

ORIGINAL ARTICLE

EXPECTATIONS OF POST-PARTUM CARE AMONG PREGNANT WOMEN LIVING IN THE NORTH OF SWEDEN

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ABSTRACT

Objectives. To describe expectations of post-partum care among pregnant women living in the north of Sweden and whether personality determines preference for care systems. The time for post-partum care on maternity wards has been reduced in Western countries. This, along with the reduction in special medical treatments offered and the closure of small hospitals has affected pregnant women and their families.

Study Design. Data was extracted from a questionnaire and a personality instrument (SSP) that were completed during November 2002.

Methods. In the northernmost county of Sweden, 140 pregnant women completed the questionnaire; of these, 120 completed the SSP instrument.

Results. Of the women who participated, 61.3% wanted to be discharged 72 hours after childbirth, irrespective of the distance between the hospital and home. To have access to maternity ward staff and the decision to be discharged were described as being the most important issues in maternity ward care. The infant's father was expected to be the most important person in the post-partum period.

Conclusions. Women ranked the opportunity to decide for themselves when to be discharged from the maternity ward as important, which can be interpreted as a strong signal that the women want to be in control of the care they receive. Midwives have to focus more on the woman and her family's individual needs, and to include the father as a person who also needs support and to provide resources for him.

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INTRODUCTION

The amount of time for post-partum care on maternity wards has been considerably reduced in Western countries (1). Discharge within 3 days for a healthy mother and child following a normal birth is most often the case, despite the fact that criteria for early discharge varies between clinics and countries (2–4). The general case in Sweden is a length of stay of 2 to 5 days, following normal childbirth, with an average in the northernmost county of 2 to 6 days post-partum (National Board of Health and Welfare, Milla Bennis, 2006, personal communication).

In the mid-1980s, early discharge after hospital birth was evaluated and introduced in Sweden in order to facilitate more family-oriented post-natal care (4). Since then, additional changes have been made within the Swedish health care system that has also had an overt influence on post-partum care in the hospital setting. These include a reduction in the number of special medical treatments offered and the closure of many small hospitals within each county (5). Between 2001 and 2002, 3 out of 5 maternity departments have been closed in the northernmost county. As this region is partially rural, questions remain about the impact such changes have made on expectations the population have for post-partum care, given the longer distances to reach the hospital and the shortened length of stay, as well as how the reduction of maternity departments has affected pregnant women and their families emotionally and practically.

At present, maternal and post-partum care in Sweden can take place either on traditional maternity wards or on wards situated close to the hospital (which have a homelike environ-

ment with the support of a midwife), at patient hotels (daytime rooms with medical care available) or in early discharge systems. Maternity care is organized by hospitals at the county level and includes a system of midwives who act as primary caregivers for the mother, while pre- and post-natal and child health care are under the jurisdiction of community primary health care centres that maintain a primary care nurse as the key contact person for the mother and family (6,7). The organization of post-partum care varies across the country, but most often includes follow-up visits to the maternity ward and/or home visits from the maternity ward midwives or midwives working in early-discharge teams. Within some areas of Sweden there are no follow-up visits (6).

Studies focusing on needs in the post-partum period found that breastfeeding and baby care were of great concern, especially for primiparae (8–10), while multiparae had more concerns relating to life-style and relations within the family due to the new family member (9,10). Studying parental needs for care, Persson and Dykes (11) and Fredriksson et al. (12) found that the kinds of care parents valued most was the kind that respected the families'/parents' experiences and that made available the necessary resources for handling their new role as parents. Other important issues were continuity of care during the post-partum period (13–16), as well as practical and emotional support (17).

Media and the Internet are sources of information that parents often use before arriving at the maternity department (18). Such acquired knowledge leads parents to have expectations and to make demands on caregivers during and after childbirth. As they are also familiar with information and communication technology,

these formats provide an accepted and even attractive alternative or complement to early-discharge systems.

Studies focusing on the need for new models of care to improve birth outcomes show that special conditions prevail in the provision of post-partum care in rural areas (19–21). Considering the situation in northern Sweden, with a reduction of maternity departments, longer distances to care and shortened hospital stays, questions are being raised to determine if these circumstances have affected women's expectations for post-partum care on the maternity ward and after discharge from the hospital. Another question raised is if women in this area are more stressed and anxious due to the structural change, and whether this determines their preference for care systems.

