Women's worry in the antenatal period

By Caroline Homer, Tanya Farrell, Gregory Davis and Mark Brown

ABSTRACT

Considerable attention is paid to the treatment and clinical outcomes of 'at-risk' pregnancies but the level of worry experienced by these women has not been addressed. A multidisciplinary team, known as the Risk Associated Pregnancy (RAP) team, cared for 159 women with risk-associated pregnancies. Their level of worry was compared with that of 699 women with normal pregnancies (NPs): 360 receiving continuity of midwifery care and 339 receiving standard care. Underlying level of anxiety was similar among groups. Women managed by the RAP team reported a lower level of worry than women in either of the NP groups.

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Worry has been defined as emotional or mental distress and is referred to as the cognitive aspect of anxiety (Morris et al, 1981; Salmon et al, 1988). Worry seems to be an effort towards problem-solving and is closely linked with fear of a negative outcome (Borkovec and Inz, 1990; Bruhn, 1990). Worry can be both functional and dysfunctional. Functional worry helps with a painful situation and is a necessary step in coping with threatening situations (Breznitz, 1971). Dysfunctional worry seems to be linked to feelings of helplessness and depression, including postnatal depression (Affonso et al, 1990; Bruhn, 1990). Many pregnant women seem to have difficulties in assessing assistance when their worries are functional, therefore, productive and contributing to problem solving, or dysfunctional, hence, interfering with daily living and decision making (Affonso et al, 1999).

Most women experience some level of worry during pregnancy. Normal worries include whether the baby is normal and healthy, how the pregnancy affects body image and relationship with her partner, whether to continue work during and after the pregnancy and uncertainties about finances and housing (Affonso, 1987; Fleming and Flett, 1988; Donaldson 1991).

While some worry is expected (and functional) during pregnancy, little is known about the different levels of worry in low-risk and high-risk pregnant women. It is often assumed that women with 'at-risk' pregnancies will be more worried about their pregnancy, baby and their general health. It is acknowledged that there are difficulties in the use of language to describe these groups of women, particularly the use of 'high-risk' and 'low-risk'. For the purposes of this paper, we refer to women with medical complications as having a 'risk-associated' pregnancy (RAP). Women without medical complications are referred to as having a 'normal' pregnancy.

The aim of this study was to determine whether women with RAPs, cared for by a Risk Associated Pregnancy team (the RAP team), had different levels of worry in the antenatal period compared with women with normal pregnancies (NPs). Women were not randomly allocated for organisational reasons. All women with RAPs were cared for by the RAP team. Therefore, in order to examine levels of worry the authors compared women who received care from the RAP team with women having NPs. Women with NPs were part of a separate randomised, controlled trial conducted in the unit during the same time period as the evaluation of the RAP team (Homer et al, 2000; Homer et al, 2001a; Homer et al, 2001b).

Models of care

RAP model

In 1997, the authors established a new model of care for women with RAPs, known as the RAP team. The RAP team is a collaborative, multidisciplinary group who cares for women with specific risks, particularly hypertension, and was made up of four midwives, an obstetrician and one physician. The main principle of the model was continuity of care; a consistent approach to care provided by a small team of caregivers.

Antenatal care was provided by the RAP team in three areas. The RAP antenatal clinic was conducted by a RAP midwife and obste-

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trician one afternoon a week. Women saw the midwife and doctor together or separately and the plan of care was discussed. The physician was available for consultation or to review women.

A day assessment unit (DAU) was also conducted by the RAP team and was designed for women needing intensive monitoring during the antenatal period to prevent their admission to hospital. The DAU was conducted 3 days a week or more often if required. A RAP midwife coordinated the care in the DAU and women were reviewed at the end of the morning jointly by an obstetrician, midwife and physician. The RAP midwives were rostered for 1 month at a time in the DAU to increase the level of continuity of carer.

The RAP midwives also worked the antenatal/postnatal ward morning and afternoon shifts, 7 days a week for women who required inpatient care. They primarily care for RAP women, but also for other women in the ward where necessary. The obstetrician and physician, in collaboration with the RAP midwife, reviewed each woman daily. The RAP midwife coordinated the care for women on the ward and provided ongoing support, education and advice to women and liaised directly with the obstetrician or physician.

