COMPANIONSHIP IN LABOUR: DO THE PERSONALITY CHARACTERISTICS OF LABOUR SUPPORTERS INFLUENCE THEIR EFFECTIVENESS

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ABSTRACT

Recent research has revealed beneficial post-partum, psycho-social effects on the mother following labour which was accompanied by supportive companions. Whether these effects are obtained as a result of having companionship during labour or because of specific personality characteristics of the companions provided is important and is explored in this paper.

Although findings revealed few differences in adjustment between women who were supported by different companions, some variability in the postpartum state anxiety and depression scores were noted which suggest that selection of an appropriate supporter is an important aspect of such programmes.

INTRODUCTION

Of all the different types of labour support that have been studied, the most impressive, consistent and methodologically sound results have been obtained for support given by lay female supporters. The studies of Sosa et al. (1980) and Klauss et al. (1986) pioneered this research in Guatemala. They reported impressive benefits particularly with regard to progress of labour and method of delivery. Other studies have indicated significant obstetric benefits at the time of labour (Hemminki et al 1990) as well as post-partum perception of labour, adjustment to parenthood and to the infant, and breastfeeding success (Hofmeyr et al 1991).

Studies of labour support by untrained lay women are open to question regarding the exact form of support given. It could be argued that beneficial effects are due to the particular personal qualities of the companion and might not be generalizable to other support persons. It is, therefore, important to establish whether a particular personality, or the provision of continuous companionship during labour and delivery per se, is responsible for the beneficial effects observed.

We have attempted to analyze the characteristics of the labour support provided in the Coronation Hospital study (Hofmeyr et al 1991). In general, the support was not informative except to the extent of simple advice derived from personal experience, as the companions had neither medical, nursing nor traditional midwifery experience, but all had children of their own. The companions repeatedly were reminded to concentrate on providing emotional support through comfort, reassurance and praise.

The last was emphasized because of our hypothesis that an important way in which the clinical environment might impair the process of birth and adaptation to parenthood might be by undermining women's sense of achievement and development of confidence as mothers.

An illustration of the extent to which the support and praise given was genuine is provided by the response of one of the supporters to the one occasion on which a participant visited her at home and brought her a gift. She said that she felt guilty as she had really done nothing, it was the mother and the nursing staff who had done everything.

The other factors which we consider of importance with regard to the support provided were as follows. Firstly, the companions were not part of the hospital medical or nursing hierarchy, and therefore may have been seen as allies without a vested interest in the hospital establishment.

Secondly, they were drawn from the same community and were able to communicate easily with and share common values with the participants.

Thirdly, they were not known personally to the participants and this might have avoided feelings of having to live up to expectations or keep up appearances which may occur when women are accompanied during labour by a friend, family member or known midwife or antenatal educator. Finally, quite apart from anything the companion said or did, the fact that someone with no other function whatsoever was allocated on a full-time basis to be with the women in labour may have conveyed a message of concern for and value of them as individuals.

The above description, while explanatory of the nature of the support provided for women, does not contribute to an understanding of whether the specific personalities of the women contributed to the beneficial results observed following their presence during birthing or whether companionship itself is what is important. While the results of other studies examining various forms of lay companions are needed to fully explore this issue, some light can be shed on the subject by an analysis of inter-supporter differences in the Coronation Hospital study (Hofmeyr et al 1991).

SUBJECTS AND METHODS

The study was conducted at Coronation Hospital, a community hospital serving a low income population. The initial objective of the 1991 study was to measure the effects of supportive companionship on clinical outcome of labour, duration of breastfeeding and various aspects of adaptation to parenthood. Selection criteria for supportive companions included that the supporters should be lay women with no nursing or medical training, have experienced childbirth themselves, be of a disposition which was warm, empathic and compassionate, have personal integrity and maturity, be of a stable personality and able to make the time and emotional commitment required for the study.

Advertisements were placed in the hospital, in local churches and in community centres. Twenty women applied and were interviewed (W-LW, GJH). The selection interview consisted of an address to the group regarding the job description, individual interviews and role plays depicting a labour scenario.

The supporting job was advertised as voluntary, but offering what was considered a small monthly financial token along with daily meals. It became evident that the token amount was regarded as a salary by some of the women. It was therefore important to

TABLE 1: Baseline information expressed as MEAN values (range) or proportions (percent)

