

Feasibility of an Educational Program for Clinical Educators to Promote Novice Midwives' Clinical Judgment: A Feasibility Study

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Abstract

Background: The COVID-19 pandemic greatly impacted the clinical practicum programs of student midwives. It is very important for clinical educators to educate novice midwives in clinical settings. The purpose of this study was to develop an educational program for clinical educators to promote clinical judgment of novice midwives during delivery and to evaluate the feasibility of its practicality, acceptability and implementation. **Methods:** This feasibility study used an exploratory descriptive design with data generated from a questionnaire. The inclusion criteria were midwives assigned to the delivery ward who were newly scheduled to educate novice midwives in 2019 or had become a clinical educator within a year or two. The program consisted of e-learning (30 minutes) and lecture, simulation and discussion (about 2.5 hours). Descriptive statistics were performed for participant characteristics and evaluation of feasibility. Responses to the open-ended question were sorted into categories. **Results:** There were nine participants from two facilities. Practicality and acceptability received mostly positive evaluations. However, for a few the simulation scenarios were difficult to understand. Implementation of all the e-learning content was successful, and seminar attendance was 100% from start to finish. **Conclusion:** We found this e-learning program feasible in terms of practicality, acceptability and implementation. Most of the comments were positive opinions regarding future utilization of novice midwives' education and clinical utilization of the program, suggesting that the clinical significance of this program was extremely high.

Keywords

Clinical Reasoning, Education, Midwifery

1. Introduction

The COVID-19 pandemic greatly impacted midwifery education, especially clinical practicum programs for student midwives. The hospital sometimes refused to accept midwifery students for training, fearing the spread of COVID-19 [1]. Therefore, clinical midwifery practicums were replaced by e-learning, case analysis or clinical case simulation scenario exercises in Japan [2]. Approximately half of the midwifery courses reported that midwifery training was cancelled or suspended [3]. Although the adjusted clinical practicum may be partly effective, the competences of new midwives may be insufficient because of the lack of opportunity to fulfill their practicum program. During and after the pandemic of COVID-19, clinical education for new midwives is more important than before in clinical settings [4]. Basically, newly qualified midwives are very stressed to work as midwives because they have less experience in assessing and caring for pregnant women due to reduced practice and lack confidence in their own practice skills. It has been pointed out that even under normal circumstances, the transition period from student to registered midwife is a stressful time, and without proper education and support, it can lead to burnout and attrition [5]. In addition to training for new midwives to strengthen their practice skills, it's necessary to provide more opportunities for them to consult with their clinical midwife educators and reduce the stress of new midwives in order to maintain their mental health [6]. In particular, in light of the impact of COVID-19 on new midwives, clinical educators must understand the characteristics and circumstances of newly midwives and provide effective education to improve their clinical skills [7] [8].

Tanner's clinical judgment model has been endorsed as an educational strategy for promoting clinical judgment for nurses and midwives [9]. It is based on interpreting, integrating, and acting on the patient's needs and health problems, and then improvising what is appropriate according to the patient's responses. The clinical judgment model is different from the nursing process. Clinical judgment in the nursing process is a problem-solving method that involves assessment, nursing diagnosis, planning, nursing intervention, and evaluation. Therefore, it is useful in teaching nursing and midwifery students systematic problem-solving thinking, but it does not adequately describe the clinical judgment process performed by nurses and midwives. The model of clinical judgment consists of four aspects: Noticing, Interpreting, Responding, and Reflection [10]. Each aspect is explained below. Noticing is a perceptual understanding of a situation. It is the ability to grasp the information that nurses and midwives need to predict future situations. In order to understand the situation, the nurse and the midwife must have practical knowledge of the patient's condition and response patterns, knowledge acquired through previous experience, and knowledge gained from textbooks. In addition, the nurse's attitude towards excellence in practice, values towards the patient, culture in the ward, and complexity of the work environment also influence noticing. Interpreting is the development of an