The aim of this study was to describe expectations for post-partum care among pregnant women living in the north of Sweden and whether personality determines preference for care systems.

MATERIAL AND METHODS

During November 2002, all pregnant women visiting the prenatal clinics within the northernmost county of Sweden were informed about the study. The region, covering about 25% of Sweden's land mass is characterized by both densely and sparsely populated areas, with a total of 252,856 inhabitants (22). Midwives working at prenatal clinics assisted in the recruitment of pregnant women for the study and distributed the questionnaires with addressed envelopes. The inclusion criteria were that the women must be able to read and write Swedish, be between 36 + 0 and 37 + 6

weeks of pregnancy, and must be diagnosed as having an uncomplicated pregnancy and be expecting an uncomplicated delivery.

The sample size in this study consisted of 10% of expected pregnancies/childbirths during one year. There was no power calculation on sample size, as the aim of the study was to clarify descriptions of expectations and not to detect differences in them (23). Of the 149 women who fulfilled the criteria, 9 declined to participate, mostly because they did not have the time. The remaining 140 (94%) women (primipara, n=54 and multipara n=85, one woman did not answer the question) completed the questionnaire, although some of them did not answer all the questions. However, no systematic pattern was found in the missing data/responses. An instrument, the Swedish Universities' Scales of Personality (SSP), was attached to the questionnaire and completed by 120 of the 140 participants. Some women who did not completely fill out the questionnaire commented that it was too demanding to also answer questions on the SSP instrument.

Data collection

Questionnaire and instruments

The questionnaire had 4 questions about sociodemographic data and obstetrical background (items 1–4), 17 questions about expectations of post-partum care regarding support to breastfeeding, childcare, physical and psychological recovery, the family's presence while still at the ward and time for discharge (items 5–21). There were 11 questions about social support and support from the maternity, child and patient health care systems after discharge (items 22–33) and 2 questions concerning expectations of support from information and communication technology (items

34–35). Using a 4-point response format, the women were also asked to assess the importance of different modes of care and support. The possible categories were grouped as very important, fairly important, not particularly important and not important at all. For the question, “When should women be discharged from the maternity ward?” the selection alternatives were after 6, 24, 48, 72 or 120 hours. For the information and communication technology question, “If videoconferencing (between the maternity ward and the patient’s home) were available, would this influence time of discharge from the maternity ward?” the response alternatives were “Yes” and “No.” Variables were rated on nominal, ordinal and ratio levels.

The SSP is a validated, 91-item instrument divided into 13 scales and is used in studies that investigate the complicated relationship and interaction between individual differences in personality and such biological bases as behaviour, affectivity and functioning (24). The present study utilizes three of the scales to investigate whether pregnant women living far from the hospital were more stressed than those living close by (e.g., were women participating in the study more stressed than the normative drawn sample which the instrument was evaluated on?). This could have been a confounder when analysing the variable “distance to the hospital.” Somatic anxiety describes people who have psychological and somatic symptoms, such as autonomic disturbance, restlessness and tenseness. Psychic anxiety describes people who are sensitive and easily hurt and who worry, anticipate and lack self-confidence. Stress susceptibility describes people who are easily fatigued and who feel uneasy when they need to speed up (24).

Statistical analysis

SPSS® version 11.0 was the statistical software used to analyse the data. Descriptive statistics, such as frequencies and means, were calculated. Cross tabulation with the chi-square test was used for dichotomous data and the Pearson product moment correlation was used to analyse correlations between the questionnaire and the SSP instrument. A *p* value of 0.05 or less was considered statistically significant. In Table I and II an overall *p* value is presented.

Validity and reliability

The questionnaire was developed by the investigators, two of whom had experience in clinical maternity care (face validity). All investigators had experience in research within the field (25). Studies concerning parental needs after childbirth (8,26,27) guided the development of the questionnaire, which was piloted by two newly delivered mothers and an external researcher before data collection. Three of the questions were reformulated in line with recommendations made by those participating in the pilot study (25).

The SSP instrument was evaluated in a normative, randomly drawn sample with inter-item correlations ranging from 0.17 to 0.43; Chronbach’s alpha ranged from 0.59 to 0.84 (24). The SSP instrument had been used earlier to investigate if traumatic birth experiences could have an impact on future reproduction (28), and to explore the relationship between hormones and personality traits in women after vaginal delivery or Caesarean section (29).

