

Family practice versus specialist care for low-risk obstetrics

Examining patient satisfaction in Newfoundland and Labrador

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Abstract

Objective To investigate patient satisfaction with 3 models of low-risk obstetrics care: solo care by a GP, group care by GPs, and specialist care.

Design Three-arm study comparing results of a self-administered, anonymous questionnaire.

Setting Two academic family practices and the labour and delivery ward in St John's, Nfld.

Participants A total of 220 women deemed to have low-risk pregnancies; 82 women completed the questionnaire (37% response rate).

Main outcome measures Patient satisfaction scores obtained from a modified version of the Patient Expectations and Satisfaction with Prenatal Care instrument.

Results Low-risk maternity patients' satisfaction with obstetric care provided by GPs in a group-care setting was equivalent to that with obstetric care provided by GPs working solo and greater than that with obstetric care provided by specialists.

Conclusion Patients found that group care by GPs was an acceptable means of receiving obstetric services in a low-risk setting. Therefore, a group practice model might provide an attractive means for FPs to keep obstetrics within the scope of primary care.

EDITOR'S KEY POINTS

- The goal of this study was to evaluate patient satisfaction with the GP group-care model (in which a patient cannot be guaranteed that her "own" doctor will attend her delivery) and compare it with the previous generalist model (in which the GP follows the patient throughout pregnancy, delivery, and at least the 6-week postpartum period) and with the dominant specialist model (in which the patient is seen mainly by an obstetrician for prenatal care, attended by obstetric house staff during labour, then referred back to her GP for ongoing care).
- This study found that patient satisfaction with obstetric care by GPs in a group-care setting was equivalent to that of obstetric care by GPs working solo. Patients were less satisfied with the specialist model than with either primary care model.
- Group care affords family doctors the possibility of keeping obstetrics within the scope of primary care, while offering a flexible and sustainable lifestyle.

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Exclusivement sur le web

Grossesses à faible risque traitées en clinique familiale vs en spécialité

Évaluation de la satisfaction des patientes à Terre-Neuve-et-Labrador

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Résumé

Objectif Sonder le degré de satisfaction des patientes pour 3 modèles de soins obstétricaux à faible risque : ceux prodigués par un MF seul, ceux dispensés des MF pratiquant en groupe et ceux prodigués par un spécialiste.

POINTS DE REPÈRE DU RÉDACTEUR

- Cette étude avait pour but d'évaluer la satisfaction de patientes pour le modèle de soins prodigués par des MF pratiquant en groupe (dans lequel on ne peut garantir à la patiente qu'elle sera accouchée par son propre médecin) et de la comparer au modèle antérieur de l'omnipraticien (dans lequel le MF suit la patiente durant toute la grossesse, durant l'accouchement et durant au moins 6 semaines de postpartum) ainsi qu'au modèle le plus fréquent du spécialiste (dans lequel la patiente est vue principalement par un obstétricien pour les soins prénataux, traitée par le personnel de la salle d'accouchement durant le travail pour ensuite être retournée à son MF pour les soins subséquents).

- Cette étude a montré que la satisfaction des patientes pour les soins obstétricaux prodigués par des MF pratiquant en groupe était équivalente à la satisfaction pour les soins donnés par un MF travaillant en solo. Elles étaient moins satisfaites du modèle des spécialistes que des deux autres modèles de soins primaires.

- Le modèle de pratique de groupe permet aux médecins de famille de maintenir l'obstétrique dans le domaine des soins primaires, tout en permettant un style de vie souple et durable.

Type d'étude Étude à trois branches comparant les résultats d'un questionnaire anonyme auto-administré.

Contexte Deux cliniques de médecine familiale universitaires et la salle de travail et d'accouchement à St. John's, Terre-Neuve.

Participants Un total de 220 femmes considérées comme ayant une grossesse à faible risque; 82 d'entre elles ont rempli le questionnaire (taux de réponse de 37%).

Principaux paramètres à l'étude Les scores de satisfaction des patientes, tels qu'obtenus à partir d'une version modifiée de l'instrument Patient Expectation and Satisfaction with Prenatal Care.

Résultats La satisfaction exprimée par les patientes présentant une grossesse à faible risque pour les soins obstétricaux prodigués par des médecins pratiquant en groupe était équivalente à celle pour les soins prodigués par un MF pratiquant en solo et supérieure à celle pour les soins prodigués par des spécialistes.

Conclusion Les patientes ont jugé qu'en cas de faible risque, les soins obstétricaux dispensés par des MF travaillant en groupe sont une façon acceptable d'obtenir ces soins. Par conséquent, un modèle de pratique de groupe pourrait représenter pour les MF un moyen intéressant pour maintenir l'obstétrique dans le domaine des soins primaires.