adequate understanding of the situation for the aspect of responding. Interpreting allows the nurse and the midwife to make sense of the information and determine the appropriate actions. An initial grasp of the clinical situation triggers a pattern of reasoning, which leads to interpreting. Responding means deciding on a course of action that is considered appropriate for the situation. Interpreting and responding are intertwined, and nurses and midwives intuitively interpret, react, and corroborate cognitive patterns. Reflecting is to pay attention to the patient's response to nursing care and to reflect on the nursing interventions practiced. By reflecting, nurses and midwives can make appropriate clinical judgments in similar situations. The nurse and the midwife decide on an action in the aspect of responding and implement nursing care leading up to the process of reflecting. At the core of clinical judgment is knowing the patient. Knowing the patient allows nurses and midwives to recognize more than what can be recognized in a systematic assessment [11]. From the above, it is important how to capture the patient in the aspect of noticing in clinical judgment. In the aspect of interpreting, unless an appropriate judgment in the situation is made based on correct knowledge, the best care for the patient cannot be provided. In other words, when clinical educators educate novice midwives in clinical settings by implementing Tanner's model of how to make judgments based on emerging data, novice midwives should be able to make judgments in response to the various changes as women go through antepartum, delivery and postpartum. However, there has been no research on the education for midwifery clinical educators and particularly on how to promote novice midwives' clinical judgment during delivery.

There is an urgent need to develop and evaluate educational programs for clinical midwife educators to understand the practical skills and stresses of novice midwives and to support novice midwives in expanding and deepening their clinical knowledge and skills. The purpose of this study was to develop an educational program for clinical educators to promote clinical judgment of novice midwives, during labor and delivery and to evaluate the feasibility of its implementation, acceptability and practicality.

2. Methods

2.1. Study Design and Participants

This was a feasibility study using an exploratory descriptive design. Cooperating facilities were recruited in Japan using convenient sampling. The inclusion criteria were as follows: 1) provide labor and delivery services and 2) have at least four members who meet the inclusion criteria for participants. Consent for research collaboration was obtained from two facilities. After obtaining consent for research cooperation from the facility directors, the head midwife of the maternity ward in the facilities introduced midwives who met the following inclusion criteria for participants to a researcher: a) assigned to the delivery ward and b) who were newly scheduled to educate novice midwives in 2019 or had become

a clinical educator within a year or two. We visited each cooperating facility to conduct the educational program. This study was conducted from October to November 2019. This study commenced after the Ethics Review Committee of St. Luke's International University, Tokyo, Japan (Approval No: 19-A043) approval.

2.2. Educational Program for Clinical Midwife Educators

2.2.1. Purpose of the Program

The purpose of the educational program was to improve the clinical educator's ability to educate novice midwives about clinical judgment during labor and delivery. Tanner's clinical judgment model [10] was suitable for the educational program as a theoretical foundation as described in previous studies [12] [13] [14] [15] [16], for extracting educational methods that promote clinical judgment in this study. Based on the above, the content of the educational program focused on reflecting on one's own attitude as a clinical educator, understanding the characteristics of novice midwives, and educational methods that encourage novice midwives to think clinically during delivery.

2.2.2. Program Structure

Blended learning was used as an educational method that combines e-learning and face-to-face learning [17]. The educational program consisted of e-learning (individual learning) and a face-to-face seminar (group learning), including simulation to allow participants to acquire not only basic knowledge but also practice applying skills (Table 1).

E-learning was designed to motivate participants to learn the educational skills and knowledge that will be useful in educating novice midwives and enhanced by reflecting on their own attitudes and involvement. We referred to the previous studies based on Tanner's clinical judgment model to extract four elements [10]: 1) questioning [12] [13] [14] [15] [18], 2) teaching answers verbally [14] [15], 3) thinking aloud [14], and 4) engaging the five senses [14] [15]. The face-to-face seminar was designed to teach clinical educators educational methods to promote these clinical judgments for novice midwives using the four elements.

The two-hour and 30-minute seminar consisted of a lecture on educational methods to promote clinical judgment, simulations to practice what was learned, and discussions to share what was learned among participants. The simulation was divided into four roles: educator, novice midwife, pregnant woman, and observer. It was designed to provide an opportunity for participants to share their experiences as clinical educators, novice midwives, and observers, to reflect on what they did, and discuss what worked well and what could be improved. By taking the role of a clinical educator, participants had an opportunity to practice the methods of promoting clinical judgment that they learned in the lectures. By taking the role of a novice midwife, participants experienced the position of a novice midwife to increase their empathy. The role of an observer was to observe others' educational situations and to find out what worked well and what could

Table 1. The structure of education program.

