Review of patient satisfaction with services provided by general practitioners in an antenatal shared care program

Catherine Lucas, Karen Charlton, Lucy Brown, Erin Brock, Leanne Cummins

Background
Antenatal shared care (ANSC) is a model of care in Australia whereby pregnant women are managed by their general practitioner (GP) and an obstetrician at a public antenatal clinic throughout the pregnancy. The aim of this study was to assess pregnant women’s satisfaction with the ANSC program and the adequacy of advice provided to pregnant women.

Methods
Women participating in ANSC in the Illawarra region of NSW were invited to complete a satisfaction survey, which included questions on relevant topics discussed with their GP.

Results
Most women reported being highly satisfied with the ANSC service. Over half of the women had not received any information about breastfeeding and nutritional supplementation of iodine.

There is a variety of antenatal care service models in Australia including:
- the traditional obstetrician-led clinic approach
- midwifery-led models including group practice and midwifery teams
- models centred on culturally appropriate care (eg models for Aboriginal and Torres Strait Islander women and culturally and linguistically diverse [CALD] women)
- group assessment and care models
- antenatal shared care (ANSC).

Antenatal shared care (ANSC) is described in Australia as a service delivery model whereby ‘several health professionals are involved in the care of a woman during her pregnancy, often in the context of a formal arrangement’. General practitioner (GP)-led ANSC aims to provide pregnant women with flexibility, choice and continuity of care, while enhancing the skills of GPs working with pregnant women and promoting better communication between GPs and the antenatal clinic. An additional benefit of any shared care model is the reduced workload for hospital antenatal clinics.

To date, there has been limited research regarding the effectiveness of ANSC and women’s satisfaction with this type of care. Available research suggests that the ANSC model may result in improved obstetric outcomes and be as acceptable to women as the traditional care alternative. However, inconsistency and sometimes lack of information provided to pregnant women have been identified as disadvantages.

The Australian Clinical Practice Guidelines for Antenatal Care outline the importance of continuity of care, and specify the provision of information about key pregnancy topics such as food safety, folic acid and iodine supplementation, physical activity and preparation for breastfeeding. There are no national defined pathways for ANSC, but different states and health districts have developed their own guidelines, which vary in terms of recommendations for what advice should be provided to women, at which time points and by whom. For example, the defined clinical pathway for ANSC in the Illawarra region, a GP-led model, suggests that breastfeeding advice should be provided by GPs in weeks 16–24, whereas advice on nutrition supplementation should be provided at the first ANSC visit, before 12 weeks gestation. Compliance with these guidelines, however, is yet to be investigated.
Although there is limited research related to the nutritional advice that pregnant women receive and how this advice is used,2 some studies have shown that pregnant women may be more likely to take pregnancy supplements if verbally recommended to do so by their healthcare provider, and if they have received ongoing counselling regarding supplement use.5 In adults with chronic lifestyle-related diseases, evidence suggests that advice from GPs is effective in improving nutrition-related behaviour.8

The aim of this study is to assess the satisfaction of pregnant women with the ANSC program and their perceived adequacy of the advice they received about nutrition-related issues and other important topics for pregnancy.

**Methods**

As part of a larger study that assessed the nutrition-related knowledge and practices, including supplement use, of pregnant women and healthcare providers who participate in the GP-led ANSC in the Illawarra region of NSW,9 enrolled women also completed questions related to their satisfaction of the service. The self-completed satisfaction survey comprised items related to relevant topics discussed with their GP, such as diet, physical activity, and breastfeeding;2 satisfaction with explanation of tests;3 and satisfaction with waiting times and the general service provided (Table 1).