Ethical considerations

The women consented to participate as they voluntarily completed the questionnaire while

visiting the prenatal clinic. To ensure confidentiality, the participants were provided with stamped, addressed envelopes in order to mail the completed and anonymous questionnaires directly to the primary investigator (IL). Approval for the study was obtained from the director of primary health care and the director of maternity care within the regional health authority and the Ethics Committee at Luleå University of Technology.

RESULTS

Demographic data, obstetrical history and personality

The mean age of the participants in the study was 29.2 years (primipara 27.1 years and multipara 31.4 years). The distance between the women's homes and the nearest hospital with a maternity department ranged from <10 km up to 250 km, with a mean of 67.9

km (Md=65 km) (Fig. 1). Among the women, 24.4% (primiparae 7.3%, n=9 and multiparae 17.1%, n=21) reported having had one miscarriage or a stillborn child, 4.1% had had 2, and 6.5% of the women had had 3 or more miscarriages/stillbirths.

No statistically significant differences were found in the analysis of the SSP instrument between women in this sample and the population in general, on which the SSP instrument is based. No correlations were found between the variables in the SSP instrument; somatic anxiety, psychic anxiety, stress susceptibility and the variables related to the "optimal time for discharge," that is, "to stay as long as I want to," "having the possibility of an early discharge" and "time for discharge."

Distance and expectations of care

The variable "distance" (from the participant's home to the closest hospital) was divided into quartiles, from the Md of 65 km

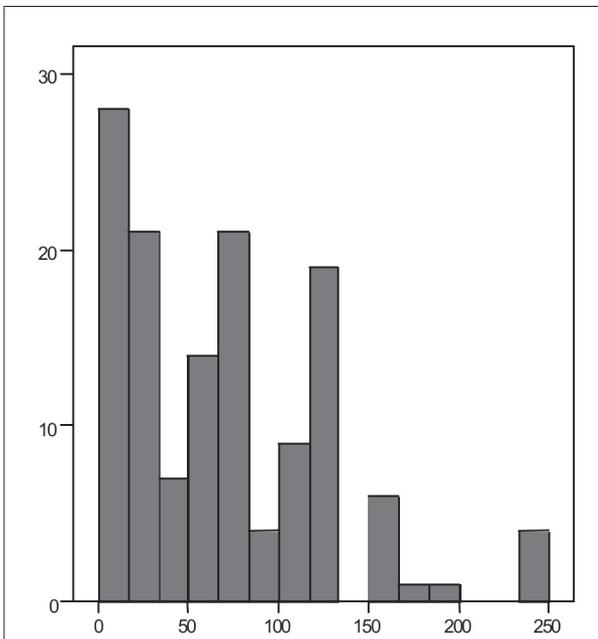


Figure 1. Distance between the women's homes and the closest hospital with a maternity department (n = 135).

(Table I). The result of item 17 shows that the majority of women (61.3%), irrespective of the distance from home to the hospital, wanted to be discharged 72 hours after the birth. A small proportion of women (19.0%) wanted to be discharged from the hospital 48 hours after childbirth (primiparae 20.8% and multiparae 17.9%), and 9.4% after 24 hours. Another

10.2% wanted to be discharged 120 hours after childbirth.

No statistically significant difference was found between women living more than 110 km from the hospital (fourth quartile) and those who lived closer, with regard to the importance of variables concerning expectations of post-partum care support from the maternity,

Table I. Expectations of care in the post-partum period, estimated as important in relation to distance between home and the delivery hospital (item 5–16 and 22–33).