RAP midwives were rostered 'on-call' for women during labour and birth. This service was available from Monday to Friday 8 am–8 pm. If a woman went into spontaneous labour, the RAP midwife from the antenatal/postnatal ward provided labour and birth care, while the manager cared for the women in the ward. Women who required induction or an elective caesarean were booked, where possible, on days when the DAU was closed and the DAU midwife was on call. This was a flexible system that required ongoing negotiation and adjustments by all team members to ensure that it was functional and responsive.

After the birth, women on the RAP team were transferred to the antenatal/postnatal ward and the RAP midwives coordinated their postnatal care. The RAP team reviewed the woman daily and discharge planning was made collaboratively with the women.

Continuity of care for women with NPs: The STOMP model

The St George Outreach Maternity Project (STOMP) was also established in 1997. STOMP care involved a team of six midwives who provided antenatal care from community-based settings in collaboration with an obstetrician. Women received care during labour, birth and the postnatal period by the same team of midwives. This model has been described in other publications (Homer et al, 2000; Homer et al, 2001a; Homer et al, 2001b).

Standard care for women with NPs

Standard care was characterised by a lack of continuity across the antenatal, intrapartum and postnatal periods as a large number of clinicians provided care. Standard care was provided in the hospital-based antenatal clinic, the delivery suite and postnatal ward. Midwives and doctors saw women in the antenatal clinic. Hospital-based antenatal care included visits to the women's GP. Midwives and doctors on duty provided labour and birth care in the delivery suite and postnatal care in the postnatal ward.

Methods

Sample

Between May 1997 and February 1999, 200 women were recruited to the RAP team. Most had a diagnosis of either gestational hypertension (n=48, 30.2%) or pre-eclampsia (n=71, 44.8%). Other diagnoses were diabetes, placenta previa, previous poor obstetric history, twins and HIV. One hundred and fifty-nine women (80%) completed a questionnaire before the birth of their baby at a mean of 33 weeks gestation. At 8 weeks postpartum, 97 (48%) women completed a self-administered postal questionnaire.

Between February 1997 and April 1999, 1089 women were recruited to a randomised, controlled trial of a new model of care; 550 women were allocated to the intervention group (STOMP care) and 539 were allocated to the control group (standard care). For the purposes of this analysis, women who had antenatal risk factors for an adverse pregnancy outcome were excluded from the sample (STOMP care n=79; standard care n=82). This left 928 women with a NP, of whom 699 (75%) completed an antenatal questionnaire at a mean of 36 weeks gestation and 561 (60%) completed a self-administered postal questionnaire at 8 weeks postpartum. A flow chart describing sample and data collection is displayed in *Figure 1*.

> ***After the birth, women on the RAP team were transferred to the antenatal/postnatal ward and the RAP midwives coordinated their postnatal care.***

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Figure 1. Flow chart describing population, sample and data collection

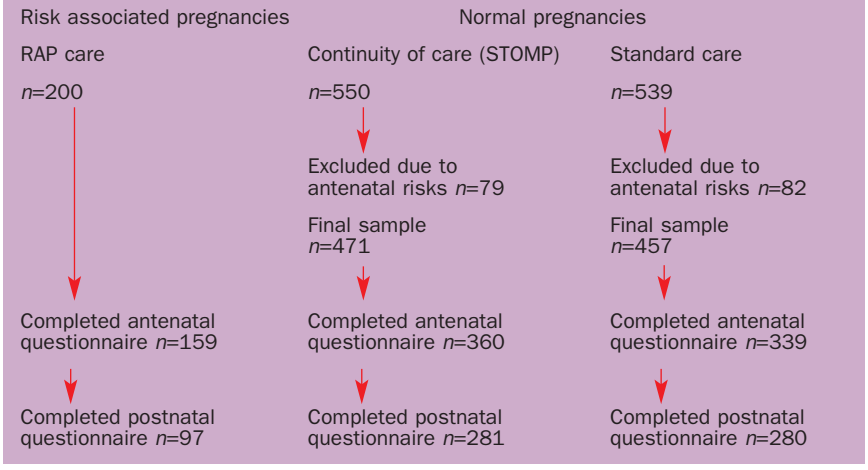


Table 1. Age and parity of women in the three groups

	Risk associated — RAP care	Normal — continuity of care	Normal — standard care
	n=159	*n*=376	*n*=362
Age (mean (SD))	30.8 (5.1)	28.2 (5.4)	27.9 (5.2)
Primiparous (n (%))	75 (47)	173 (46)	174 (48)

