Effect of workshop training along with simulation and support of labor practitioners on their attitude and performance in conducting routine episiotomy

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Abstract:

INTRODUCTION: Routine episiotomy is a common procedure to shorten the second stage of labor. The attitude of individuals is an important factor in episiotomy, which is often carried out without an indication. Therefore, this study aimed to determine the effect of education and support of labor practitioners on their attitude and performance in conducting routine episiotomy.

MATERIALS AND METHODS: This was a quasi-experimental study. A sample of 66 midwives, physicians, and midwifery faculty members were selected through the convenience sampling method. The data collection instrument was the questionnaire of personnel's attitude toward episiotomy. This questionnaire was completed by the participants before and 3 months after the intervention. A 16-h workshop about the education of natural childbirth for 2 days was performed on the experimental group. Data analysis was performed using paired t-test and Pearson’s correlation test.

RESULTS: The findings showed that mean attitude of the participants toward episiotomy was 50.5 ± 1.58 before the intervention, which changed to 61.18 ± 2.5 after the intervention, demonstrating a significant difference between the attitude of the participants before and after the intervention using paired t-test (P < 0.001). In terms of the performance of the midwives, participating in the research, there was a significant decrease in the number of deliveries without episiotomy.

CONCLUSIONS: According to the results of the study, education and support of midwifery personnel can change the attitude and performance of these individuals in conducting a routine episiotomy, thereby reducing the number of child deliveries without episiotomy.

Keywords: Attitude, episiotomy, support, training, work performances

Introduction

Episiotomy is a surgical incision of the perineum and the posterior vaginal wall to shorten the second stage of labor and facilitate childbirth. One of the goals for the application of episiotomy was improving maternal and neonatal outcomes. This small surgical incision was quickly recognized and used as a substitute for irregular perineal tears in primiparous births. The general belief was that episiotomy repair would be simpler, better, and faster. Meanwhile, Sooklim et al., quoted by Larson, stated that pain and healing of episiotomy were not significantly different from that of spontaneous rupture, and several studies showed that episiotomy does not protect the perineum but increases deep perineal pain and damage. Nonetheless, this process became a routine act for midwives,
physicians, and students after many years of application. In fact, the mean use of episiotomy was reported to be 41.5% in various countries of Asia, which is a statistic significantly higher than the standard set by the World Health Organization. It seems that an unwritten contract resulting from fear of more complications and the atmosphere prevailing on maternity blocks has led to excessive use of episiotomy. In the current era, the rate of episiotomy in primiparous women of Australia and The Netherlands was 17% and 8%, respectively.

Obviously, the attitude of people toward episiotomy is the most important factor affecting their performance, which determines whether they perform this procedure or not. Despite numerous articles on the use of selective episiotomy against routine episiotomy, this approach is still considered the most common gynecological surgery. In a research entitled “The view of delivery by practitioners in routine episiotomy: a qualitative study,” Kaviani et al. reported the main reasons for using episiotomy by midwives to be fear and concern with maternal and fetal damages and clients’ complaints from personnel. Moreover, most midwives consider episiotomy to be a safe approach for reducing complications.

According to Trinh et al., lack of proper education on child delivery without episiotomy was the main cause of excessive use of this procedure. In addition, Wu et al. (2013) conducted a research to determine the factors involved in decision-making of midwives for using episiotomy, indicating that lack of education and fear of maternal and neonatal damage and distress of being blamed by the health-care system were the main causes of using episiotomy in the second stage of labor. This highlighted the importance of attitude and inadequate education in decision-making for performing episiotomy. Education with a workshop approach is defined as practical training in a simulated situation, recognized as an active teaching method. This approach provides a good opportunity for reflection on issues. Moreover, this teaching method and working in small groups can provide an opportunity to express experiences and clarify matters and change attitudes.