Items graded as important	Distance from home to the hospital (km)				Total n=135 n (%)	p-value*
	0–20 n (%)	21–65 n (%)	66–110 n (%)	111–250 n (%)		
Having support when breastfeeding	38 (90.5)	26 (96.3)	30 (88.2)	28 (87.5)	122 (90.4)	0.666
To be able to sleep at nights (n=134)	24 (57.1)	17 (63.0)	20 (60.6)	20 (62.5)	81 (64)	0.956
Having access to health care staff	42 (100)	26 (96.3)	34 (100)	32 (100)	134 (99.3)	0.258
Having a single room	34 (81.0)	26 (96.3)	28 (82.4)	26 (81.3)	114 (84.4)	0.303
Having a TV in the room (n=134)	14 (33.3)	10 (37.0)	11 (33.3)	4 (12.5)	39 (29.1)	0.124
Having a telephone in the room	30 (71.4)	25 (92.6)	23 (67.6)	22 (68.8)	100 (74.1)	0.103
Staying at the maternity ward “as long as I want to”	39 (92.9)	26 (96.3)	33 (97.1)	30 (93.8)	128 (94.8)	0.833
Having the possibility of an “early discharge”	28 (66.7)	15 (55.6)	23 (67.6)	18 (56.3)	84 (62.2)	0.620
Having information about breastfeeding (n=133)	36 (85.7)	23 (85.5)	29 (85.3)	26 (83.9)	114 (86.7)	0.969
Having information about physiological change	30 (71.4)	21 (77.8)	28 (82.4)	25 (78.1)	104 (77)	0.724
Having information about psychological change	31 (73.8)	20 (74.1)	25 (73.5)	22 (68.8)	98 (72.6)	0.957
Having information about childcare	37 (88.1)	25 (92.6)	26 (76.5)	24 (75.0)	112 (83)	0.172
Having information about infant behaviour	36 (85.7)	23 (85.2)	26 (76.5)	26 (81.3)	111 (82.2)	0.728
Having a post delivery talk	40 (95.2)	23 (85.2)	34 (100)	31 (96.9)	128 (94.8)	0.065
Having the family staying on the maternity ward	33 (78.6)	26 (96.3)	29 (85.3)	28 (87.5)	116 (85.9)	0.225
Having visits from relatives and friends	28 (66.7)	23 (85.2)	25 (73.5)	26 (81.3)	102 (75.6)	0.285
Having a midwife coming for a home visit	23 (54.8)	15 (55.6)	15 (44.1)	17 (53.1)	70 (51.9)	0.771
Having a nurse from the child health care clinic coming for a home visit (n=134)	29 (70.7)	21 (77.8)	23 (67.6)	19 (59.4)	92 (68.7)	0.489
Having telephone support from a midwife at the maternity ward	29 (69.0)	22 (81.5)	22 (64.7)	22 (68.8)	95 (70.4)	0.532
Having telephone support from the child health care nurse (n=134)	35 (85.4)	26 (96.3)	29 (85.3)	26 (81.3)	116 (86.6)	0.380
Visiting the child health care clinic (n=134)	41 (97.6)	27 (100)	32 (97.0)	32 (100)	132 (98.5)	0.648
24-h telephone support (n=134)	25 (61.0)	23 (85.2)	27 (79.4)	22 (68.8)	97 (72.4)	0.115

* p values from Pearson chi-square when appropriate.

child and patient health care system (Table I). When controlling for age, parity and miscarriage/stillborn infants, with distance as the dependent variable, no statistically significant correlation between the above-mentioned groups was found.

Expectations of care in the maternity ward

Questions using attitude scales were dichotomized by merging the “very important” and “fairly important” responses with “important,” and the “not particularly important” and “not important at all” responses with “not important.” When ranking expectations as important, “the wish to have access to staff on the maternity ward” received the highest percentage (99.3%). Other expectations graded as important were “to stay as long as I want to” (94.9 %), to have a post-delivery talk (95%), to have support during breastfeeding (90.6%), to have the family staying on the maternity ward (86.3%), to have a room for oneself (84.9%), and to have information about breastfeeding (85.4.8%), infant behaviour (82%) and childcare (82.7%). The opportunity to have an “early discharge” was considered important by 61.2 % of the women; to have a “TV in the room” during their stay on the maternity ward was considered important by only 28.3% (Table II).

There was a statistically significant difference where primiparae graded the expectations on care more important than multiparae in the variables “having information about breastfeeding” ($p=0.001$), “having information about physiological change” ($p=0.000$), “having information about psychological change” ($p=0.000$), “having information

about childcare” ($p=0.014$), having information about infant behaviour” ($p=0.002$), “having the family staying on the maternity ward” ($p=0.006$), “having a midwife coming for a home visit” ($p=0.000$), “having a nurse from the child healthcare clinic coming for a home visit” ($p=0.005$), “having telephone support from a midwife at the maternity ward” ($p=0.001$) and “having telephone support from the child healthcare nurse” ($p=0.036$) (Table II). In the variable “having the possibility of an early discharge,” multiparae graded the importance higher than primiparae. However, both primiparae and multiparae graded “to have the opportunity to stay on the maternity ward as long as you want” equally important at 96.3% and 94% ($p=0.557$), respectively.

Expectations of care after discharge from the maternity ward

The expectation of “continued contact with the maternity ward staff,” (“having home visits” and “telephone support”), as well as support from the child health care clinic also generated higher statistical significance among primiparae (Table II).

