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A randomised controlled trial of the effect of educational counselling on the management of women with suboptimal childbirth outcomes

Key Messages

Psychosocial counselling provided during routine clinical care is sufficient for optimising functioning and satisfaction in postpartum women.

Introduction

The birth of a normal, healthy baby is an expectation of most pregnant women and their families. Nevertheless, unexpected adverse outcomes do occur. Dissatisfaction with the care provided is not uncommon and both the women and their families may become distressed. Adverse events or suboptimal outcomes may result in additional morbidity or even mortality in the mother or baby. Any condition that leads to, or constitutes, a deviation from the normal vaginal delivery of a healthy infant at term can be considered a suboptimal outcome.

Several studies have demonstrated that suboptimal childbirth outcomes have detrimental effects on the mothers' psychological well-being and satisfaction with the medical care they have received. Recent studies have also shown that caesarean section, forceps delivery, vacuum extraction, dissatisfaction with antenatal care, a negative birth experience, early mother-child separation have all been associated with an increased risk of postpartum depression.¹⁻³ Until recently, little research attention has been focused on the psychological management of women encountering suboptimal outcomes during pregnancy.

Aims and objectives

This study set out to determine whether proactive, systematic, and interventionist educational counselling in addition to routine clinical care can effectively reduce psychological morbidity and improve the quality of life and satisfaction among parturients who suffer suboptimal childbirth outcomes.

Methods

Setting and subjects

This study was conducted from September 1998 to August 2000 at the obstetric unit of a university-affiliated general hospital. Women who had suboptimal perinatal outcomes were recruited from the postnatal ward within 48 hours of admission. Suboptimal outcomes were categorised into eight groups: (1) antenatal complications resulting in hospital admission, eg gestational diabetes mellitus, antepartum haemorrhage, or placenta praevia; (2) elective caesarean section; (3) emergency caesarean section; (4) instrumental vaginal delivery; (5) labour induction at term for maternal or foetal indications; (6) postnatal maternal complications, eg postpartum haemorrhage, manual removal of placenta or perineal tear; (7) admission to neonatal special care unit; and (8) pregnancy loss from second trimester abortion or intrauterine death. Participants who had more than one unexpected outcome were categorised according to the first outcome encountered.

To ensure that subjects could be contacted for up to 6 months after the delivery, women who were not permanent residents and those who would leave the territory within 6 months of delivery were not included in the study. Informed written consent was obtained from all participants.

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Interventions

Randomisation was conducted using a set of sealed, opaque, sequentially numbered envelopes, with participants stratified into the eight subgroups according to the above-mentioned suboptimal outcome categories. A total of 560 subjects were recruited (280 cases and 280 controls).

Participants randomised to the intervention group were interviewed and followed up by the same midwife counsellor for educational counselling. The medical and nursing staff in the postnatal ward provided psychological support and counselling to participants in both groups as required. Clinical staff attended the participants in the control group without any additional input from the nurse counsellor, except those who suffered perinatal foetal loss (group 8) who were cared for and counselled by a special team of midwives—the grief counselling team.

All participants were followed up at the postnatal clinic for 6 weeks. Although a blinded study was infeasible in this setting, the ward staff was primed at the beginning of the study to avoid being selective in the routine care given to women in either group.

Educational counselling

During counselling, the participants in the intervention group were encouraged to ask questions and discuss their feelings about the unexpected events occurring during the antenatal period, labour, and puerperium. The counselling strategy involved active listening, education, and clarification of the relevant obstetric management and postnatal events. The counsellor was instructed to focus on the care of adverse emotions associated with suboptimal pregnancy outcomes, to facilitate affect expression, and to encourage positive coping. The counsellor determined the period of time and number of counselling sessions, but no limit was imposed. To clarify any doubt about patient management, the counsellor discussed the obstetric management plan with the attending doctors. If necessary, an interview between the attending doctor and the participant was arranged, especially when the patient had expressed dissatisfaction with the obstetric or neonatal management. The total time of counselling delivered either in the specific interventionist format by the counselling nurse or in the course of normal routine care by ward staff was quantified.

Main outcome measures

Sociodemographic information, obstetric and psychiatric history were recorded. Pre-counselling psychological assessment using the Clinical Global Impressions (CGI), General Health Questionnaire (GHQ), and Hospital Anxiety and Depression Scale (HADS) were conducted. The CGI provides a global rating whereas the GHQ identifies probable psychiatric morbidity and the HADS measures the participants' level of depression and anxiety.

The psychological assessments were repeated prior to

discharge from the postnatal ward. Subjects were interviewed during their 6-week postnatal follow-up visit and again at 6 months after delivery. Client satisfaction was assessed at 6 weeks using the Client Satisfaction Questionnaire (CSQ). Quality of life was measured at both 6 weeks and 6 months using the Chinese version of the World Health Organization Quality of Life (WHOQOL) instrument. Formal complaints and litigation were documented. Participants with complicated grief or psychiatric morbidity were referred to the medical social worker, clinical psychologist, or psychiatry out-patient service as appropriate. All psychometric instruments were in Chinese and had been validated, showing good reliability and validity.

An intention-to-treat analysis was used. All randomised participants remained in their groups for the purpose of analysis regardless of the intervention they actually received.

Results

There was no significant difference in the psychological morbidity (mean GHQ score \pm SD: Intervention 1.67 \pm 2.37; Control 1.81 \pm 2.48), quality of life (overall WHOQOL score \pm SD: Intervention 6.74 \pm 0.64; Control 6.80 \pm 0.65) and client satisfaction (mean CSQ score \pm SD: Intervention 24.5 \pm 2.70; Control 24.3 \pm 2.98) between the counselling and control groups. Participants who underwent elective caesarean section and received educational counselling had significantly lower levels of depression (mean score \pm SD, 2.57 \pm 2.63) compared to those who received routine care (mean score \pm SD, 3.92 \pm 3.22). On the other hand, educational counselling may have had a deleterious effect on the quality of life of those who had an instrumental delivery, as the instrumental delivery counselling group had a lower score (68.2 \pm 13.09) in the physical domain of the WHOQOL than the intervention group (73.5 \pm 13.41).