On the other hand, midwives encounter unpredictable events in their work environments, the stress of which affects their decision-making power. Therefore, the supportive role of physicians alongside the staff can facilitate professional performance and decision-making power in specific cases. In this respect, Tagharrobi et al. conducted a research in Iran, concluding that the support and alignment of specialists working in the clinical departments have helped the personnel more easily revise their professional performance. It has been reported that being primiparous, high delivery age, high birth weight, and midwife’s high work experience are correlated with performing an episiotomy. Many midwives do not meet the international clinical guidelines for episiotomy. It has been recommended that clinical protocols and training programs are required to change the process of episiotomy. While most midwives believe that lithotomy position can reduce episiotomy, mothers have no such belief. Studies have shown that the causes of many episiotomies in mothers are not evidence based. Age of work experience and educational levels have been the main causes of episiotomy. According to a study, Iranian midwives use episiotomy incision most frequently (88%). Therefore, considering to importance of avoiding unnecessary interventions and reducing the pain and suffering of mothers during and after delivery, changing the attitude of staff in delivery units toward minimizing use of episiotomy is essential. Until then, changing attitudes lead to performance modification. To change the attitude, active teaching methods can be used, including an educational workshop. It seems that the mixing of several active teaching methods such as educational workshop, simulation, and support of personnel may be more effective in changing attitude and performance. Despite the different statistics and the high rate of episiotomy in mothers and the study of complications and various treatments for episiotomy in Iran, no study was found to evaluate the effect of workshop approach on the midwives’ attitude about episiotomy. Therefore, this study aimed to determine the effect of workshop training along with simulation and support of labor practitioners on their attitude and performance in conducting routine episiotomy.

Materials and Methods

This quasi-experimental research had one group and a pretest–posttest design. The research was conducted in Shahid Mobini Educational Hospital of Sabzevar, Iran, in 2017. In total, 50 midwives, 10 gynecologists, and 6 midwifery faculty members work in this hospital. Research population included all midwives, instructors, and physicians of Shahid Mobini Hospital and selected via census sampling with the exception of 10 individuals who were in the work shift. Four participants were eliminated from the study because of lack of participation in educational plan >1 h.

Data collection tools included the demographic characteristic questionnaire and the researcher-made questionnaire on the attitude of the personnel toward the application of episiotomy. The questionnaire composed of an 18-item set in four sections to assess the attitude of the clinical personnel and faculty members toward the use of episiotomy in labor. The first section included four items related to individual factors of the labor practitioners, eight items on attitude of labor practitioners toward maternal and neonatal outcomes related to delivery
without episiotomy, three items on factors related to
the organization, and three factors on factors related to
the parturient. All of these items are scored based on
a six-point Likert scale (from completely disagree = 1
to completely agree = 6). Therefore, the minimum
and maximum scores obtained in this questionnaire
are 18 and 108, respectively, where lower scores are
indicative of weaker attitude, and higher scores show a
high attitude. The score range of the questionnaire is
as follows: 18–49 (weak attitude), 50–79 (moderate attitude),
and 80–108 (high attitude). Content validity was applied
to determine the validity of the tool by providing the
questionnaire for four gynecologists and three midwifery
graduates (faculty members). After making the necessary
revisions, the questionnaire was distributed among
15 participants, who were asked to determine the
ambiguities. In the next stage, the questionnaire was
re-examined by the same four gynecologists and three
midwifery graduates to evaluate the reforms identified
by the participants. In addition, the reliability of the
scale was estimated at the Cronbach’s alpha of 0.85
after providing the questionnaire of attitude toward
episiotomy to 15 midwives.

On the other hand, the demographic characteristic
questionnaire contained five items of age, work
experience, level of education, workplace, and a history
of unpleasant experience in normal natural childbirth
without episiotomy (3rd or 4th perineal-degree tears).
The research was carried in two stages after receiving
approval from the ethics committee (code: IRMEDSAB.
REC.1397.105). In the first stage, all 66 midwives,
physicians, and midwifery instructors were invited to
participate in the research as labor practitioners. First,
the researcher explained the objectives of the study to
the participants and received a written informed consent.
Afterward, the research tools were completed by the
participants, followed by holding a 16-h workshop on
the education of natural childbirth for 2 days by one
of the gynecologists (faculty member) and two faculty
members in the department of midwifery.