Expectations of home visits and telephone support from child health care staff during the post-partum period was graded by all women as more important than continued contact with maternity ward staff. Visiting the child health care centre was rated highly, with 100% of primiparae and 97.6% of multiparae considering such a visit important. The majority of women valued 24-hour telephone support as important (72.5%) (Table II). A small proportion (15.1%) believed that “using picture and sound in contact with the midwife on the maternity ward” (known

as telemedicine) was expected to influence their choice of when to be discharged from the maternity ward, but only 25.9% showed interest in such a technology.

People who are expected to be important during the post-partum period

The results of items 22–26 show that the infant's father was expected to be the most important person for maintaining social contacts (98.6%), caring for the baby (98%), supporting

the mother's psychological adjustment (95.7%), supporting the mother's physical adjustment (92%) and supporting breastfeeding (87.9%). The health care staff was expected to be important for supporting breastfeeding (77.9%), supporting parents caring for their baby (64.3%) and supporting the mothers' physical adjustment (53.6%). Relatives were expected to be important for maintaining social contact (96.4%) and for supporting mothers' psychological adjustment (65.0%).

Table II. Comparisons between the expectations of primiparae and multiparae regarding care in the post-partum period, graded as important while being cared for on the maternity ward (item 5–16 and 22–33).

Items graded as important	Primiparae, n=54 n (%)	Multiparae, n=85 n (%)	Total n=139 n (%)	p value*
Having support when breastfeeding	51 (94.4)	75 (88.2)	126 (90.6)	0.220
To be able to sleep at nights (n=138)	32 (59.3)	52 (51.1)	84 (60.9)	0.756
Having access to health care staff	54 (100)	84 (98.8)	138 (99.3)	0.424
Having a single room	49 (90.7)	69 (81.2)	118 (84.9)	0.125
Having a TV in the room (n=138)	15 (27.8)	24 (28.6)	39 (28.3)	0.920
Having a telephone in the room	35 (64.8)	65 (76.5)	100 (71.9)	0.136
Staying at the maternity ward				
“as long as I want to” (n=138)	52 (96.3)	79 (94.0)	131 (94.9)	0.557
Having the possibility of an “early discharge”	26 (48.1)	59 (69.5)	85 (61.2)	0.012
Having information about breastfeeding (n=137)	52 (98.1)	65 (77.4)	117 (85.4)	0.001
Having information about physiological change	50 (92.6)	57 (67.1)	107 (77.0)	0.000
Having information about psychological change	49 (90.7)	52 (61.2)	101 (72.7)	0.000
Having information about childcare	50 (92.6)	65 (76.5)	115 (82.7)	0.014
Having information about infant behaviour	51 (94.4)	63 (74.1)	114 (82.0)	0.002
Having a post delivery talk	50 (92.6)	82 (96.5)	132 (95.0)	0.308
Having the family staying on the maternity ward	52 (96.3)	68 (80.0)	120 (86.3)	0.006
Having visits from relatives and friends	41 (75.9)	64 (75.3)	105 (75.5)	0.933
Having a midwife coming for a home visit	39 (72.2)	34 (40.0)	73 (52.5)	0.000
Having a nurse from the child health care clinic coming for a home visit (n=138)	45 (83.3)	51 (60.7)	96 (69.6)	0.005
Having telephone support from a midwife at the maternity ward	47 (87.0)	51 (59.9)	98 (70.5)	0.001
Having telephone support from the child health care nurse (n=138)	51 (94.4)	69 (82.1)	120 (87.0)	0.036
Visiting the child health care clinic (n=138)	53 (100)	83 (97.6)	136 (98.6)	0.261
24-h telephone support (n=138)	44 (54.0)	56 (66.7)	100 (72.5)	0.057

* p values from Pearson chi-square when appropriate.

DISCUSSION

The main findings in this study are that 61.3% of the women wanted to be discharged 72 hours after childbirth, regardless of the distance between the hospital and home. To have access to maternity ward staff and the ability to decide when to be discharged were expected to be the most important issues in maternity ward care. The infant's father was expected to be the most important person in the post-partum period.