Table 1. Satisfaction questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
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<tbody>
<tr>
<td>1. Have you previously participated in Shared Care during pregnancy?</td>
<td>(Closed question; Answers: Yes; No; Do not know)</td>
</tr>
<tr>
<td>2. Were you happy with the number of visits you had with your GP?</td>
<td>(Closed question; Answers: Yes; No – I would have preferred more visits; No – I would have preferred fewer visits)</td>
</tr>
<tr>
<td>3. (A) Were you satisfied with the amount of information you received regarding your pregnancy from the Antenatal Shared Care Program?</td>
<td>(Closed question; Answers: Yes; No)</td>
</tr>
<tr>
<td>(B) If no, please describe the further information you would have liked to receive (Open question)</td>
<td></td>
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<tr>
<td>4. Were you provided with enough time to discuss any topics you had regarding your pregnancy during visits with your GP?</td>
<td>(Closed question; Answers: Yes – on every visit; Yes – on most visits; Yes – on some visits; No)</td>
</tr>
<tr>
<td>5. Were the tests conducted during your pregnancy clearly explained to you by your GP?</td>
<td>(Closed question; Answers: Always; Sometimes; Rarely; Never)</td>
</tr>
<tr>
<td>6. Which of the following did you discuss at least one of your visits with your GP during pregnancy?</td>
<td>(Closed question; Topics: Diet; Exercise; Physical changes to you during pregnancy; Emotional changes to you during pregnancy; Infant feeding. Answers: Yes; No; Do not know)</td>
</tr>
<tr>
<td>7. When visiting the hospital clinics were you happy with the waiting time?</td>
<td>(Closed question; Answers: Always, Usually; Sometimes; Never)</td>
</tr>
<tr>
<td>8. (A) When visiting the hospital clinics were you happy with the service provided?</td>
<td>(Closed question; Answers: Always; Usually; Sometimes; Never)</td>
</tr>
<tr>
<td>(B) If you answered ‘Usually’, ‘Sometimes’ or ‘Never’, which aspects of the service were you unsatisfied with?</td>
<td>(Open question)</td>
</tr>
<tr>
<td>9. The following statements ask how you felt about various aspects of the Antenatal Shared Care Program.</td>
<td>(Closed question; Statements: ‘I felt confident in my Doctor’; ‘I felt anxious about participating in the Shared Care Program’; ‘I felt involved in my Antenatal Shared Care for this pregnancy’; ‘Talking to my doctor about problems was easy’; ‘I felt in control of my pregnancy’; ‘I understood what was happening in this pregnancy’; ‘When I asked my GP about specific information about my pregnancy it was always provided’; ‘I was always able to obtain the advice I needed from my GP’. Answers: Strongly agree; Agree; Disagree; Strongly Disagree; Don’t know)</td>
</tr>
<tr>
<td>10. Do you believe that you have received enough dietary information to make informed decisions concerning the following topics during this pregnancy?</td>
<td>(Closed question; Topics: Iron; Iodine; Calcium; Healthy eating; Folate; Listeria and/or food poisoning; Use of dietary supplements during pregnancy. Answers: Yes; No; Do not know)</td>
</tr>
<tr>
<td>11. How did you receive this information? (Closed question; Topics as above. Answers: Written information from health professionals; Verbal information from health professionals; Newspaper; Magazine; Television; Radio; Internet; Did not receive any information; Do not know)</td>
<td></td>
</tr>
<tr>
<td>12. Do you have any other comments related to your experience with the Antenatal Shared Care program?</td>
<td>(Open question)</td>
</tr>
</tbody>
</table>
permission was obtained from NSW Health (HREC11/254).

**Results**

A total of 142 women consented to participate; however, two women were excluded from analyses secondary to incomplete surveys. Demographics of participants are presented in Table 2.

**Satisfaction with ANSC services**

Overall, women expressed a high satisfaction with the antenatal services provided by their GP. The majority (93%) of women were happy with the number of visits they had had with their GP. Most women ‘strongly agreed’ or ‘agreed’ when asked how they felt about positive statements on ANSC services on a 5-item Likert scale (Table 3).

When asked about their experiences at visits to the public hospital antenatal clinic, over half (59%) of the participants reported being ‘sometimes’ or ‘never’ satisfied with the waiting time; however, most (80%) were ‘always’ or ‘usually’ happy with the services provided. The most commonly reported reasons for dissatisfaction (open-ended question) were:

- long waiting times (n = 20)
- unfriendly and rushed staff (n = 16)
- staff not answering questions or providing explanations (n = 8)
- inconsistent information and lack of continuity of care (n = 6).