Cet article a fait l'objet d'une révision par des pairs.
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Obstetrics as practised by FPs seems to be something of a dying art in Canada. In the 1970s, more than two-thirds of FPs in Canada were practising intrapartum obstetrics.¹ However, a survey published in 2010 showed that number was down to 10.5%.² One of the main reasons for this decline is changing lifestyle expectations, as a small survey of physicians at one hospital in British Columbia in 1999 illustrates.³ The authors found that nearly half of FPs who had attended at least one birth in the previous year intended to leave obstetrics within the next 5 years; those planning to leave were more likely to be fee-for-service physicians and to have missed personal events owing to obstetric duties. This decline of intrapartum care by FPs means that the number of women who receive continuous and longitudinal care from primary care providers throughout pregnancy, delivery, and motherhood is dropping, and that a growing proportion of primary care obstetrics is being handled by consultants.

Ironically, while FPs report giving up obstetrics for lifestyle and career reasons, studies have shown that those who do intrapartum care have greater job satisfaction, are less likely to be sued for their obstetric cases than for their non-obstetric cases, and are more likely to have younger patients and families in their practices.⁴

Recognizing that changes are necessary to make obstetrics attractive to FPs again, several family practices in Canada have adopted shared-call groups. In 1995, 23 FPs in 4 group practices came together in Brampton, Ont, to take one 24-hour period of obstetric call each 23 days. Shapiro⁵ evaluated patient satisfaction with this model and found that while 96% of respondents did not have their own doctors at their deliveries, 96% were satisfied with their prenatal care, 89% were satisfied with their intrapartum care, and 79% said they would choose the same model for a future pregnancy. Similarly, in 2002, a group practice in Marathon, Ont, adopted a shared-call model of obstetric care in which 7 FPs in one group practice each agreed to take a month of call; a patient who became pregnant was assigned to the doctor on call for the month of her due date and that doctor would also provide her prenatal care. An evaluation of this model⁶ revealed that 97% of patient respondents believed their obstetric care met or surpassed their expectations, and all respondents said they were satisfied with their experience; 90% said they would use the same model again. These studies suggest shared-call obstetric groups might provide pregnant women with high-quality birth experiences, while reducing the burden of obstetrics on individual FPs.

The problem of shrinking generalist obstetric care is particularly acute in St John's, Nfld. At the time of writing this paper, obstetricians (OBs) did most of the low-risk deliveries, and fewer than 6 FPs offered intrapartum care for an urban area of approximately 180 000 people.

In an effort to develop a sustainable model of primary obstetric care, the first 3 authors, all salaried physicians at academic family medicine teaching sites in St John's, created a new model of FP intrapartum care in July 2011. For 1 year, we followed our own patients (many of whom were referred to us from other FPs) through to 36 weeks of gestation; from 36 weeks' gestation to delivery, we saw patients in weekly prenatal clinics where patients were seen individually by all 3 doctors. Each of the doctors did a week of call on a 3-week on-call rota for triage, deliveries, and inpatient care. If a patient was not attended during labour by her own FP, she was attended by one of the other 2 FPs whom she had met several times. One author (M.K.) has since left the province, but the call group has continued with some minor changes.

Our objective is to evaluate patient satisfaction with the FP group-care model and compare it with the previous generalist model (in which the FP follows the patient throughout pregnancy, delivery, and at least the 6-week postpartum period) and with the dominant specialist model (in which the patient is seen mainly by an OB for prenatal care, attended by obstetric house staff during labour, then referred back to her FP for ongoing care). We are aware of no other study that has attempted such a comparison.

METHODS

We devised a 3-arm study, with patients drawn from 3 models of obstetric care: the traditional model of solo care (SC) by GPs, our model of group care (GC) by GPs, and the model of specialist care by OBs (called the OB group). We developed a survey tool based on a previously validated questionnaire called the *Patient Expectations and Satisfaction with Prenatal Care* instrument, created by Omar et al,⁷ which used a 5-point Likert scale. We used the questions from the questionnaire that were pertinent to our particular practice context. We then compiled a composite score for each respondent by calculating the mean of all responses. We assumed a moderate effect size of 0.25; for a power of 0.80, this meant our target sample size was 159 or 53 respondents per arm.