PERIOD A	n	Supporter 1		n	Supporter 2		p
Age (years)	17	22	17-31	23	29	16-24	0.26
Gestation (weeks)	17	39	36-41	23	38	36-41	0.65
Labour induced	17	1	5.9%	23	2	8.7%	1.00
Blood pressure (mmHg)							
Systolic	17	131	111-151	23	125	97-153	0.18
Diastolic	17	79	64-97	23	70	47-90	0.01
Previous analgesia	17	8	47%	23	10	43.5%	0.92
Augmentation before (R)	17	0	0%	23	0	0%	
PERIOD B	**n**	**Supporter 2**		**n**	**Supporter 3**		**p**
Age (years)	26	21	16-36	24	20	16-26	0.58
Gestation (weeks)	27	40	36-42	24	40	37-42	0.65
Labour induced	27	2	7.4%	24	0	0%	0.50
Blood pressure (mmHg)							
Systolic	27	139	100-164	24	127	92-154	0.02
Diastolic	27	79	54-113	24	75	41-95	0.34
Previous analgesia	27	12	44-4%	23	10	47.8%	0.82

TABLE 2 Details of labour outcome expressed as MEAN values (range) or proportions (percent)

PERIOD A	n	Supporter 1		n	Supporter 2		p
Change in BP 1 hour after enrolment							
systolic (mmHg)	17	2.59	(-21)-21	22	-2.59	(-33)-18	0.29
diastolic (mmHg)	17	-2.06	(-14)-13	22	-0.14	(-20)-19	0.35
Analgesia after randomization	17	9	52.9%	23	15	65%	0.65
Analgesia > once	9	1	11.1%	15	1	6.7%	1.00
Augmentation of labour	17	3	17.6%	23	3	13%	1.00
Entry - delivery (hours)	17	6	1.8-11.9	23	5	0.4-9.4	0.40
Assisted delivery	17	1	5.9%	23	4	17.3%	0.37
Caesarean section	17	2	11.8%	23	1	4.3%	0.56
PERIOD B	**n**	**Supporter 2**		**n**	**Supporter 3**		**P**
Change in BP 1 hour after enrolment							
systolic (mmHg)	24	-2.87	(-40)-28	23	-1.43	(-35)-32	0.94
diastolic (mmHg)	24	-2.54	(-27)-14	23	-3.56	(-28)-22	0.64
Analgesia after randomization	27	14	51.9%	24	13	54.2%	0.90
Analgesia > once	14	3	21.4%	13	1	7.79%	0.59
Augmentation	27	4	14.8%	24	6	25%	0.48
Entry - delivery (hours)	27	5	0.4-17.1	24	5	1-11.4	0.67
Assisted delivery	27	1	3.7%	24	1	4.2%	1.00
Caesarean section	27	4	14.8%	24	4	16.7%	1.00

distinguish between those applicants who were applying on the basis of a prospective salary only, and those who were interested in the actual nature of the work.

Some of the applicants adhered to strong Christian charismatic religious doctrines and viewed the supporter role as a potentially evangelical one. This was a point of concern since the hospital serves patients from various religious backgrounds and the imposition of Christian evangelism during labour was considered inappropriate and potentially alienating.

Two primary supporters and two back-up supporters were selected. Some weeks after the study began, a premature and ill grandchild was born to one of the supporters. The child's condition resulted in distress and distraction for the supporter and her ability to support effectively was diminished. It was considered eventually to be in the best interests of all for her to stop acting as a supporter. One of the back-up supporters was introduced as a replacement.

During the first period (A), supporter 1 assisted 17 women in labour while supporter 2 assisted 23. During the second period (B), supporter 2 assisted 27 and supporter 3 assisted 24.

The supporters were given brief training on the provision of positive emotional support and encouragement to women in labour. Supporters were not given instruction in the medical technicalities of labour, since they were not required to provide medical advice.

Details of the research design have been reported elsewhere (Hofmeyr et al 1991). Essential elements of the study are, however, repeated here. Nulliparous women in established labour without significant obstetric complications whose cervices were less than 6 cm dilated and who had no supportive companion with them (as was common in this hospital) were asked to participate in the study. The details of the study were explained, in particular that participants would have only a one in two chance of being accompanied during the rest of their labour by a companion. Baseline clinical details of the woman were recorded and a brief questionnaire completed before random allocation to support and control groups by means of cards in sealed opaque envelopes. Those in the support group were accompanied for the rest of the labour by one of the companions.

The women were interviewed an a number of psychological tests administered on their first post-partum day. These included measures of state and trait anxiety using Spielberger's (1983) State-Trait Anxiety Inventory, self-esteem using the Coopersmith (1967) Self-esteem Inventory, and perceptions of pain using the McGill Pain Questionnaire (Melzack 1975) and a visual analogue scale (Scott & Huskisson 1976). Maternal perceptions of labour were measured by closed ended questions such as their perceptions of the ease or difficulty of their labour and how they felt they had coped during labour. Rapheal-Leff's (1985) parenting style questionnaire was used to examine behavioral interactions with the baby. At six weeks post-partum, post-partum depression using Pitt's (1968) Depression questionnaire, anxiety, self-esteem, attitudes and behaviours regarding motherhood, mother-infant interactions and marital relationships were evaluated again. While blinding of the interviewer could not always be achieved because responses of the participants occasionally indicated whether they had received the additional support, the identity of the supporters were not distinguished, nor had an inter-companion comparison been planned at the time of the interviews.