Instruments

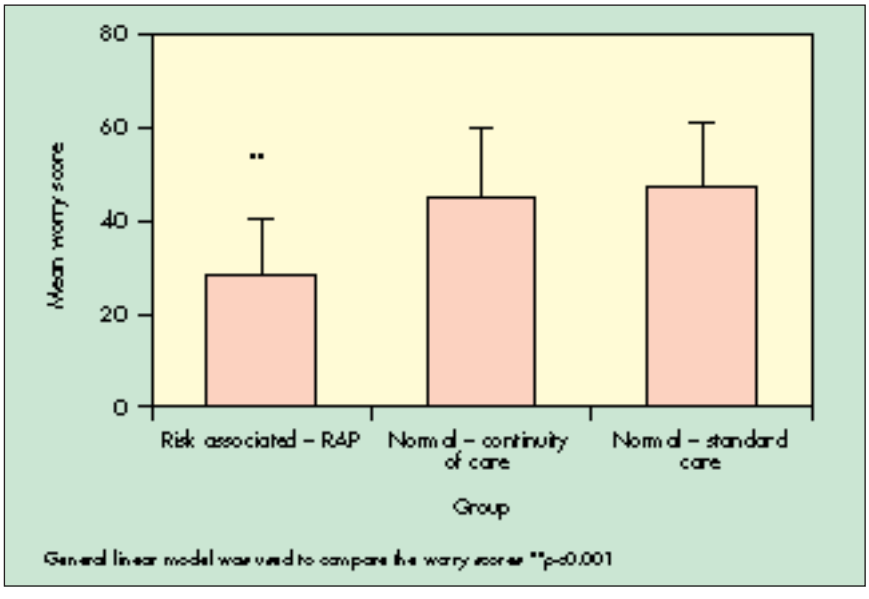
The antenatal questionnaire included the Cambridge Worry Scale (Stratham et al, 1997). This scale examined women's concerns and fears related to pregnancy, health, relationships and socioeconomic issues. Women were asked to score each item on a scale from 0 (not a worry) to 5 (extremely worried). Six statements related to the baby, seven items related to the pregnancy, labour and birth and three were about general social concerns (for example, housing and employment). The items on the scale were added to give a continuous variable.

The postnatal questionnaire included the State-Trait Anxiety Inventory (STAI) (Spielberger, 1983). The STAI consisted of two sets of 20 statements, each measuring a different dimension of anxiety. The first set of statements (A-State) elicited how the respondent felt at that moment, that is, their transitory state. The second set (A-Trait) elicited how the respondent felt in general. This second scale is considered to be relatively stable and is used to compare groups for their disposition to respond to psychological stress. The scale produces continuous data.

Analysis

A general linear model was used to compare the worry scores of women with RAPs with women with NPs after controlling for parity, gestation and age. An ANOVA was used to compare the A-Trait and A-State scores among the three groups.

Figure 2. Mean worry scores of the three groups



Results

Women managed by the RAP team were slightly older than women in the normal pregnancy groups. There were similar numbers of primiparous women in all three groups (*Table 1*). Women managed by the RAP team reported the lowest level of worry in the antenatal period compared with women with NPs in both the continuity of care and standard care groups (*Figure 2*). The difference between women with NPs and those with RAPs was significantly different even after controlling for age, gestation and parity ($P<0.0001$).

There were no significant differences among the three groups in levels of state ($P=0.6$) or trait ($P=0.3$) anxiety (*Figure 3*).

Discussion

These findings were derived from two studies that measured the experiences women had with maternity care at the study hospital over a similar time period. Worry and anxiety were not primary outcome measures for either of the cohorts, but they may be helpful in predicting a positive or negative experience for women. It was not feasible to randomly allocate women with RAPs to the RAP

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team or to standard care to determine whether this team approach specifically impacted on levels of worry or anxiety.

The comparison presented was seen as the only means to determine whether there were differences between the women with risks and those with NPs. The analysis was limited by the postnatal response rate, particularly in the women in the RAP group. Women who were more anxious may have failed to complete the questionnaire, thus biasing the results. The antenatal response rates were as good as reported in similar research in Australia (Laslett et al, 1997; Rowley et al, 1995). Despite the limitations, these results may help clinicians address issues of worry and anxiety in pregnant women.

