

Quality of Labor Support during Labor

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ABSTRACT

Introduction: Providing appropriate and quality care for delivery process can be done in the form of the "Labor Support". This approach is one of the key factors in reducing maternal and neonatal mortality rates and fulfilling the Millennium Development Goals. It has also an important role in the promoting maternal satisfaction. This study aims at assessing mothers' view regarding the labor support quality.

Materials and Methods: In this cross-sectional study, 100 women who were hospitalized in the postpartum ward of Gonabad 22 Bahman Hospital, and had normal vaginal delivery were chosen using convenience sampling method. Participants were asked to fill in the demographic questionnaire and the form of assessment quality of labor support. Data analysis was performed by SPSS11.5 software.

Results: In this study, the data showed a mean participants' age of $27/14 \pm 5/89$ years and a mean admission-delivery time interval of $305/13 \pm 147/30$ minutes. Results showed that 74 percent of women evaluated the emotional support as good, 93% of the women had reported that they are satisfied with physical support, and 92 percent of the participants had expressed that they were content with the instructions/information provided by the personnel.

Conclusion: According to this study, overall satisfaction from the quality of labor support has been acceptable in Gonabad 22 Bahman Hospital. Emotional supports stood lower when compared in terms of quality to two other categories.

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Introduction

The concept of quality management and, in particular, the quality of management during labor has recently been investigated extensively by the international health related organizations. Deficiencies in this field have been regarded as the major responsible factors hindering our reaching the fourth and fifth Millennium Development Goals (MDGs), i.e. Infant Mortality Rate and Maternal

Mortality Ratio (1). Most perfect managements during labor can be achieved through labor support.

Labor Support is addressed to the processes of supporting the women and providing her with complete protection in labor (2). We can classify the different techniques used in this process in three categories: Emotional Supports, Physical Supports, and Instructions/Information. Emotional Supports

comprise respecting, maintaining an appropriate attitude towards woman, addressing her by her name, attempting to reduce her pain and anxiety, boosting her self-confidence, working on her gently, and distracting her during painful contractions which will help her go through the process with more ease(3). Physical Supports include pain-alleviation techniques, encouraging her to wash her hands and maintain her oral hygiene, changing clothes and sheets, repositioning the patient, providing her with back massages, and oral feeding (3). In instructions/information, we provide the parturient with certain information which aid to reduce her anxiety and help her cope with the process of labor more easily (3). Numerous studies have shown that labor supports carried out by a professional will reduce the unfavorable maternal and neonatal consequences (4-6).

In a systematic review done by Hodnett and colleagues in 2011, labor support proved to be associated with a decrease in Cesarean Section frequency, amount of needed local anesthesia, and labor length(7). In a qualitative study carried out using grounded theory method in Canada which aimed at explaining the main approach of women and professional staffs to labor support, "minimizing the risk while maximizing integrity" was chosen as the main category(8).

It is commonly accepted that during the stressful process of labor, supporting the parturient will increase the level of woman satisfaction and a skillful midwife as the labor supporter may help the woman pass this stressful situation more easily(9).

However, some studies have shown that professional staffs tend not to pay enough attention to this important subject. Payant reported that 40% of the nurses in labor ward-did not have sufficient knowledge regarding the labor support benefits (10). Similar studies conducted in Iran have demonstrated that the labor supports are unfavorable, with the quality of labor support assessed to fall in the moderate range (11-12).

All these facts considered, labor support plays a very important role in reducing maternal mortality ratio and neonatal mortality rate and it is also very influential on the shaping of mother's experience from delivery. This study was carried out to investigate the quality of labor supports from the women's' viewpoint, aiming to achieve valuable data for improving this health service.

Materials and Methods

This cross-sectional study was conducted in 22 Bahman Hospital of Gonabad in north east of Iran in 2004. The sample size was estimated according to

the study by Mackey and colleagues which reported the satisfaction rate of women from labor support receiving during labor around 90%(13). Sample size was calculated to be 99.8 cases using prevalence estimate formula with a confidence interval of 95%, a statistical power of 84%, and $d=0.08$. So, 100 postpartum women selected using convenience sampling were enrolled in our study.