We used the electronic medical record at our clinics to compile the names of all women who had delivered between August 2011 and February 2012 under the current GC model of obstetric care and had delivered under the prior SC model during their previous pregnancies. If a patient was followed by a GP prenatally and attended by a GP during labour and delivery she was included, even if an OB was called in to do an assisted vaginal delivery or emergency operative delivery; excluded were women with multiple gestation, those who were

followed by OBs, those who received antenatal and postpartum care from midwives, and those who had elective operative deliveries. The charts were compiled and vetted by the clinic manager and a family medicine resident (J.M.) to keep the attending physicians blinded to the identities of the respondents. All names not excluded for the above reasons were randomized, and packages containing a cover letter, questionnaire, and self-addressed, stamped envelope for its return were mailed to 60 women in each of the SC and GC groups. We could not collect formal consent forms, as we were blinded to the respondents' identities, so consent was implied if patients completed the form. One week after the initial mail-out, a reminder postcard was sent. One month after the initial mail-out, nonresponders were sent duplicate packages. This Total Design Method has been shown to be effective in the family practice setting in achieving a high response rate.⁸

We recruited women from the OB group by providing nurses on the postpartum ward with questionnaires to hand out with discharge papers. Exclusion criteria for this group were multiple gestation, elective operative delivery, or delivery by a GP. Because we could not send reminder packages to these women, we distributed 100, rather than 60 packages to this group. Questionnaires received before the end of September 2012 were included in the analysis. This protocol was granted ethics approval by the Health Research Ethics Authority.

RESULTS

Twenty-one completed questionnaires were received from SC respondents, 35 from GC respondents, and 26 from OB respondents, for an overall response rate of 37%. Incomplete questionnaires were not included in the analysis. Demographic information is presented in **Table 1**. The mean ages of the groups did not differ significantly ($F=1.134$, $df=2$; $P=.327$). Although patients whose babies were delivered by GPs (both in the SC

and GC models) tended to have higher levels of education and higher parity, analysis using Pearson χ^2 test indicated that neither trend was significant (educational level $\chi^2=4.248$, $df=2$; $P=.120$; parity ANOVA [analysis of variance] $F=0.232$, $df=2$; $P=.793$). The emergency cesarean section rate was highest for the OB group and lowest for the SC group, but again, analysis using Pearson χ^2 test indicates that the proportion of delivery method did not differ between the 3 groups ($\chi^2=7.573$, $df=4$; $P=.109$).

Cronbach α for average satisfaction measures was .850, which met the usual criterion for good internal consistency.⁹ Therefore, the average patient satisfaction score is reliable. Aggregate satisfaction measures by model of care for each item of the questionnaire are presented in **Table 2**. Mean (SD) satisfaction measures were 1.17 (0.17) for the SC group, 1.24 (0.24) for the GC group, and 1.56 (0.52) for the OB group; lower scores indicated greater satisfaction. The ANOVA indicated at least 1 significant difference existed among the 3 groups ($F=9.660$, $df=2$; $P<.001$); post hoc analysis by Tukey multiple comparison procedure showed significant differences between the OB and GC groups ($P=.001$), as well as the OB and SC groups ($P=.001$), but not between the SC and GC groups ($P=.741$); that is, patients' satisfaction was approximately equal with the 2 GP models and greater than with the specialist model. Casual inspection of the comments section suggested the variance in satisfaction levels was due to longer time spent during appointments and to greater continuity of care in the 2 GP models. In spite of our low sample size, a post hoc power analysis showed we had at least 87% power to detect a significant difference between at least 2 groups, indicating that the study was fully powered.

DISCUSSION

The study is novel in that, to our knowledge, it is the first time an inquiry into patient satisfaction with low-risk

Table 1. Demographic characteristics of patient respondents from the solo care by GPs, group care by GPs, and the specialist care by obstetrician models of obstetric care

MODEL OF OBSTETRIC CARE	COMPLETE QUESTIONNAIRES RETURNED, N	THOSE WHO IDENTIFIED	MEAN (SD) AGE, Y	THOSE WITH POST-SECONDARY EDUCATION, %	MEAN (SD) PARITY	THOSE WHO HAD A SPONTANEOUS VAGINAL DELIVERY, %	THOSE WHO HAD ASSISTED VAGINAL DELIVERY, %	THOSE WHO HAD AN EMERGENCY CESAREAN SECTION, %
Solo care by GPs	21	0	32.1 (5.9)	85.7	1.67 (0.80)	95.2	4.8	0.0
Group care by GPs	35	0	32.1 (4.2)	97.1	1.71 (0.83)	80.0	11.4	8.6
Specialist care by obstetricians	26	2	30.1 (6.1)	80.8	1.58 (0.70)	65.4	11.5	23.1

Table 2. Mean (SD) satisfaction measures, by model of care: Scores are presented as the average rating on a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree); respondents' "not applicable" answers were excluded from mean scores.