In the 1st day of the workshop, the midwives were
divided into small groups (six to seven members), and
one gynecologist and one midwifery faculty member
were allocated to each group. During the workshop, the
experiences regarding delivery with no episiotomy and
relevant advantages and disadvantages were uncovered.
Following that, representatives of groups expressed a
summary of opinions. The workshop was controlled
by a gynecologist, who was also the instructor of the
class. Teaching was carried out in the form of a lecture
and a question and answer session on application of
episiotomy, advantages and disadvantages of labor
without episiotomy, differences between routine and
selective episiotomy, and the latest statistics, findings,
and approaches in the world. In the 2nd day of the
workshop, the skill of natural childbirth was taught
in clinical skills center using mannequins. In addition,
special cases that require episiotomy and the proper time
of performing this process were taught.

In the end, all participants practiced the skill of
labor without episiotomy in a simulated situation
and with the guidance of an instructor. At the end
of the workshop, head of the maternity unit pointed
out the supportive role of physicians in the use of
episiotomy, expressing her support of childbirth without
episiotomy in primiparous women. It is worth noting
that the workshop was held in the conference hall of
Shahid Mobini Hospital and clinical skills center of
the mentioned hospital for 2 days during 8:00–16:00.
These locations and times were specifically selected
so that all participants could attend the sessions. After
the educational-justification program (workshop and
simulation in clinical skills center), the questionnaire
of attitude toward labor without episiotomy was
completed by midwives, gynecologists, and midwifery
instructors 3 months later. The frequency of delivery
and the labor procedure were evaluated five times,
and the results were reported in order to assess the
performance of physicians and midwives to determine
the effectiveness of the intervention at 3-month intervals.

Data analysis was performed in SPSS version 21
(developed by IBM cooperation, Armonk, NY, United
States of America) using paired t-test and Pearson’s
correlation test to compare the mean scores before and
after the intervention and assess the association between
the scores and demographic characteristics. In addition,
$P = 0.05$ was considered statistically significant.

**Results**

In this study, the majority of the participants were
midwives ($n = 40, 76.9%$), whereas eight participants ($15.4%$)
were midwifery graduates (instructors) and four
individuals ($7.7%$) were gynecologists. In addition,
the age range of the participants was 22–52 years with
a mean age of 30.85 ± 6.8 years. Moreover, the mean
work experience of the participants was 5.98 ± 0.86,
and the highest work experience was 1–3 years,
which reported for 28 participants ($53.9%$). In terms
of the level of education, most of the participants had
a BSc ($n = 38, 73.1%$). Furthermore, the majority of
the participants were working in the maternity ward
($n = 38, 73.1%$). In total, 42 participants ($80.8%$) did not
have an unpleasant experience.

Mean attitude of the participants toward episiotomy
was $50.5 ± 1.58$ before the intervention, which changed
to $61.18 ± 2.5$, showing a significant difference between
the attitude before and after the intervention using paired t-test \((P < 0.001)\). In addition, there was a significant difference in the dimensions of attitude (i.e., maternal and fetal aspects and labor practitioners) before and after the intervention, in a way that mean attitude toward episiotomy changed from 24.31 ± 0.84 to 29.35 ± 1.43 in the maternal aspect \((P < 0.002)\), from 6.22 ± 0.26 to 7.1 ± 0.27 in the fetal aspect \((P < 0.003)\), and from 20.1 ± 0.67 to 24.7 ± 1.36 in the dimension of labor practitioners \((P < 0.001)\) [Table 1].

Pearson’s correlation test showed no significant relationship between the attitude toward episiotomy before and after intervention with the variables of ages, work experience, level of education, workplace, and unpleasant experience \((P > 0.5)\). The research was conducted in April 2017, and the ratio of episiotomy to the total childbirths in the mentioned month was 169–525 (32.19%), which gradually decreased in the following months, in a way that by following up the performance of the personnel in the first 3 months of 2018, the ratio of episiotomy to total childbirths reduced to 18.08% [Table 2].