All the cases had normal vaginal delivery, had been hospitalized for at least 120 minutes in the delivery block, and had given birth to healthy neonates. None of the participants were the hospital staff or their relatives, and none of them had complications during labor. It must be noted that in our study, undergoing induction has not been regarded as an exclusion criterion.

Questionnaires on demographic information and labor support quality were used for gathering data.

Demographic questionnaire included some questions about the demographic information, reproductive and obstetric history, and information regarding her recent delivery information. The labor support quality questionnaire had been designed by the researcher and the items were classified in three categories of emotional support, physical support, and instructions/information. Emotional support section had 13 items and was scored using 5-points Likert scale (very good, good, mediocre, bad and very bad). The scores ranged from 13 to 65 and were later classified by 3 levels of fine, mediocre, and weak. The section on physical support included 14 items and was evaluated using the same scale.

The scores fell between 14 and 70 and were classified, like the previous section, by three groups of fine, mediocre, and weak.

Instructions/information section consisted of 14 items, and was handled with the Likert scale. The scores range was similar to the physical support section and was managed likewise. The validity of labor support questionnaire was confirmed using content validity under supervision of 15 board members and specialists. The questionnaire reliability was confirmed with Test-Re-test which was carried out on 15 parturients within a 10 day interval ($r=0.79$).

For data collection, the researchers had daily visits to the postpartum ward where the forms were to be filled in; selecting the participants based on inclusion and exclusion criteria as previously mentioned. Informed consent had been obtained from the participants after explaining the study goals, and then they were asked to complete the two questionnaires. The questionnaires had been filled in between 4 to 24 hours after the delivery.

The midwives and other staffs of labor ward were unaware about our study aims and the participants were visited in the postpartum ward located rather remote from labor ward. SPSS_{11.5} software was used for data analysis. The quantitative and qualitative variables were reported as mean \pm SD and number (percentage), respectively.

Results

The findings show that Mean \pm SD of participant's age was 27.14 ± 5.89 years, education was 9.44 ± 4.48 years, the number of previous pregnancies were 2.13 ± 1.32 , the number of previous deliveries were 1.95 ± 1.16 , the gestational age was 39.39 ± 1.68 weeks, the interval of Admission to Delivery was 305.13 ± 147.30 minutes.

The remaining variables like mother's occupation, location of residence, unintended/intended pregnancy, participation in instructive courses during pregnancy, and the women's attendance have been summarized in Table 1.

According to the results, the emotional supports achieved a score of 40.83 ± 6.05 . Fine, mediocre and weak scores had frequencies of 74%, 25%, and 1%, respectively. Table 3 summarizes the parturients' viewpoints on emotional support 13 items.

Participants' viewpoints regarding emotional supports have been summarized in table 2.

The physical support gained a score of 51.28 ± 5.42 .

Fine, mediocre, and weak score frequencies were 93%, 7%, and 0. Table 4 summarizes the scores of each of the 14 items. Participants' viewpoints regarding physical support have been summarized in table 3.

In case of instructions/information, a score of 49.69 ± 4.93 was reported. 92% of the participants evaluated the support as "fine" and the remaining 8% thought they were mediocre. Participants' viewpoints regarding instructions/information have been summarized in table 4.

Table 1: Frequency distribution of cases according to certain demographic data

Demographic Variable		Number (%)
Occupation	housewife	88(88)
	employed	12(12)
Residence	city	53(53)
	village	47(47)
Pregnancy	intended	81(81)
	unintended	19(19)
Participation in instructional courses during pregnancy	yes	55(55)
	no	45(45)
Woman's attendance	midwife	27(27)
	gynecologist	26(26)
	student of midwifery	47(47)

Table 2: Frequency distribution of parturients viewpoints on offered emotional supports during labor