	Learning objectives	Learning contents	Implemented method	Implemented assessment
E-learning	1) Clinical educators can notice their own attitudes towards novice midwives	Chapter 1: Knowing the practicum instructor's own feelings about the education of novice midwives		Practicality
	2) Clinical educators can notice their own tendencies in how they relate to novice midwives	1-1) Reflecting on how you felt when you were assigned to educate novice midwives		<ul style="list-style-type: none"> the ease of viewing the screen the speed of the narration the length of the medium.
	3) Clinical educators can understand the characteristics of novice midwives and the characteristics of clinical judgment	1-2) Knowing your own thoughts on educating novice midwives.		
	3-1) Clinical educators can explain the characteristics of novice midwives	Chapter 2: Knowing the characteristics of novice midwives		Implementation
	3-2) Clinical educators can explain the characteristics of clinical judgment of novice midwives	2-1) Characteristics of novice midwives	e-learning	<ul style="list-style-type: none"> the completion rate
	3-3) Clinical educators can explain the difficulties novice midwives face in making clinical judgment	2-2) Characteristics of clinical judgment for novice midwives 2-3) Clinical judgment model Chapter 3: Reflecting on how to understand and think about things 3-1) Learning how you grasp and think about things 3-2) Using positive expressions		
Seminar	1) Clinical educators can recognize ways to interact with novice midwives to promote clinical judgment	Study theme 1: Review of e-learning		Practicality
	2) Clinical educators can adopt a desirable attitude toward novice midwives as an educator	1-1) Characteristics of novice midwives	Lecture	
	2-1) Clinical educators can be respectful, empathetic, and able to relieve tensions with the novice midwife	1-2) Differences in how to grasp things and How to respond		<ul style="list-style-type: none"> the length of the seminar clarity of the simulation scenario settings atmosphere of the discussion speaking speed of the seminar facilitator.
	2-2) Clinical educators can change their own values and beliefs about newcomer education to positive ones	Study theme 2: The essentials to promote clinical judgment		
3) Clinical educators can educate novice midwives to promote clinical judgment during delivery	2-1) Attitude as a clinical educator 2-2) Methods to promote clinical judgment 2-3) How to use reflection	Lecture		

Continued

3-1) Clinical educators can select appropriate teaching methods according to the clinical situation and the individuality of the novice midwife	Study theme 3: Let's attempt to implement education that promote clinical judgment	Implementation
3-2) Clinical educators can relate to the novice midwife in an appropriate method according to the clinical situation and the individual needs of the novice midwife	3-1) Experiencing in the role of clinical educator and novice midwife 3-2) Observing educational situations conducted by others 3-3) Reflecting and discussing what you have practiced	Simulation <ul style="list-style-type: none"> • the participation rate • the extent of content completion in the planned schedule
4) Clinical educators can attempt to practice educating novice midwives during delivery	Study theme 4: Summary 4-1) Sharing learning through the program	Discussion

be improved. In constructing simulations, we relied on the INACSL Standards Committee [19] [20]. The development of two simulation scenarios was based on previous studies [15] [16]. Scenario 1 was a scene from the beginning of work at the nurses' station (Table 2). The goal of Scenario 1 was to 1) be able to respect and sympathize with the novice midwife, 2) behave in a way that would promote the novice midwife's tension relief, 3) understand the novice midwife's understanding of the situation, and 4) use questioning to stimulate thinking when the novice midwife did not understand the situation. Scenario 2 was a scene of the first stage of delivery, and the goal was for the novice midwife to be able to work from the five senses. Each scenario consisted of the briefing, first simulation, debriefing, second simulation, and second debriefing. In the first briefing, the goals of each scenario and the scenario setting were explained. The simulations were performed after checking the level of understanding of each role and recorded with the permission of participants. The debriefing was conducted using the debriefing guide sheet and the recorded video with the researcher acting as a facilitator. In the discussion, participants shared what they learned throughout the program, the feasibility of implementing it in clinical practice, and the difficulties encountered.

The content of the e-learning and seminar was reviewed and revised by four midwives, who had experience in educating novice midwives, to ensure that the goals and the contents of the educational program were appropriate.

2.3. Measurements

At the end of the seminar, the participants completed the questionnaires. For feasibility studies, eight general areas have been proposed: acceptability, demand,

Table 2. Simulation scenario.