One woman commented, ‘I found that there was little continuity of care, and differing opinions and advice every time I came. There was no liaising with my GP’.

**Satisfaction with amount of information received**

Most women (84%) were satisfied with the amount of information they had received from the ANSC program regarding their pregnancy. Women reported wanting more information about a variety of topics, including the process of ANSC, ‘More information about dealing with the antenatal clinic, and expectations regarding appointments with antenatal clinic staff’.

Most women (96%) reported that they had enough time to discuss questions with their GP on all or most visits, and 81% reported that tests were always explained by their GP. Women were asked whether their GP had discussed specific pregnancy-related topics (Table 4). Women were also asked whether they received enough dietary information to make informed decisions about key nutrient topics in pregnancy (Figure 1). Most women reported receiving either written or verbal advice from a healthcare professional about iron (79%), calcium (66%), healthy eating (81%), folate (74%), Listeria infection and/or food poisoning (80%) and use of dietary supplements (71%). Less than half (46%) reported receiving information about iodine.

**Discussion**

Overall, the women seemed to be highly satisfied with ANSC, with the exception of long waiting periods experienced when

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**Table 2. Socio-demographic characteristics of women including gestational age and intention to breastfeed**

<table>
<thead>
<tr>
<th>Age</th>
<th>29 ± 5.1</th>
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</thead>
<tbody>
<tr>
<td>Range (years)</td>
<td>18–46</td>
</tr>
<tr>
<td>Education</td>
<td>n (%)</td>
</tr>
<tr>
<td>Completed post-school education</td>
<td>87 (62%)</td>
</tr>
<tr>
<td>Trimester</td>
<td></td>
</tr>
<tr>
<td>1 (0–12 weeks)</td>
<td>17 (12%)</td>
</tr>
<tr>
<td>2 (13–24 weeks)</td>
<td>20 (14%)</td>
</tr>
<tr>
<td>3 (&gt;25 weeks)</td>
<td>103 (74%)</td>
</tr>
<tr>
<td>Already given birth</td>
<td>17 (12%)</td>
</tr>
<tr>
<td>First pregnancy/birth</td>
<td>66 (47%)</td>
</tr>
<tr>
<td>Intend to breastfeed (n = 124)</td>
<td>126 (90%)</td>
</tr>
<tr>
<td>Currently breastfeeding (n = 17)</td>
<td>14 (82%)</td>
</tr>
<tr>
<td>Previous miscarriage</td>
<td>26 (19%)</td>
</tr>
<tr>
<td>Multiparous women (n = 74) who had previously participated in ANSC</td>
<td>55 (72%)</td>
</tr>
</tbody>
</table>

**Total n = 140**

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**Table 3. Percentage of women who ‘strongly agreed’ or ‘agreed’ with statements regarding ANSC services on a 5-item Likert scale**

<table>
<thead>
<tr>
<th>Statement about ANSC</th>
<th>‘Strongly agreed’ or ‘Agreed’</th>
</tr>
</thead>
<tbody>
<tr>
<td>I felt confident with my doctor</td>
<td>93%</td>
</tr>
<tr>
<td>I felt involved in my antenatal shared care this pregnancy</td>
<td>83%</td>
</tr>
<tr>
<td>Talking to my doctor about problems was easy</td>
<td>87%</td>
</tr>
<tr>
<td>I felt in control of my pregnancy</td>
<td>86%</td>
</tr>
<tr>
<td>I understood what was happening in this pregnancy</td>
<td>91%</td>
</tr>
<tr>
<td>When I asked my GP about specific information about my pregnancy it was always provided</td>
<td>96%</td>
</tr>
</tbody>
</table>
attending the public antenatal clinic. Most multiparous women (72%) had previously participated in ANSC and their re-attendance was likely to indicate their satisfaction with the model. This research reinforces the importance of providing women with realistic expectations of the service. One woman commented, ‘I was advised to bring a book because the wait was often long. I came prepared and had taken the day off work in case the wait and/or appointment were longer than expected. In that respect I wasn’t inconvenienced and didn’t feel frustrated’.