Discussion

Our findings show that the psychological well-being, depression and anxiety symptomatology, quality of life, and client satisfaction of women who received educational counselling were not significantly different from those of the control group. Our data included a wide spectrum of psychosocial outcomes, measured with validated and widely used psychometric instruments. The sizeable study population and the low attrition rate also ensured reasonable statistical power for detecting differences. Our nurse counsellors were experienced with perinatal and reproductive mental health research, and were carefully trained and closely supervised when delivering the psychological intervention. Hence, educational counselling, given on top of routine clinical care, did not appear to offer additional benefits to women with suboptimal childbirth outcomes.

Several methodological issues have to be considered when evaluating the utility of educational counselling in this

context. Firstly, although a randomised control trial (RCT) is regarded as the best design to infer causal relationship, we found that a RCT on educational counselling of women with suboptimal childbirth outcomes was fraught with difficulties. There was insurmountable bias in the recruitment process as distressed women were less likely to agree to participate. It was extremely hard for them to agree to be tested during a time of difficulties and immense emotional distress. Up to 25% of the subjects refused to participate; thus it is likely that only the less emotionally disturbed women were recruited. This hypothesis is supported by the observation that the baseline GHQ mean scores were about 2, and the CGI mean scores were below 1, suggesting relatively good psychological functioning at recruitment. It was thus difficult to demonstrate the therapeutic effects of educational counselling in our study population.

Secondly, women with suboptimal outcomes may have already received adequate psychosocial care in the course of routine care. This study was conducted in a department committed to providing quality psychosocial care and research. The department provides universal postnatal depression screening, and most midwives are trained to provide counselling for emotionally disturbed mothers.⁴ It also has an enthusiastic grief counselling team, one of the first in the region.⁵ Hence, the level and quality of psychological care provided by the clinical staff may well have been very high. Compounded by the fact that suboptimal outcomes naturally attract more attention from clinical staff, the women in the control group may have received a great deal of attention. Therefore, the incremental effect of the experimental intervention may have been diminished.

Thirdly, given the nature of the experimental intervention, it was infeasible to blind the clinical and nursing staff to the experimental status of the subject. In addition, the attending staff members were aware that patients' psychological outcomes, including complaints and litigation, were monitored during the study period. This might have influenced the care given in an unconscious but positive manner, elevating the level of psychological care in the control group.

Finally, these negative findings may simply mean that educational counselling was not effective enough to counteract the adverse effects of unexpected suboptimal outcomes. Educational counselling provides immediate informational and emotional support after unexpected suboptimal outcomes. However, educational counselling during an in-patient stay may not be effective enough to address more complicated issues, such as entrenched marital conflicts, which may confound patients' responses to unexpected outcomes.

In our research proposal, we planned to include women who had experienced recent perinatal death. This is important for our understanding of unexpected perinatal

outcomes. However, the RCT design rendered recruitment of this group of women extremely difficult. As most women and their families were extremely distressed, if not traumatised following a perinatal death, it was extremely hard to find an appropriate moment to explain the nature and purpose of the study. Most women and their families were not interested in the prospect of trial participation. Hence, we had to drop this substratum of the sample in the end. While this reduced the generalisability of our findings, this experience is nonetheless an important piece of scientific data. With the current hype about evidence-based medicine, this setback in recruitment is a cogent reminder of the limitation of the RCT design.

Although we did not find an overall therapeutic effect of educational counselling delivered on top of routine care, there was a measurable effect in women who underwent elective caesarean section. This group may have been regarded as uncomplicated and consequently have been neglected in comparison to the attention that the others received. Educational counselling in this instance may have effectively improved communication between the women and clinical staff. Nonetheless, the group of women who had an instrumental delivery and were allocated to the counselling intervention were found to have a lower score in one out of the five domains in the quality-of-life assessment. It is well known that instrumental deliveries are associated with more physical morbidity than spontaneous vaginal deliveries.⁶ This result was similar to other studies concluding that debriefing may indeed have a detrimental effect on women's emotions after operative childbirth.⁷ They found that women allocated to debriefing had a significantly lower role functioning (emotional) subscore. Educational counselling may potentially reduce psychological morbidity. In addition, it may heighten the awareness of physical symptoms during the postpartum period. Nonetheless, this might have been a spurious finding as only two significant findings out of a number of non-significant findings were found.

One of the fundamental tenets of health care is communication with patients. It is assumed that communication automatically leads to better psychological outcomes. Yet, when we subjected this assumption to an experiment, it failed to show the effect expected. However, concluding that counselling is useless may be premature, as this runs counter to intuition and common clinical sense. The challenge is to explain why these negative results were obtained and to better understand the interaction between caregivers and parturients in the process. It is also important to re-examine the experience of other researchers.⁸ We wondered whether the experimental model was wrong, as it could not be blinded and the recruitment may have been biased because it required informed consent. The Hawthorne effect may well have been observed in this study. These issues need consideration when planning future research on the matter.

Implications

The provision of additional counselling by a designated nurse counsellor does not produce additional benefits in terms of well-being and satisfaction for women at low risk. Further research is needed to explore the effectiveness of educational counselling in high-risk women.

Conclusion

Educational counselling, given on top of routine clinical care, does not have additional beneficial effects on the psychological well-being, quality of life, and client satisfaction of women who had suboptimal childbirth outcomes.

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