There were no differences among the three groups in A-Trait anxiety suggesting that women in the RAP group did not have greater underlying levels of anxiety compared with the two groups of women with NPs. There have been concerns raised in the literature about the stability of the STAI A-Trait around the time of birth (Hundley et al, 1998). The STAI scale was therefore administered in the postnatal period to help increase the stability of the scale.

While there were no significant differences between the groups in A-Trait anxiety, women in the RAP group reported the lowest levels of anxiety in the antenatal period. The authors suggest that the RAP team model of care may have reduced the levels of antenatal worry in women with pregnancy-related risks. They hypothesise that women who received RAP care from their midwives and doctors felt that their worries were listened to and acknowledged. Worries verbalised by women in the RAP team were often discussed at length. It was also likely that women had more time with the RAP team to discuss fears about pregnancy, labour and birth.

Women attending the DAU, or who were admitted to the antenatal/postnatal ward, were able to access information and support from the midwives and doctors for a longer time period than women with NPs in a conventional antenatal clinic visit. It is hypothesised that the social support provided in a DAU or ward setting may have contributed to less worry and anxiety.

The high level of worry reported by both groups of women with NPs is a cause for some concern. The authors had hypothesised that women who were in the continuity of care model would report less worry, as they would be seeing the same group of midwives and doctors who would be responsive to their needs and concerns. It appeared that this was not the case and, therefore, warrants further investigation.

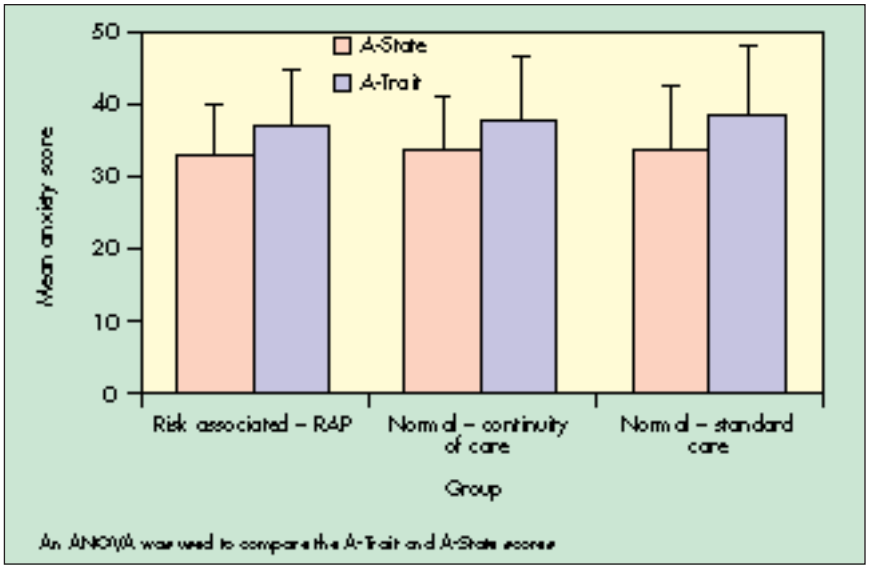

Figure 3. Mean state and trait anxiety scores across the three groups

The question of addressing anxieties and concerns versus worries needs more attention. When women are asked, 'what are your concerns?' responses will most likely be related to a need for information (Donaldson, 1991). Different responses may be elicited by asking women, 'what are you worried about?'. This does not negate the importance of information, but allows women to share worries that can cause distress and interfere with daily life (Affonso et al, 1999). Midwives often have limited time to spend with women during antenatal visits and it is important to use this opportunity to talk about worries and anxieties. This may be one strategy to help reduce vulnerability to depression and assist women in their adaptation to motherhood.

Conclusion

Women with NPs reported more worry in the antenatal period than women with RAPs, managed by the RAP team. This suggests that the RAP team approach reduced worry, or that women without risks need to have their level of worry more effectively considered and addressed. Clearly, further research needs to be conducted.

These findings have implications for midwives, obstetricians and GPs working with

KEY POINTS

- Women with normal pregnancies reported more worry than women with risk-associated pregnancies (RAP) who were managed by the RAP team.
- It is possible that acknowledging worries and listening to women are strategies that may contribute to lessening women's worry during pregnancy.
- More research needs to be conducted into the impact of worry on pregnancies.

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women. It is possible that acknowledging worries and listening to women is a simple strategy that may contribute to decreasing women's worry during pregnancy. BJM

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