The majority of women were satisfied with the amount of information they had received from their GP; however, it seemed that infant feeding and iodine supplementation were not being adequately discussed. Lack of verbal guidance on breastfeeding is particularly concerning, as some limited research has suggested that the discussion of breastfeeding with healthcare professionals increases the initiation and duration of breastfeeding.10 Although breastfeeding initiation rates are relatively high in Australia, only 14% of infants are exclusively breastfed to 6 months,11 in line with World Health Organization recommendations.12 Qualitative research has highlighted that healthcare professionals lack confidence in discussing breastfeeding,13 and a recent survey has found that most GPs do not discuss breastfeeding with expectant mothers during antenatal consultations.14 There is currently no consistent approach to educating healthcare providers, including GPs, on breastfeeding in Australia.15 Encouragingly, however, an objective of the Australian National Breastfeeding Strategy (2010–2015) is to ensure that health professionals are appropriately trained to provide breastfeeding support and advice.16

There is a clear lack of information being provided to pregnant women about iodine requirements, compared with other key nutrition topics, which has been demonstrated previously.17 Just under half (41%) of the women reported that they had not received enough information to make an informed decision about the use of dietary supplements. Research has highlighted suboptimal rates of iodine supplementation in pregnant women,8–10 which is concerning as even mild iodine deficiency during pregnancy can result in reduced cognitive outcomes in childhood.20 Following a survey conducted by the research group in 2008,21 the public antenatal clinic included in this study changed its practice to provide a written information sheet, specifically focusing on iodine, to all pregnant patients. Despite this change in clinical practice, only 46% of participants reported having received written or verbal information about iodine. It is possible that women may have received but not read the handout and some research suggests that health information provided in the written format has little

### Table 4. Proportion of participants who reported that they discussed specific pregnancy related topics with their GP (closed question: yes; no; do not know)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Percentage of participants who reported discussing with GP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diet</td>
<td>79%</td>
</tr>
<tr>
<td>Exercise</td>
<td>66%</td>
</tr>
<tr>
<td>Physical changes</td>
<td>75%</td>
</tr>
<tr>
<td>Emotional Changes</td>
<td>62%</td>
</tr>
<tr>
<td>Infant Feeding (n=122)</td>
<td>30%</td>
</tr>
</tbody>
</table>

*Women at 24 weeks gestation or above and women who had already given birth

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**Figure 1.** Participants’ perception of whether they received adequate dietary information to make informed decisions about key nutrition related topics in pregnancy
impact if not also discussed verbally.22
Barriers to providing nutritional advice to
pregnant women identified by healthcare
professionals include inadequate time,
lack of training and insufficient educational
resources.7
The main limitations of the study are
the use of a non-representative, convenient
sample and potential bias introduced by
recruitment of volunteers who may have been
more interested in health than the general
population of pregnant women. As participants
were recruited while waiting in the public
antenatal clinic, responses may have been
further biased in a positive direction because of
the dissatisfaction with waiting times at the clinic. The poor
response rate for the initial recruitment phase is an additional
limitation. However, it is noted that the response rate for the
second recruitment phase is likely to be higher than 69% secondary
to being unable to invite all women enrolled to participate
despite best efforts. Non-English-speaking women were also
excluded from the study. In 2013, 26
women who participated in ANSC
required an interpreter.

Implications for general practice
Ensuring a high level of ongoing
communication between the
antenatal clinic and general practice
staff participating in ANSC, including
establishing realistic expectations and
delivering consistent nutrition and health
messages, is essential to providing
a high-quality service. Exploration of
antenatal care providers’ compliance
with information delivery and the method
doing delivery are warranted, as is further
research into how women use health and
nutrition information.

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Competing interests: None.
Provenance and peer review: Not commissioned, externality peer reviewed.

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