Scenario 1: The scene from the beginning of work at the nurses' station
Information on novice midwife
22 years old, novice midwife, third day in charge of deliveries, one delivery assistance. She is quite nervous. This is the first time she has been induced with oxytocin since she qualified as a midwife. Her knowledge of induction and under-amniotic fluid is limited and she is unable to make an assessment. She has basic knowledge about delivery, but is unable to connect this knowledge to information gathering and assessment.
Information on pregnant woman
She is a pregnant woman who has one child, 39 weeks 3 days, 156 cm, 58 kg (15 kg increase from non-pregnant). AFI 4.6. Fetus' estimated weight is 2810 g (at 38 weeks 6 days). She was admitted yesterday for induction due to low amniotic fluid. Yesterday, she had five laminaria M size inserted. Laminaria was removed at 7:30 am today. Internal examination findings: os3cm, eff50%, st-2. She was induced with oxytocin at 7:40 a.m. Oxytocin was increased to 24 ml/h at 8:10 a.m. Contractions were every 8 minutes. Contractions were every 8 minutes, 20 seconds. The fetus' heartbeat was reassuring.
Situation of the scene
This is the scene where the night shift staff has finished sending out their reports. This is the nurse's station. The time is now 8:30 AM. It is 8:30 AM and the novice midwife looks nervous and says to her clinical educator, Please take care of me today. This is the start of the scene.
Scenario 2: The scene of the first stage of delivery
Information on novice midwife
22 years old, novice midwife. She assisted in five deliveries, which were four primipara (including one natural and three painless) and one multipara (painless). This is the first time that she has received a multipara who wanted to have a natural birth. She can collect information on paper, but she cannot collect information using the five senses. She cannot assess contractions by palpation, check for anal resistance, or monitor facial expressions and breathing changes.
Information on pregnant woman
She is a pregnant woman who has one child, 40 weeks 2 days. Fetus' estimated weight is 3020 g (at 39 weeks 3 days). The pregnancy progressed without any problems. The first child was born at 3560 g. The delivery time was 10 hours. She was admitted to the hospital due to onset of labor 2 hours ago. Internal examination findings at admission: os3-4cm, eff80%, st-2. Contraction interval was every 7 - 8 minutes. It is now 8:00 a.m., contractions are every 5 - 6 minutes, contractions are still weak. She can take deep breaths during contraction attacks to release the contractions.
Situation of the scene
The delivery is progressing well. The contractions are still weak, and the pregnant woman can take deep breaths during contraction attacks to release the contractions. The novice midwife will now take charge and visit the room to greet you.

implementation, practicality, adaptation, integration, expansion and limited-efficacy testing [21]. In this study, practicality, acceptability and implementation of the educational program were examined (Table 1). Table 3 presents the questions and response choices. To assess practicality of the educational program, questions about e-learning and the seminar were asked. For e-learning participants were asked about the 1) ease of viewing the screen, 2) the speed of the narration, and 3) the length of the medium. For the seminar, questions were about the a) length of the seminar, b) clarity of the simulation scenario settings, c) atmosphere of the discussion, and d) speaking speed of the seminar facilitator. Regarding the educational program as a whole, the questions of

Table 3. Evaluation of E-learning and Seminar (n = 9).

	Item	Description	n
E-learning	Ease of viewing the screen	Rather easy to see	7
		Very easy to see	2
		Fast	0
	Speed of the narration	Just right	7
		Slow	2
		Short	0
	Length of e-learning	Just right	7
		Long	2
	Seminar	Length of the seminar	Short
Just right			7
Long			2
Clarity of the simulation scenario settings: scenario 1		Very hard to understand	0
		Rather hard to understand	2
		Rather easy to understand	3
		Very easy to understand	4
		Very hard to understand	0
Clarity of the simulation scenario settings: scenario 2		Rather hard to understand	2
		Rather easy to understand	6
		Very easy to understand	1
		Hard to discuss	0
Atmosphere of the discussion	Easy to discuss	9	
	Fast	0	
Speaking speed of the seminar facilitator	Just right	9	
	Slow	0	

acceptability were about their i) sense of burden, ii) significance of the program, and iii) motivation to practice what they learned in the program. Participants could also describe their own impressions and opinions of each item. The implementation was measured by the completion rate of e-learning and the participation rate in the seminar. For the seminar, we counted the extent of content completion in the planned schedule.