Emotional Support	very good Number (%)	good Number (%)	Mediocre Number (%)	bad Number (%)	very bad Number (%)
Satisfaction with the reception by the professional staffs during admission	14(13.9)	53(52.5)	33(32.7)	0(0)	0(0)
Satisfaction with the provided privacy during vaginal examination	7(9.6)	25(24.8)	35(34.7)	29(28.7)	4(4)
Satisfaction with the staff's manners	15(14.9)	53(52.5)	26(25.7)	5(5)	1(1)
Satisfaction with the response to their demands	11(10.9)	56(55.4)	24(23.8)	6(5.9)	2(2)
Staffs' attention to the patient's conditions and concerns and soothing	8(7.9)	42(41.6)	43(42.6)	5(5)	1(1)
The quality of explanations on the process provided by the midwives	7(6.9)	37(36.6)	38(37.6)	15(14.9)	1(1)
Satisfaction with the staffs' friendly tune while being talked to	16(15.8)	59(58.4)	17(16.8)	7(6.9)	1(1)
Explaining the necessity and importance of vaginal examination	6(5.9)	27(26.7)	41(40.6)	21(20.8)	0(0)
Satisfaction with the environment privacy (i.e. room)	3(3)	24(23.8)	37(36.6)	36(35.6)	0(0)
Satisfaction with being given explanations regarding the labor progress	5(5)	52(51.5)	35(34.7)	5(5)	1(1)
Being properly addressed by their last name	11(10.9)	43(42.3)	31(30.7)	9(8.9)	4(4)
Quality of support provided by the midwife during active "pushing"	17(16.8)	61(60.4)	17(16.8)	2(2)	3(3)
Satisfaction from being treated friendly by midwives	17(16.8)	56(55.4)	25(24.8)	1(1)	0(0)

Table 3: Frequency Distribution of Participant's Viewpoints Regarding Physical Supports during Labor

Physical Support	Very Good Number (%)	Good Number (%)	Mediocre Number (%)	Bad Number (%)	Very Bad Number (%)
Labor room hygiene	12(12)	64(64)	24(24)	0(0)	0(0)
Labor room bed comfort	7(7)	55(55)	32(32)	4(4)	0(0)
Labor room ventilation	4(4.04)	43(43.43)	48(48.48)	4(4.04)	0(0)
Labor room calm	5(5.05)	42(42.42)	43(43.43)	9(9.09)	0(0)
Delivery room hygiene	9(9)	59(9)	31(31)	1(1)	0(0)
Restrooms hygiene	8(8.16)	55(56.12)	30(30.61)	5(5.1)	0(0)
Help received from the personnel in leaving the bed	12(12.12)	54(54.54)	24(24.24)	7(7.07)	2(2.02)
Help received from the personnel when walking	3(3.92)	42(46.15)	36(39.56)	7(7.69)	3(3.29)
Helping the woman with her positioning on the delivery bed	11(11)	62(62)	22(22)	5(5)	0(0)
Changing dirty bed sheets and Clothes	13(13.29)	50(51.02)	34(33.7)	1(1)	0(0)
Providing the facility for washing face and hands	8(7.9)	47(46.5)	35(34.96)	6(6.12)	0(0)
Postpartum room hygiene	10(10.02)	57(58.16)	29(29.59)	2(2.04)	0(0)
Room Condition in terms of a favorable repose	10(10.01)	58(58.58)	29(29.29)	2(2.02)	0(0)
Help received while being transferred from the labor room to the delivery room	15(15.15)	58(58.58)	22(22.22)	4(4.04)	0(0)

Table 5: Frequency distribution of women's viewpoints regarding the provided instructions during labor

Instruction/Information	Very Good Number (%)	Good Number (%)	Mediocre Number (%)	Bad Number (%)	Very Bad Number (%)
Instructions Regarding the Labor stages	10(10)	58(58)	30(30)	2(2)	0(0)
Explaining the Therapeutic Procedure	10(10.10)	31(31.31)	55(55.55)	2(2.02)	1(1.01)
Instruction on Proper Respiration	9(9.09)	67(67.67)	20(20.20)	3(3.03)	0(0)
Explanations after Vaginal Examination	9(9.27)	43(43.32)	38(39.17)	7(7.07)	0(0)
Instructions on the necessity of bladder voiding	5(5.01)	53(53.53)	32(32.65)	8(8.08)	0(0)
Instructions on proper Positioning in the Labor room	9(9.18)	55(55.55)	30(30.30)	4(4.04)	0(0)
Instructions on necessity of Artificial Rupture of Membranes	6(6.45)	40(43.01)	42(45.16)	5(5.37)	0(0)
Instructions on proper "pushing"	11(11.22)	61(62.24)	22(22.44)	4(4.04)	0(0)
Information on the labor progress	5(5.05)	70(70.07)	22(22.22)	2(2.02)	0(0)
Explaining the necessity of episiotomy	8(9.09)	21(23.86)	37(42.04)	20(22.72)	2(2.72)
Proper Explanations during episiotomy repair	9(9.18)	42(42.85)	36(38.73)	11(11.22)	0(0)
Instructions on the proper caring of the episiotomy sutures	4(5.06)	37(46.83)	25(31.64)	13(16.45)	0(0)
Instructions on the proper breast feeding techniques	14(14.28)	49(50)	29(29.59)	6(6.12)	0(0)
Instructions on postpartum Hygiene	10(10.41)	46(47.91)	29(30.20)	9(9.37)	2(2.08)