SATISFACTION STATEMENT I AM SATISFIED WITH ...	MODEL OF CARE		
	SOLO-GP CARE	GROUP-GP CARE	OBSTETRICIAN CARE
• The explanation my provider gave to me about what was going to happen during my prenatal visits	1.00 (0.00)	1.14 (0.69)	1.58 (0.90)
• The explanation my provider gave to me about medical tests and procedures	1.00 (0.00)	1.11 (0.53)	1.5 (0.91)
• The information my provider gave to me about how things were going with my pregnancy	1.00 (0.00)	1.06 (0.24)	1.42 (0.76)
• The kinds of things my provider discussed during my prenatal visits	1.05 (0.22)	1.09 (0.28)	1.64 (0.95)
• The explanation my provider gave to me about what to expect when parenting a newborn	1.57 (0.93)	1.75 (1.08)	2.43 (1.2)
• The way my provider prepared me for labour and delivery	1.24 (0.70)	1.53 (0.90)	2.24 (1.33)
• The way my provider treated me	1.00 (0.00)	1.00 (0.00)	1.31 (0.74)
• The respect I was shown by my provider	1.00 (0.00)	1.03 (0.17)	1.31 (0.79)
• Being able to ask questions without embarrassment	1.00 (0.00)	1.00 (0.00)	1.28 (0.68)
• The time my provider took with me	1.05 (0.22)	1.03 (0.17)	1.81 (1.17)
• The interest and concern my provider showed me	1.00 (0.00)	1.03 (0.17)	1.64 (0.99)
• The way my provider dealt with all my medical problems	1.25 (0.79)	1.19 (0.54)	1.28 (0.61)
• The amount of time I waited to be seen by my provider	1.71 (0.90)	1.66 (0.87)	1.68 (1.07)
• My ability to schedule prenatal visits at a time convenient for me	1.48 (0.75)	1.63 (1.03)	1.35 (0.75)
• The total amount of time I spent at the office or clinic	1.52 (0.87)	1.66 (0.97)	1.77 (1.24)
• The overall quality of prenatal care I received from my provider	1.00 (0.00)	1.06 (0.24)	1.54 (0.81)
• The care my provider showed me during my labour	1.05 (0.23)	1.22 (0.61)	1.58 (1.06)
• The care my provider showed me during my delivery	1.05 (0.23)	1.25 (0.76)	1.48 (0.96)
• The outcome of my delivery (eg, my baby's health and safety, my health and safety)	1.05 (0.22)	1.20 (0.47)	1.20 (0.82)
• The skills my provider demonstrated during my delivery	1.05 (0.23)	1.29 (0.74)	1.29 (0.86)
• The postpartum care I received from my provider in hospital	1.25 (0.55)	1.23 (0.49)	1.57 (0.84)
• The postpartum care I received from my provider after discharge from hospital	1.3 (0.80)	1.23 (0.65)	1.6 (0.91)

maternity care has compared 3 distinct models of practice. We found that patient satisfaction with obstetric care provided by GPs in a group-care setting (a model in which a patient cannot be guaranteed that her "own" doctor will attend her delivery) was equivalent to that of obstetric care from GPs working solo (a model in which a patient is more likely to be attended by the person she expects, but one that exacts a higher personal toll from the provider). Patients were less satisfied with the specialist model than with either primary care model, likely owing to the reduced continuity of care for the mother-infant dyad, but this is speculation. One must bear in mind that in St John's, as in many other centres, FPs work in close collaboration with in-house obstetric colleagues.

Limitations

Our findings were limited by small sample size. They might also have been influenced by recall bias in 2 ways. First, patients in the OB group (who had a higher—although statistically not significant—rate of emergent cesarean sections) filled out questionnaires immediately after delivery, whereas patients who delivered by the GC model were typically responding on a more distant experience. Second, because our GC model of obstetric care fully replaced the previous SC model, women in the SC model were responding on an even more distant experience; however, this was our only means of generating an SC comparison group for our population.

Conclusion

This study found that obstetric care provided by FPs in a group-care setting is as patient-centred as obstetric care provided by FPs who work solo, and that group care affords FPs the possibility of keeping obstetrics within the scope of primary care, while offering a flexible and sustainable lifestyle. 

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Contributors

Drs Kidd, Avery, Duggan, and **McPhail** contributed to the concept and design of the study; data gathering, analysis, and interpretation; and preparing the manuscript for submission.

Competing interests

None declared

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