2.4. Data Analysis

Statistical analysis was performed using IBM SPSS Ver. 24. Descriptive statistics were used for the evaluation of participant characteristics and feasibility. The qualitative data were divided into positive and negative opinions about e-learning, seminars, and the overall educational program.

3. Results

3.1. Demographic Characteristics

The sociodemographic characteristics is shown in **Table 4**. There was a total of nine participants. Most of the midwives had less than three years of experience educating novice midwives during delivery and one had no experience.

Table 4. Sociodemographic characteristics of participants (n = 9).

Variable	Description	n
Educational background as a midwife	Vocational school	1
	University	5
	Advanced courses in university	2
	Graduate school	1
Year of experience as a midwife	1 - 2 years	4
	2 - 3 years	1
	≤3 years	4
Years of experience educating novice midwives during delivery	No experience	1
	1 - 2 years	6
	2 - 3 years	2
The number of assisted deliveries after obtaining a midwifery license	1 - 50	5
	50 or more	3
	50≤	1
In-facility practicum instructor training	Yes	4
	No	5
Out-of-facility practicum instructor training	Yes	0
	No	9

3.2. Assessment of Feasibility

3.2.1. Practicality

As for the speed of narration and the length of e-learning, seven participants answered “just right” for each (Table 3). The open-ended comments were positive such as “It was short and easy to read” and “I was able to reconsider my feelings about the characteristics of novice midwives, how they are perceived, and how they feel about teaching”.

Concerning the seminar, seven participants thought the length was just right, the content easy to understand and both scenarios were easy to understand (Table 3). The respondents who found the simulation scenarios difficult to understand indicated that they wanted to know the level of the novice midwife before the simulation and they were told that the simulation should take about 5 minutes, but they did not know how far they should go in the simulation. Another commented in the debriefing that it was easier to reflect after reviewing the simulation on video.

All respondents answered that the atmosphere of the group discussion was comfortable. The reasons for this were that they were members of the same facility ($n = 4$) and the facilitator’s way of facilitating the discussion was good. Throughout the discussion, participants commented, “It was good to hear the opinions of others” and “It was good to share the learning with others”. All respondents answered that the speaker’s speaking speed was “just right” for the progress of the seminar. In the open-ended section, the participants were positive about the seminar, saying, “It was good that the facilitator checked the status of our understanding while proceeding”, “It was good that the feedback was accurate,” and “It was smooth”.

3.2.2. Acceptability

Acceptability of the overall program was evaluated in terms of burden, usefulness, and willingness to implement the program. Most of the participants responded positively across all three criteria (Table 5). The reasons given for the burden were “lack of experience as a clinical educator” and “long hours”. The overall impressions and opinions of the program were as follows: “It was an opportunity to reflect on my own educating of novice midwives,” “I noticed areas of weakness and my own habits,” “It was good to learn again about the characteristics of novice midwives,” “It was good to learn how to teach again,” and “It was easy to understand through the simulation”.

3.2.3. Implementation

In this feasibility study, e-learning was set to be conducted on the same day as the seminar, so everyone was able to take all the contents. No one was late to the seminar, no one left before the seminar, and everyone was able to attend the seminar from start to finish. Due to the management of the wards, it was difficult for all participants to get leave on the seminar day or to attend the seminar during their working hours. Therefore, at one facility, all participants attended the

Table 5. Evaluation of the overall program (n = 9).

Item	Description	n
Overall burden of the program	Very burdensome	0
	Somewhat burdensome	3
	Somewhat not burdensome	3
	Not at all burdensome	3
Future use of the program	Not at all useful	0
	Rather not useful	0
	Rather useful	4
Willingness to implement in the program in clinical practice	Very useful	5
	Not at all willing to try	0
	Rather not willing to try	0
	Rather willing to try	2
	Very willing to try	7

seminar outside of work hours, while at the other facility, some attended outside of work hours and some attended during work hours. However, even those who participated during work hours were able to attend the seminar during their work hours. Because of projector problems, the educational program took about 3.5 hours, which was about 30 minutes longer than the scheduled time.

4. Discussion

This feasibility study found positive reactions to an educational program that consisted of e-learning and a seminar for midwifery clinical educators. The participants were mostly novice clinical educators and some had little experience in assisting with deliveries.