Discussion

This study shows that the emotional support, physical support, and instructions/information have been evaluated as "fine" in 74%, 93%, and 92% of the participants, respectively. So in the large scale, we can say that the labor support quality has been "fine". Omidvar and colleagues conducted a similar study on primigravidae and multigravidae in Mashhad hospitals, in which both groups evaluated the qualities of physical and emotional supports as "mediocre" (12). In a study on the ethical aspects of labor support conducted in Tabriz by Naghizadeh and colleagues, the mothers' level of satisfaction was reported low (14). The observed difference in the results of these two studies and ours may be attributed to the differences in culture and the level of expectations of women in these cities.

In a similar study in Kurdistan, the results demonstrated that the emotional supports in the first stage of labor had the lowest quality while emotional support in second stage of labor, third stage of labor, and 2 hours postpartum have all been reported to be mediocre (11). Likewise, Simbar claims in a quotation from Najafabadi (1999) that intrapartum support has had a lower quality compared to the prenatal care and postpartum

management in the city of Tuyserkan (11). It must be noted that in these two studies, the support quality had been evaluated by the researchers themselves and the parturients' viewpoints had not been taken into account.

Tamburlin and colleagues used a standard 400 item tool to study maternal/neonatal support quality and gathered information from 10 hospitals in Albania, Turkmenistan, and Kazakhstan in 13 different aspects. The support quality in all 13 aspects were evaluated below the standards, and the labor support came last with lowest score (2).

In cases of details regarding labor support, our study showed that 52.5% of women have been satisfied with the midwife manner and their attitude at time of admission. In a study by Naghizadeh which aimed at investigating the communication skills of midwives, the women's satisfaction from verbal and non-verbal communication skills of the midwives were 50% and 48.4%, respectively (14).

The result of these two studies magnifies the significant problems at hand in how staffs interact with parturient. In a study by Ahmadi and colleagues, the quality of communication skills was proved to be even lower. According to the results of

this study which investigated the medical student's communication skills in Tehran hospitals labor wards, 84.87% of the students had not greeting to the parturient in their encounters, 91.22% of the students had not greeted the parturient appropriately, and none had properly introduced themselves to the parturient (16). These significant differences in the results can be due to the different care providers, as in Ahmadi's study, the students were assessed and their lack of experience may be responsible the poor quality support observed.

According to our results, 84.2% of the women have found the level of encouragement and assurance they had received from the midwives to be "fine" or "moderate". In a similar study in Tehran, 85.86% of the midwives have made proper eye contact with the women and 74.83% had treated the women wholeheartedly (16). In one other study Simbar reported 76% of women were satisfied with the caring they received from midwives' in attending to their needs (11). These results are pretty much consistent with ours.

In our study, only 24.8% of participants assessed the level of privacy during vaginal examination as "fine" and this item achieved the lowest score amongst all. In Kurdistan, the women's satisfaction from privacy during examinations has been around 75 % (11).

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The most important limitation of our study was that we had to trust the participant's opinion in evaluating labor support quality and that the subjects might have changed their opinions in favor of the researchers. To reduce the effect as much as possible, we made sure to have the participant fill in the questionnaires alone in a private room.

Conclusion

The results of our study demonstrate that the overall quality of labor support in 22 Bahman Hospital of Gonabad labor ward has been fine. The results are more satisfying than what had been previously reported from other cities of Iran.

However, the quality of some categories of labor supports is non-satisfactory and more attention from the women attendance and the authorities may be needed for improvement.

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