In all, 189 women were included in the study of whom 91 were accompanied by a labour companion. Only one woman declined to participate in the study.

Statistical comparisons of continuous data were by the Mann-Whitney U test. Proportions were compared by the Fisher exact and chi-square tests.

The protocol was approved by the committee for research on human subjects of the University of the Witwatersrand.

RESULTS

Findings reported elsewhere (Hofmeyr et al in 1991) include no major obstetrical, neonatal or biochemical differences between supported and control group mothers or their babies. In contrast, consistent and significant differences were obtained between supported and control group women with respect to perceptions of labour, state anxiety, post-partum adjustment to parenthood and breastfeeding success.

Whether these findings were dependent upon

TABLE 3 Questionnaire responses within 24 hours of birth expressed a MEAN (range) values or proportions (percent)

PERIOD A	n	Supporter 1		n	Supporter 2		p
Self-esteem score	17	57	12-80	22	71	52-100	0.02
State anxiety score	17	31	20-47	23	26	20-48	0.02
Labour pain severe	17	11	64-7%	23	9	39.1%	0.20
Mothers' perception of labour							
very difficult	17	8	47.1%	23	8	34.8%	0.64
felt cope well	17	8	47.1%	23	12	52.2%	1.00
felt very tense	17	9	52.9%	23	6	26.1%	0.16
much worse than imagined	17	9	52.9%	23	9	39.1%	0.58
Perception of supporter							
happy with	16	15	93.7%	23	23	100%	0.41
very helpful	17	13	76.5%	23	21	91%	0.37
Supporter was present during							
labour only	17	9	52.94	23	4	17.4%	0.04
labour & delivery	17	7	41.1%	23	19	82.6%	0.02
PERIOD B	**n**	**Supporter 2**		**n**	**Supporter 3**		**p**
Self-esteem score	27	68	28-96	24	63	32-96	0.33
State anxiety score	27	30	20-51	24	27	20-48	0.19
Labour pain severe	27	20	74.1%	24	12	50.0%	0.14
Mothers' perceptions of labour							
very difficult	27	10	37.0%	24	5	20.8%	0.33
Felt cope well	27	14	51.9%	24	20	83.3%	0.04
felt very tense	27	7	25.9%	24	5	20.8%	0.92
very much worse than imagined	27	11	40.7%	24	4	16.7%	0.11
Perception of supporter							
happy with	27	27	100%	24	24	100%	
very helpful	27	27	100%	24	24	100%	
Supporter was present during							
labour only	27	6	22.2%	24	7	29.2%	0.80
labour & delivery	27	21	77.8%	24	17	70.8%	0.80

the personality of the companion, is examined here.

Biographical profiles of each support companion were obtained by means of an in-depth interview following a standardized format and observation of their demeanour and functioning by the research team.

1. The first companion was a 53 year old, married woman with six children of her own. She had had 9 years of schooling and had been married for 24. Her husband was employed in a factory. She regarded her role as a supporter to be enjoyable and believed it to be a wonderful idea, different from her own experience of birth. She considered the qualities of patience and tolerance to be important in order for a supporter to give women confidence during labour. She believed she was required to speak to women in labour, rub their backs when needed and to help them to think about something else when they were in pain. She reported feeling something akin to "burn-out" once or twice, but expressed a desire to work as a support companion on a permanent basis if given an opportunity to do so. Despite her positive verbal statements regarding her work, she was judged as somewhat "pathetic" in her demeanour. She was not neat in appearance and was judged to be lacking in interpersonal skills and in the ability to make emotional contact with patients. Due to her personal situation as well as her evident unsuitability as a supporter her employment in this role was discontinued.

2. The second supporter was a 52 year old woman, married for 29 years with four children. She had completed 8 years of schooling and her husband was in factory employment. She expressed a liking for a helping occupation and believed women in labour should not be alone. She saw the supportive companionship as a motherly role and considered it her job to speak to labouring women all the time, to hold their hands, to rub them if needed, to give water if requested and to answer their questions with reassurance. She believed patience, kindness, helpfulness and love were important qualities of a supportive companion. She never reported feelings of burn-out and looked forward to her work, wanting the position to be a permanent one. The observations of the research team were that she was neat in appearance, having a warm personality and good interpersonal skills.