### Discussion

In the present study, education with workshop approach was able to change the attitude of midwives toward episiotomy in childbirths, in a way that the attitude of midwives toward this process improved in three aspects of maternal and fetal damages and labor practitioners. There was a significant decrease in the mean episiotomy performed by the personnel 1 year before and after the intervention using \(t\)-test \((P < 0.001)\). In addition, there was a significant decrease in the mean episiotomy performed by the personnel 1 year after workshops. Baghdari et al. conducted a research to compare the effect of student-centered educational approaches on knowledge and attitude of midwifery students toward delivery of bad news to patients, reporting a significant difference in the score of the attitude of students after education with role-playing in the form of workshops.\(^6\)

Moreover, the performance score of individuals improved after the education of breaking bad news with a workshop approach.\(^14\) Despite different study populations, our findings are in line with the results obtained in the aforementioned study. This demonstrated that workshop training as one of the active student-centered educational approaches, which emphasizes education in simulated environments and student–instructor interaction, could provide the opportunity to practice and repeat and use the experiences of others by students.

In the current research, it was shown that training by workshop method changed the attitude and performance of the personnel of the maternity block toward episiotomy and significantly reduced the number of episiotomies performed. Similarly, Modarres et al. compared the effect of two methods of the workshop and an educational booklet on the interpersonal communications of individuals, observing an increase in this factor after 2 months of education by the mentioned techniques. However, the score of interpersonal communications was higher in the workshop group 3 days after education, compared to the educational booklet.\(^15\)

Moreover, Borhani et al. conducted an experimental study with a 2-day workshop approach and a 2-month follow-up, marking an increase in the ethical sensitivity of nurses after the educational workshop.\(^16\) In another study by Zangibadizade et al., two active educational methods (multimedia education and role-playing) were compared. According to their results, both educational approaches increased the knowledge and attitude of midwifery students toward natural childbirth, causing an improvement in their knowledge and attitude immediately and 6 weeks after education.\(^17\) Similar results were obtained by Abedian et al., who observed that education via role-playing more enhanced the knowledge and attitude of primiparous women toward the type of delivery, compared to the educational method of lectures.\(^18\) This shows that holding workshop affects ethical learning, which is a type of shift of attitude.
Therefore, it could be concluded that educational workshop can change the attitude of individuals toward a specific issue (e.g., episiotomy).

According to the results of the present study, the performance of midwives improved regarding the decrease of episiotomy. In this regard, results obtained by Hamann et al. indicated that educational workshop could be a practical guide on intellectual health in the clinical environment.[19] It could be observed that educational workshops are one of the common methods used for transfer of information and skills. One of the important issues in learning through workshops is the reflection of learners on new topics for deep learning that occurs in small groups.[10]

In a review study, Cooper et al. (2012) evaluated 22 articles on the education of midwifery, concluding that specialized training in the field of midwifery knowledge and skills through comprehensive and simulated education can strengthen the critical thinking of midwives by enhancing their ability in clinical decision-makings. This research demonstrated that simulated educations could improve the attitude and performance of midwives in the management of emergency cases, such as controlling bleeding after delivery, carrying out delivery, and managing labor dystocia.[14] In educations related to midwifery after rejecting the indication of performing an episiotomy, the final decision for using or lack of using this process has always been made by the labor practitioners. The level of episiotomy significantly decreased in the current research by increasing the knowledge of participants and teaching accurate techniques through workshops and simulation.

One of the major limitations of the present study was lack of a control group and evaluation of the performance of learners in the form of a general statistic in their workplace, which focuses on just one specialty. In this regard, the statistics of performing episiotomy were evaluated using hospital indicators, and the performance of individuals was not assessed individually.

**Conclusions**

In general, the supportive educational course on childbirth without episiotomy changed the attitude of the participants and led to the change of their performance. This can reduce the complications associated with episiotomy, which was performed in many cases with no indication. It is suggested that special attention should be paid to staff education with active method. In addition, it is recommended that hospital officials investigate unnecessary interventions such as episiotomy, and if it is high, they will conduct workshops in combination with simulation and support to minimize this problem. In this study, one of the constraints was the lack of a control group to compare the results. Therefore, it is recommended that future studies be designed in two groups, in order to confirm the effectiveness of manipulation by the recent study.

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**Conflicts of interest**

There are no conflicts of interest.

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