian nurses and midwives had experienced the humanized childbirth awareness-raising process. They were highly motivated by the program to achieve high-quality maternity care. The humanized childbirth awareness-raising program was found to be useful for nurses and midwives as it favorably changed their WCC perceptions.

Conflicts of interest

The authors declare that they have no conflicts of interest associated with this study.

Authors’ contributions

SH, YS, and MI were responsible for the study conception and design, and the drafting of the manuscript. YN, HE, and LS performed data collection, and SH and YS conducted data analysis. All the authors have read and approved the final manuscript for submission.

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