3. The final companion, employed to replace the first mid-way through the study, was a 62 year old woman, widowed after 33 years of marriage, with one child. She had completed nine years of schooling. She had been employed in clerical positions, and her husband had been in food preparation. She thought that as a labour supporter she could reach out to young people and help, encourage and comfort them. She too regarded the supportive companionship as a motherly role and believed her presence would enable labour to proceed smoothly. She considered it her duty to comfort women in labour both emotionally and physically and regarded patience, kindness, attention, love and effort as qualities of importance for companions. She enjoyed being a supporter and would have liked the job on a permanent basis. She was judged by the research team to be in appearance, having a warm personality, with good interpersonal skills and always willing to help.

As mentioned above, supporters 1 and 2 worked during the first period (A), and 2 and 3 during the second (B). Comparisons were therefore made between the supporters working during the same periods. The supporters were "on call" on alternate days and were called to the hospital in the event of a subject being enrolled and randomly allocated to the "support" group.

In Table 1, baseline information obtained from the subjects prior to randomization is listed.

TABLE 4. Questionnaire responses six weeks after birth

PERIOD A	n	Supporter 1		n	Supporter 2		p
Self-esteem score	15	65	12-88	19	72	52-100	0.57
State anxiety score	15	29	21-47	19	26	20-49	0.10
Depression score	15	13	4-22	19	8	0-20	0.04
Feelings towards baby							
managing well	15	13	86.7%	19	17	89.5%	1.00
Becoming mother easy	15	4	26.7%	19	9	47.4%	0.38
Breastfed only	15	8	53.4%	19	12	63.2%	0.82
Bottly only	15	2	13.3%	19	1	5.3%	0.57
PERIOD B	**n**	**Supporter 2**		**n**	**Supporter 3**		**p**
Self-esteem score	19	80	48-100	20	79	36-100	0.73
State anxiety score	19	28	20-44	20	30	20-48	0.54
Depression score	19	11	0.33	20	9.4	0-22	0.62
Feelings towards baby							
managing well	19	16	84.2%	20	20	100%	0.11
Becoming mother easy	19	8	42.1%	20	12	60%	0.42
Breastfed only	19	8	42.1%	20	9	45%	0.88
Bottle only	19	6	31.6%	20	7	35%	0.90

The groups were well-matched for obstetric variables, though unexpected discrepancies in blood pressure were found. These differences were again observed one hour after randomization (Table 2).

It seems likely that personality characteristics and/or the approach of the supporter may affect the success of such a programme. It thus would be unwise to generalize the findings of specific studies of labour companionship to support provided by other categories of companion, particularly if differing from those in the current study by being professionally qualified, part of the hospital hierarchy or an associate of the women in labour. Support from the male partner in particular involves complex and variable relationship factors that are difficult to assess. Further research is also needed to evaluate the effectiveness of labour companionship for women from various socio-economic and cultural backgrounds.

In conclusion, although women who were attended by any of the labour companions had more favourable outcomes with regard to psycho-social variables when compared to the control group, careful selection of the supporters is considered of importance in the planing of a labour support programme.

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In Table 4, the questionnaire responses 6 weeks after delivery are compared. The trend towards more favourable outcomes for women assisted by supporter 2 in period A and supporter 3 in period B persisted but only in respect to the depression score for period A was the difference statistically significant.

REFERENCES

Coopersmith, S. (1967). The antecedents of self-essteem. San Francisco: Freeman

Hemminki, E., Virta, A-L., Koponen, P., Malin, M., Kojo-Austin, H. and Tuimala, R. (1990) A trial on continuous labour support during labour, feasibility, interventions and mothers' satisfaction. J. Psychosom. Obstet. Gynaecol., 11,:239-250.

Hofmeyr, G.J., Nikodem, V.C., Wolman, W-L., Chalmers, B. and Kramer, T. (1991). Companionship to modify the clinical birth environment: progress and perceptions of labour and breastfeeding. Br. J. Obstet. Gynaecol., 98,:756-764.

Klauss, M., Kennell, J., Robertson, S. and Sosa, R. (1986) Effects of social support during parturition on maternal and infant morbidity. Br. Med. J., 293,:583-587.

Melzack, R. (1975). The McGill pain questionnaire: Major properties and scoring methods. Pain, 1: 277-299

Pitt, B. (1968). 'Atypical' depression during childbirth. Br. J. Psychiatry 114: 1325-1335.

Raphael-Leff, J. (1985). Facilitators and regulators; participators and renouncers: mothers' and fathers' orientations towards pregnancy and parenthood. J. Psychosom. Obstet. Gynaecol. 4: 169-184.

Scott, J. and Huskisson, E.C. (1976). Graphic representation of pain. Pain, 2: 175-184.

Sosa, R., Kennell, J., Klauss, M. Robertson, S. and Urrutia, J. (1980) The effect of a supportive companion on perinatal problems, length of labour, and mother-infant interaction. N. Eng. J. Med., 303,:597-600.

Spielberger, C.D. (1983). Manual for the state-trait anxiety inventory. Palo Alto: Consulting Psychologists Press.

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