The overall finding in this study has to be considered partly in light of the fact that the area investigated, the northernmost county in Sweden, faced a reduction in the number of maternity clinics from 5 to 2 just prior to the start of our study, and partly in light of the ensuing media debate on the topic. One can speculate on the consequences the negative media dispute had on the expectations of the women in our study, with special regard to post-partum care and any increased distance to a maternity clinic, but also on some of those women who lived closest to the clinics that were closed. It may also be that evaluating post-partum care as a part of childbirth does not depend on the distance expecting parents must travel to reach the maternity unit. The distance between the home and clinic might only be considered important regarding the actual labour and delivery. Despite the rather small sample, a high proportion of women responded relative to the total number of available pregnancies, and our sample population covered the entire county, including both densely and sparsely populated areas.

Our findings, that a large proportion (61.3%) of the women did not want to be

discharged any earlier than 72 hours after childbirth, differ from the findings in a recent study of women in a large city in Sweden (30), in which 72% of the women wanted to be discharged by the 72 hours or sooner. Although early discharge in Sweden is well known and well established within the health care system (1), women in this specific geographic area are not prepared to be discharged within the limit of 72 hours set for early discharge. One explanation could be a general unwillingness of the parents to return to the hospital after discharge for the phenylketonuria (PKU) test and a second paediatric examination. Within this specific county, it is still routine for infants to undergo a second examination by a paediatrician, usually performed at the same hospital where the child was born (Norrbottens county council, 2006, personal communication). A change in practice designed to provide the PKU test and second paediatrician exam in a community setting would perhaps encourage families to take an early discharge.

To have access to caring staff as well as to have information and support were ranked as important. Several studies of women's experiences in post-natal care point out the strong need for emotional, physical and practical support (11,31,32), especially in conjunction with short hospital stays. Another important, highly ranked issue was the desire women had to decide for themselves when they should be discharged. This could be seen as a strategy for maintaining control over different options within post-partum care. In a study measuring the outcome of early discharge versus hospital post-partum care, Waldenström (4) and Fredriksson et

al. (12) found that in order to have a positive outcome, parents had to be offered a choice of care alternatives.

Variables concerning information, breastfeeding and infant support were also highly valued and in agreement with the findings of Smith (9), Proctor (13) and Emmanuel et al. (33), whose studies found that support and practical assistance related to care of the infant and breastfeeding were the most frequently identified concerns. Likewise, our results do not support those posted by Ruchala (34), who found that during the first 5 days after childbirth, mothers wanted to learn more about caring for their own needs rather than learning to care for the infant.

As in previous studies (35–37), we found that the infant's father was rated as the most important person in the post-partum period after leaving the maternity ward. This finding is supported by Barclay and Lupton (38) who state that men in Western society are expected to fill the gap between close relatives and the new mother and have to take on the role as provider, guide, household helper and nurturer. Even among people who are important for support in breastfeeding, the infant's father was more highly ranked (87.9%) than health care professionals (77.9%). These findings can partly be explained by the findings of Humphreys et al. (39) and Ingram et al. (36) who reported that the attitude of health professionals to women's decisions about the care for herself and the baby was less influential than the attitudes and beliefs of members of the women's social network. One explanation may be that within this specific geographic area with its long distances to the maternity department, the presence of the infant's father is expected to be even more important than

receiving support from health care professionals.

In our study, the partners of the participants were not asked for their opinion, which is, of course, a limitation and might have provided alternative points of view that would have enriched the study. The social debate concerning the importance of the father's presence for the growing child/family has led to fathers now making their own demands on post-partum care (40,41). Since the result of the SSP indicates no differences between our sample and the population in general, the difference between our result and those found in other studies probably does not reflect personalities, but rather life as it is lived in this particular geographical part of the country.

Few women indicated that the expectation of having access to technical solutions in order to complement the early-discharge system would affect their attitude towards time of discharge. This answer most likely reflects their lack of present knowledge concerning telemedicine as a complement within the health care system.

Conclusions

In this study, distance was not found to be a determining factor in estimating either the length of the hospital stay or the post-partum care expected. It seems that it was more important for new mothers to have the opportunity to decide for themselves when to be discharged from the maternity ward, which can be interpreted as a strong signal that women want to be in control of the care they receive. Implications for midwives include focusing more on the woman and her family's individual needs when developing midwifery care in the maternity ward.

In the results, the father/partner was expected to be the most important person in the post-partum period. This indicates the need to acknowledge and recognize his presence in the maternity ward and in the post-partum period. Midwives have to include fathers as individuals with resources and with their own needs for support. Further research is needed to determine the role of fathers in the post-partum period.

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