In Japan, students can become certified as a midwife after conducting 10 birth assists [22]; schools in other countries such as USA, UK and Australia may require at least 40 or 50 births [23]. The educational ability of clinical educators influences clinical judgments for novice midwives during delivery. In order for midwives with little experience in assisting with delivery to train their juniors, it is reasonable to anticipate that clinical educators need targeted education for instructing novice midwives.

4.1. Practicality of the Program

4.1.1. E-Learning

Most of the participants were positive about the ease of viewing the screen, the speed of the narration and the length of e-learning. It is said that novice midwives' comprehension and ability to practice are immature, and that there is a difference between the clinical educator's comprehension and ability to apply their learning in "real-life" situation [24]. The participants were able to recognize again that there is a difference in grasping the content and ability to practice

between themselves and novice midwives.

4.1.2. Seminar

About 70% of the respondents answered that the length of the seminar was “just right,” and the time of the educational program was generally good. The reason why two respondents answered “long” is probably because the duration of the seminar was extended due to problems with the projector. Regarding the simulation, most of the respondents found the scenarios easy to understand, although a few found the scenarios difficult to understand. Therefore, it is necessary to present the level of novice midwives and confirm the objectives of each scenario in the briefing before the simulation is conducted [19]. By confirming the objectives and goals of the scenarios, the participants can understand what is expected of them in the simulation and what they are expected to be able to do. In addition, by understanding the level of the novice midwife in each scenario prior to the simulation, it is possible to think about how to approach the novice midwife in the simulation, which may lead to more effective learning. Video-assisted debriefing has been reported to improve knowledge, skills, and satisfaction. [25] [26]. In this study, the participants were able to understand their own instruction more objectively by reflecting on the simulation while watching the video during the debriefing. In the discussion, the participants were positive about exchanging their opinions and sharing their learning with others. In previous studies [27], learners sought to interact and share their learning with others, and they learned more effectively by having group discussions and opportunities for feedback. Therefore, recording the simulation and viewing the video to share the situation in the debriefing will facilitate the participants’ learning. The inclusion of simulations will deepen the learners’ understanding and provide them with applied practice in a clinical setting.

4.2. Acceptability of the Program

There were some comments that it was easier to discuss the program because they were members of the same facility. It is possible that conducting the program at each facility was a factor that facilitated the sharing of learning and the ease of conducting the simulation. A few of the respondents answered that the entire program was “rather burdensome,” and they cited “lack of experience as an educator” as the reason. In the simulation, one of the respondents who indicated difficulty in playing the scenario had no experience in educating novice midwives during delivery. These results suggested that this program, which includes simulation, might be difficult for those who have no experience in educating novice midwives during delivery. In order for the simulation to be an effective learning experience for those who have no experience in educating novice midwives, it is necessary to support them and reflect on what they found difficult and what they should have done differently during the debriefing by discussing and resolving their problems. As a facilitator, it is also important to understand the level of the participants before attempting to support them [28].

4.3. Feasibility of the Program

The participants were satisfied with the opportunity to reflect on their own instruction and learn how to teach by participating in this program. Therefore, the participants may have been motivated to apply what they learned in the educational program to their clinical practice in the future. It is meaningful to use this program for the education of clinical educators. There is a high likelihood that the participants will be able to implement what they have learned in the educational program. By conducting the educational program at each facility, the participants were familiar with each other, which made it easier to conduct simulations, and many opinions were expressed during debriefings and discussions. This program can be implemented at other facilities as well, as long as the preparation is made to avoid equipment problems and efforts are made not to extend the seminar time.

5. Limitations of the Study and Future Challenges

Based on the results of this study, the media and program structure need to be re-examined and revised. As for the seminar, the seminar time will be shortened and the simulation scenario will be reconsidered. In addition, it became clear that this program, which included simulations, was difficult for educators who had no experience in educating novice midwives. Either facilitators need to understand the level of the participants and support them so that the simulations become effective learning for the participants or modified programs need to be developed specifically for novice educators.

6. Conclusion

The issues regarding the content and structure of e-learning and seminars were clarified. However, most of the opinions were positive regarding the future use of the program for novice midwife education and the clinical use of the program, suggesting that the clinical significance of the program is very high. Given the acceptance and practicality of the program, it should be developed further and tested in a clinical setting.

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Conflicts of Interest

There are no conflicts of interest related to this manuscript.

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